Community Health Needs Assessment
2016
EXECUTIVE SUMMARY

Weirton Medical Center (Hospital) is a nonprofit, acute-care general community hospital located in the city of Weirton in Brooke County, West Virginia. In partnership with physicians, the mission of the Hospital is to lead the tri-state area in the provision of coordinated, safe, effective, quality health care services. Excellence will be achieved in Community Health, Physician Relations, Employee Relations, and Affiliations through a process of teamwork, innovation, and continuous improvement.

This Community Health Needs Assessment (CHNA) was prepared on behalf of the Hospital, and focused on areas in, and surrounding, Weirton, West Virginia. The study considered services offered by hospitals in the area, population trends, socio-economic demographics, and the region’s overall sufficiency of health care providers in the community. The study included data obtained from numerous health organizations as well as interviews with community leaders, hospital staff, and the Hospital’s Board of Directors. This information is being used to determine the community’s future health needs.

The assessment identified keys risk factors based upon the population’s medical history (e.g., heart disease and diabetes). Additionally, the assessment used socioeconomic and demographic data to determine whether area health care providers are adequately assessing the community’s key risk factors. As part of this assessment and as prescribed by IRS section 501(r), this determination will be used in developing a forthcoming strategy to meet the community’s health needs. Furthermore, and as mandated by IRS section 501(r)(3)(B)(ii), the assessment as well as the Hospital’s strategy to meet the community’s health needs, will be made widely available to the public.

Multiple acute care hospitals as well as many other providers of community health, and primary and specialty care services, serve the Weirton area and surrounding communities. While the unique missions of each group define the types of services they provide, all health care organizations in the Weirton area focus on delivering high quality health services to the populations they serve. The following report covers the services available to the residents of the Weirton area and the surrounding communities.

Many factors will influence the levels of patient service volumes in the community. These factors include, but are not limited to: composition of physician staff, shifts toward greater utilization of ambulatory facilities, and continued regulatory and competitive pressures to reduce the average length of an inpatient stay. In addition, changes to federal legislation may affect providers of health care services.
The city of Weirton and surrounding communities are located in northern West Virginia, eastern Ohio, and southwestern Pennsylvania, which is approximately two and half hours east of Columbus, Ohio, and one hour west of Pittsburgh, Pennsylvania. These communities are accessible by major interstates and secondary roads.

Below are the significant components of the Community Health Needs Assessment:

- Service Area, Population, and Vital Statistics
- Socioeconomic Characteristics of the Service Area
- Health Status Indicators
- Results of Community Participation

Research Process

- Statistical data profile of Brooke County, West Virginia, and surrounding areas
- Online survey
- Key Informant interviews with community stakeholders

Key Areas of Opportunity

- Access to Care
- Health Behaviors
- Drug & Alcohol Abuse
- Physical Activity & Nutrition
- Public Health Education
- Tobacco Use
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INTRODUCTION

The Community Health Needs Assessment (CHNA) of Weirton Medical Center (Hospital) was conducted to identify health issues and needs as well as provide information to key decision makers to make a positive impact on the residents of the hospital’s service area. The results of the CHNA will enable the hospital as well as other community health care providers to collaborate to provide the necessary resources for the community.

To assist with the CHNA completion, Weirton Medical Center retained Arnett Carbis Toothman LLP, a regional accounting firm with offices in West Virginia, Ohio, and Pennsylvania. The assessment was designed to ensure compliance with current Internal Revenue Service (IRS) guidelines for charitable 501(c)(3) tax-exempt hospitals which require tax-exempt hospitals to conduct a CHNA every three years to identify the community’s health needs and adopt an implementation strategy to meet those needs. In addition, community benefits must be reported on IRS Form 990, Schedule H. As described in the instructions to Schedule H, community benefit activities or programs, “seek to achieve a community benefit objective, including improving access to health service, enhancing public knowledge, and relief of a government burden to improve health.”

The study considered services offered by health care providers in the area, population trends, socioeconomic demographics and the region’s overall sufficiency of mental health care providers in the community. Data was obtained from numerous health organizations as well as community leaders and hospital staff. This information was used to determine the community’s future health needs.

The assessment identified key risk factors based upon the population’s medical history. Additionally, the assessment used socioeconomic and demographic data to determine whether area health care providers adequately assess the community’s key risk factors. As part of this assessment and as prescribed by IRS section 501(r), this determination will be used in developing a forthcoming strategy to meet the community’s health needs. Furthermore, and as mandated by IRS section 501(r)(3)(B)(ii), the assessment, as well as the Hospital’s strategy to meet the community’s health needs, will be made widely available to the public on the Hospital’s website.
The purpose of the study was to gather current statistics and qualitative feedback on the key health issues facing service area residents. This Community Health Needs Assessment included both quantitative and qualitative research components including demographic data collection and stakeholder interviews.

The data collection process utilized the following external sources:

- Bureau of Business and Economic Research, College of Business and Economics, West Virginia University
- West Virginia Bureau for Public Health
- West Virginia Department of Health and Human Resources
- U.S. Department of Health and Human Resources
- Robert Wood Johnson Foundation: County Health Rankings System
- U.S. Census Bureau
- United States Department of Agriculture, Economic Research Service
- Substance Abuse and Mental Health Services Administration (SAMHSA)

Quantitative Data:

- Demographic data was compiled to depict the population, household, economic, education, income, vital, and other health care statistics.

- An online survey was conducted between March and May 2016. Hard copy surveys were also distributed to those without internet access. More than 300 surveys were completed and collected demographic and health related information to assess the health status, health care access, and other needs of the community.

Qualitative Data:

- Key informant interviews were conducted in March 2016. Information from those participants represented a variety of sectors including, but not limited to, the Hancock and Brooke County Health Department, Hancock County Board of Education, Urban Mission Ministries, and the Weirton Area Chamber of Commerce.
COMMUNITY HEALTH NEEDS ASSESSMENT OVERVIEW

HOSPITAL AND COMMUNITY PROFILE

Hospital Overview

Weirton Medical Center is a 238-bed acute care facility located on Colliers Way in Weirton, West Virginia, near the US Route 22 corridor adjacent to the Ohio, West Virginia, Pennsylvania border. Completed in 2002, the medical office complex annexes the main hospital. WMC has expanded services to the tri-state area with medical offices located in Oakdale and Pittsburgh, Pennsylvania.

The Hospital has provided quality healthcare since 1953. Since mid-2012, Weirton Medical Center has grown from the 238-bed acute care facility and one off-campus location to operating 38 sites in 3 states. Since its last CHNA, the Hospital has taken steps to meet the health care needs of residents in its service area. In 2014, the Weirton Medical Center Cancer Center opened which is affiliated with Allegheny Health Network Cancer Institute. Other new programs include the All About Women Suite offering high-risk obstetrics, vascular surgery, and The Vein Center at Weirton Medical Center.

Community Overview

Weirton Medical Center defined their current service based on an analysis of the geographic area where those utilizing WMC’s services reside. WMC’s primary service area includes Brooke and Hancock Counties, West Virginia, Jefferson County, Ohio, and Washington County, Pennsylvania. The analysis contained in this report is focused on these counties and provides state and national data as appropriate.
SERVICE AREA, POPULATION, AND VITAL STATISTICS

SERVICE AREA

Weirton Medical Center’s service area is defined based upon the geographical area from which a majority of patients utilizing hospital services reside in addition to additional border counties as they represent significant information to the community. While the Community Health Needs Assessment considers other types of health care providers, hospitals are the single largest provider of health care services and, therefore, most of the analysis centers around hospitals and their patients. Hospitals in WMC’s service area include Trinity Medical Center East/West, Life Line Hospital, Washington Hospital, Canonsburg Hospital, Ohio Valley Hospital, and Advanced Surgical Hospital.

The primary service area or “community” served by the Hospital was determined by identifying the zip code’s county and selecting the counties in which a majority of those patients reside. The primary service area includes Brooke and Hancock County, West Virginia, Washington County, Pennsylvania, and Jefferson County, Ohio. Exhibit 1 lists the top 20 zip codes of acute care discharges from January 1, 2015, through December 31, 2015.
### Exhibit 1

#### Service Area

**Summary of Top 20 Zip Codes by Inpatient Discharges (Descending Order)**

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Discharges</th>
<th>Percent of Total Discharges</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>26062</td>
<td>2,338</td>
<td>43%</td>
<td>43%</td>
</tr>
<tr>
<td>26037</td>
<td>543</td>
<td>10%</td>
<td>53%</td>
</tr>
<tr>
<td>26047</td>
<td>466</td>
<td>9%</td>
<td>61%</td>
</tr>
<tr>
<td>43952</td>
<td>352</td>
<td>6%</td>
<td>68%</td>
</tr>
<tr>
<td>26070</td>
<td>301</td>
<td>6%</td>
<td>73%</td>
</tr>
<tr>
<td>15021</td>
<td>230</td>
<td>4%</td>
<td>77%</td>
</tr>
<tr>
<td>26035</td>
<td>226</td>
<td>4%</td>
<td>81%</td>
</tr>
<tr>
<td>43964</td>
<td>206</td>
<td>4%</td>
<td>85%</td>
</tr>
<tr>
<td>43953</td>
<td>181</td>
<td>3%</td>
<td>89%</td>
</tr>
<tr>
<td>43938</td>
<td>123</td>
<td>2%</td>
<td>91%</td>
</tr>
<tr>
<td>26034</td>
<td>119</td>
<td>2%</td>
<td>93%</td>
</tr>
<tr>
<td>26050</td>
<td>66</td>
<td>1%</td>
<td>94%</td>
</tr>
<tr>
<td>43920</td>
<td>64</td>
<td>1%</td>
<td>95%</td>
</tr>
<tr>
<td>43907</td>
<td>55</td>
<td>1%</td>
<td>96%</td>
</tr>
<tr>
<td>43968</td>
<td>49</td>
<td>1%</td>
<td>97%</td>
</tr>
<tr>
<td>43910</td>
<td>40</td>
<td>1%</td>
<td>98%</td>
</tr>
<tr>
<td>15054</td>
<td>39</td>
<td>1%</td>
<td>99%</td>
</tr>
<tr>
<td>43944</td>
<td>32</td>
<td>1%</td>
<td>99%</td>
</tr>
<tr>
<td>43986</td>
<td>21</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>15019</td>
<td>20</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Total Discharges:** 5,471

**Cumulative Percent:** 100%
**POPULATION INFORMATION**

The population in the service area was forecasted based on data provided by the U.S. Census Bureau. Chart 1, includes the population data based on the 2010 census and extrapolated to estimate population trends from 2015 through 2030. As shown in Chart 2, the population of the service area is projecting a steady decline through 2030. While the total population is expected to decline, the utilization of health care services is not solely based on the population, but rather largely defined by the age groups that make up the total population. The aging of the population will provide for a steady demand for health care services.

**Table 1: Total Service Area Population**

<table>
<thead>
<tr>
<th>County</th>
<th>2010 Actual</th>
<th>2015 Actual</th>
<th>2020 Actual</th>
<th>2025 Actual</th>
<th>2030 Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hancock</td>
<td>30,676</td>
<td>29,861</td>
<td>29,019</td>
<td>28,154</td>
<td>27,215</td>
</tr>
<tr>
<td>Brooke</td>
<td>24,069</td>
<td>23,298</td>
<td>22,580</td>
<td>21,885</td>
<td>21,103</td>
</tr>
<tr>
<td>Jefferson</td>
<td>69,709</td>
<td>67,780</td>
<td>66,540</td>
<td>65,580</td>
<td>65,330</td>
</tr>
<tr>
<td>Washington</td>
<td>207,882</td>
<td>207,412</td>
<td>206,942</td>
<td>207,004</td>
<td>207,065</td>
</tr>
<tr>
<td>Total</td>
<td>332,336</td>
<td>328,351</td>
<td>325,081</td>
<td>322,623</td>
<td>320,713</td>
</tr>
</tbody>
</table>

Source: 2014 WV Population Projection, West Virginia University Bureau of Business and Economic Research

Source: Ohio.gov; Development Services Agency Population Projections


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**Chart 1: Total Service Area Population**

Source: 2014 WV Population Projection, West Virginia University Bureau of Business and Economic Research

Source: Ohio.gov; Development Services Agency Population Projections

The following charts illustrate, for each state in the service area, the breakdown of the population by age group. All three charts show the population trending toward older residents and a greater percentage in the 45-64 and 65 and over age categories.

Source: 2014 WV Population Projection, West Virginia University Bureau of Business and Economic Research
Ohio
Actual Population for 2010
Projections for 2015 to 2030

Pennsylvania
Actual Population for 2010
Projections for 2015 to 2030

**VITAL STATISTICS**

Chart 3 reflects the leading causes of death for residents of the service area, service area states, and the United States. The leading causes of death are determined by the average rate per one thousand residents. As shown in this chart, heart disease ranks highest among the service area, service area states, and the U.S.

**Chart 3**

**Comparison Rates for the Top Causes of Death**

Rate per 100,000 Residents, All Ages

Source: http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf
Source: https://www.odh.ohio.gov/healthstats/vitalstats/deathstat.aspx
SOCIOECONOMIC CHARACTERISTICS OF THE SERVICE AREA

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

EMPLOYMENT

In addition to Weirton Medical Center, major employers in the Weirton area, according to WorkForce West Virginia, include the following: Brooke County Board of Education, Mountaineer Park, Inc., ArcelorMittal USA, Inc., and Ball Metal Food Container, LLC. In February 2016, Ball Corporation announced plans to shut down the plant in early 2017. This will affect approximately 300 workers in Hancock County. Exhibit 2 below provides the percentage of employment by major industry in the service area, states, and the United States.

<table>
<thead>
<tr>
<th>Major Industries</th>
<th>Service Area</th>
<th>Ohio</th>
<th>Pennsylvania</th>
<th>West Virginia</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, fishing and hunting</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Mining, quarrying, and oil and gas extraction</td>
<td>3.6%</td>
<td>0.2%</td>
<td>0.6%</td>
<td>5.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.2%</td>
<td>0.5%</td>
<td>0.6%</td>
<td>1.1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Construction</td>
<td>11.0%</td>
<td>3.7%</td>
<td>4.2%</td>
<td>4.4%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13.0%</td>
<td>13.9%</td>
<td>10.4%</td>
<td>8.6%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>4.9%</td>
<td>5.0%</td>
<td>4.7%</td>
<td>3.7%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>11.2%</td>
<td>12.1%</td>
<td>12.6%</td>
<td>14.9%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>4.0%</td>
<td>3.5%</td>
<td>4.0%</td>
<td>2.5%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Information</td>
<td>1.8%</td>
<td>1.9%</td>
<td>2.2%</td>
<td>1.8%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>1.9%</td>
<td>5.4%</td>
<td>5.1%</td>
<td>3.1%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>1.2%</td>
<td>1.4%</td>
<td>1.2%</td>
<td>1.1%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>3.4%</td>
<td>5.2%</td>
<td>6.1%</td>
<td>4.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>2.3%</td>
<td>3.2%</td>
<td>3.8%</td>
<td>1.3%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Administrative and support and waste management and remediation services</td>
<td>4.8%</td>
<td>8.3%</td>
<td>6.0%</td>
<td>5.6%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Educational services</td>
<td>2.4%</td>
<td>2.5%</td>
<td>5.0%</td>
<td>1.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>17.6%</td>
<td>17.7%</td>
<td>18.5%</td>
<td>23.1%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>2.4%</td>
<td>1.4%</td>
<td>2.0%</td>
<td>1.4%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>8.9%</td>
<td>9.8%</td>
<td>8.6%</td>
<td>11.6%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>4.5%</td>
<td>4.3%</td>
<td>4.6%</td>
<td>4.3%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Industries not classified</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

TOTAL 100.0% 100.0% 100.0% 100.0% 100.0%

Source: http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml
Geography Area Series: County Business Patterns 2014 Business Patterns
EMPLOYMENT

As shown in Exhibit 3, the five-year unemployment rate averages of Brooke and Hancock County, West Virginia, as well as Washington County, Pennsylvania, were below their respective state averages. Jefferson County, Ohio, was equal to the state of Pennsylvania as well as the United States average.

INCOME

Exhibit 4 presents the median household income for the service area counties, their respective states, and the United States. Hancock and Jefferson Counties were below their respective states while Brooke and Washington Counties were above. Three of the four service area counties were below the national level. Only Washington County, Pennsylvania, was above the national level for median household income.
Exhibit 5 presents the percentage of the population living in poverty for the counties included in the service area, their respective states, and the United States. As Exhibit 5 illustrates, all counties in the service area have experienced increases in the percentage of those living in poverty. The highest increase was experienced in Jefferson County, Ohio, while West Virginia experienced a slight increase for the time period.

Chart 4 presents the percent of enrolled students approved for free or reduced priced lunches for the service area states. Only Ohio experienced a reduction in the percentage of enrolled students approved for free or reduced-price lunches.

**Chart 4**

Percent of Enrolled Students Approved for Free or Reduced-Price Lunches
2012 and 2013 (WV), 2015 and 2016 (OH), 2015 and 2016 (PA)

Sources: County Health Rankings and Roadmaps (West Virginia 2013 and 2012)
http://www.education.pa.gov
http://education.ohio.gov
http://www.countyhealthrankings.org/app/west-virginia/2015/overview
EDUCATION

The education levels of a population have been shown to correlate to its overall health and welfare. Exhibit 6 presents the distribution of education levels for those 25 years and over in the service area, Ohio, Pennsylvania, West Virginia, and the United States for 2010-2014. Although the service area and all three states had a higher level of high school graduates when compared to the United States average, the national average was higher for those with some college or a college degree.

Exhibit 6
Highest Level of Education Attained
2009-2014

<table>
<thead>
<tr>
<th></th>
<th>Service Area</th>
<th>Ohio</th>
<th>Pennsylvania</th>
<th>West Virginia</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a high school diploma</td>
<td>9.9%</td>
<td>11.2%</td>
<td>11.0%</td>
<td>15.6%</td>
<td>13.6%</td>
</tr>
<tr>
<td>High school graduate</td>
<td>41.1%</td>
<td>34.5%</td>
<td>36.8%</td>
<td>40.9%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Some college or Associate's degree</td>
<td>22.6%</td>
<td>25.6%</td>
<td>28.1%</td>
<td>24.8%</td>
<td>29.1%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>26.4%</td>
<td>28.7%</td>
<td>24.1%</td>
<td>18.8%</td>
<td>29.3%</td>
</tr>
</tbody>
</table>

SOURCE: U.S. Census Bureau American FactFinder, 2010-2014 American Community Survey

Chart 5 presents the percent of four year olds enrolled in a qualified pre-kindergarten program for the service area counties in West Virginia as well as the state of West Virginia. Both Hancock and Brooke Counties are below the state percentage of 69%.

Chart 5
Percent of Four-Year-Olds Enrolled in a Qualified Pre-Kindergarten Program
2013

Source: http://datacenter.kidscount.org
HEALTH STATUS INDICATORS

HEALTH BEHAVIORS

Exhibit 7 illustrates the percentage of population for the health status indicators of each service area county and their respective states. The lower percentage and ranking indicates better performance in the respective rankings. Washington County, Pennsylvania, had better performance for all but one health status indicator. Excessive drinking was lowest in Hancock County, West Virginia.

<table>
<thead>
<tr>
<th>Health Status Indicator</th>
<th>West Virginia</th>
<th>Pennsylvania</th>
<th>Ohio</th>
<th>Brooke (WV)</th>
<th>Hancock (WV)</th>
<th>Jefferson (OH)</th>
<th>Washington (PA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults in fair / poor health</td>
<td>24%</td>
<td>16%</td>
<td>17%</td>
<td>19%</td>
<td>20%</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Adult smoking</td>
<td>27%</td>
<td>20%</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>Adult obesity</td>
<td>34%</td>
<td>29%</td>
<td>30%</td>
<td>35%</td>
<td>38%</td>
<td>34%</td>
<td>29%</td>
</tr>
<tr>
<td>Excessive drinking</td>
<td>10%</td>
<td>18%</td>
<td>19%</td>
<td>12%</td>
<td>11%</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>Health behaviors county ranking</td>
<td>9</td>
<td>23</td>
<td>71</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: University of Wisconsin Population Health Institute. County Health Rankings 2016

PHYSICAL ENVIRONMENT

Exhibit 8 includes environmental factors such as air pollution, drinking water violations, housing problems, and work commute information. The service area compared unfavorably to the counties’ respective states for air pollution, and counties and states were all higher than the U.S. Median. The service area counties and the State of West Virginia compared favorably to the U.S., Ohio, and Pennsylvania for housing problems. Washington, Pennsylvania was the only service area county to have a drinking water violation.

<table>
<thead>
<tr>
<th>Environmental Factor</th>
<th>U.S. Median</th>
<th>West Virginia</th>
<th>Pennsylvania</th>
<th>Ohio</th>
<th>Brooke (WV)</th>
<th>Hancock (WV)</th>
<th>Jefferson (OH)</th>
<th>Washington (PA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Pollution</td>
<td>11.9</td>
<td>13.2</td>
<td>12.9</td>
<td>13.5</td>
<td>14.0</td>
<td>14.1</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Drinking Water Violations</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Severe Housing Problems</td>
<td>14%</td>
<td>11%</td>
<td>15%</td>
<td>15%</td>
<td>9%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Driving Alone to Work</td>
<td>80%</td>
<td>82%</td>
<td>77%</td>
<td>84%</td>
<td>85%</td>
<td>83%</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>Long Commute - Driving Alone</td>
<td>29%</td>
<td>33%</td>
<td>35%</td>
<td>29%</td>
<td>38%</td>
<td>33%</td>
<td>34%</td>
<td>38%</td>
</tr>
</tbody>
</table>

*Violations reported for counties: Yes - indicates the presence of a violation, No - indicates no violation.

¹Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)
MENTAL ILLNESS

Exhibit 9 presents statistics for mental illness among persons aged 18 or older at a national level and for the states in the service area. West Virginia was listed as having the highest rate for serious mental illness and any mental illness.

Exhibit 9
State Estimates of Adult Mental Illness among Persons Aged 18 or Older
2011-2012

<table>
<thead>
<tr>
<th>Measure</th>
<th>West Virginia</th>
<th>Pennsylvania</th>
<th>Ohio</th>
<th>Brooke (WV)</th>
<th>Hancock (WV)</th>
<th>Jefferson (OH)</th>
<th>Washington (PA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured</td>
<td>21%</td>
<td>12%</td>
<td>13%</td>
<td>18%</td>
<td>20%</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Preventable Hospital Stays</td>
<td>81</td>
<td>57</td>
<td>65</td>
<td>85</td>
<td>107</td>
<td>91</td>
<td>76</td>
</tr>
<tr>
<td>Diabetic Screening</td>
<td>84%</td>
<td>86%</td>
<td>85%</td>
<td>79%</td>
<td>81%</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Mammography Screening</td>
<td>58%</td>
<td>64%</td>
<td>60%</td>
<td>54%</td>
<td>50%</td>
<td>58%</td>
<td>53%</td>
</tr>
<tr>
<td>Ranking for Clinical Care</td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>27</td>
<td>72</td>
<td>51</td>
</tr>
</tbody>
</table>

http://www.samhsa.gov/data/2k14/NSDUH170/sr170-mental-illness-state-estimates-2014.htm

CLINICAL CARE

Chart 6 includes clinical care statistics and rankings for the service area counties and states. The lower percentage and ranking indicates better performance in the respective rankings. As shown in this chart, Brooke and Hancock Counties in West Virginia had better performance than Jefferson (OH) and Washington (PA) counties.

Chart 6
Clinical Care

PRIMARY CARE

Chart 7 illustrates the number of primary care physicians and dentist for every 100,000 persons for the service area, at a national level and for West Virginia. As shown in the chart, all service area counties and West Virginia are below the national benchmark for primary care physicians and dentists. With the aging population of the service area, it is expected that the demand for these health services will continue to increase.

SOURCE: http://www.countyhealthrankings.org
ILLICIT DRUG USAGE

Exhibit 10 summarizes the percentage of marijuana and illicit drug users by age group, the percentage of illicit drug dependence or abuse by age group, and the percentage of those needing but not receiving treatment for illicit drug use by age group in West Virginia and the United States. These statistics are based on the 2013-2014 National Survey on Drug Use and Health (NSDUH).

Assessing specifically the 12-17 and 18-25 age groups for Illicit Drug Use, West Virginia is below the national average for all categories except Past Month Use of Illicit Drugs Other Than Marijuana and Past Year Nonmedical Pain Relieve Use. For the same age groups, in terms of drug dependence, West Virginia has a higher percentage in Illicit Drug Dependence, Dependence or Abuse, and Needing But Not Receiving Treatment for Illicit Drug Use for the 18-25 age group.

<table>
<thead>
<tr>
<th>West Virginia</th>
<th>All Ages</th>
<th>12-17</th>
<th>18-25</th>
<th>26+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Illicit Drugs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Month Illicit Drug Use</td>
<td>7.82</td>
<td>7.26</td>
<td>18.91</td>
<td>6.20</td>
</tr>
<tr>
<td>Past Year Marijuana Use</td>
<td>10.93</td>
<td>10.87</td>
<td>28.49</td>
<td>8.27</td>
</tr>
<tr>
<td>Past Month Marijuana Use</td>
<td>6.30</td>
<td>5.60</td>
<td>16.99</td>
<td>4.75</td>
</tr>
<tr>
<td>Past Month Use of Illicit Drugs Other Than Marijuana</td>
<td>2.96</td>
<td>2.88</td>
<td>6.86</td>
<td>2.38</td>
</tr>
<tr>
<td>Past Year Cocaine Use</td>
<td>1.18</td>
<td>0.45</td>
<td>3.62</td>
<td>0.88</td>
</tr>
<tr>
<td>Past Year Nonmedical Pain Relieve Use</td>
<td>3.88</td>
<td>4.28</td>
<td>8.34</td>
<td>3.16</td>
</tr>
<tr>
<td><strong>Past Year Dependence, Abuse, and Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illicit Drug Dependence</td>
<td>2.08</td>
<td>1.87</td>
<td>5.69</td>
<td>1.56</td>
</tr>
<tr>
<td>Illicit Drug Dependence or Abuse</td>
<td>2.94</td>
<td>3.16</td>
<td>7.50</td>
<td>2.23</td>
</tr>
<tr>
<td>Needing But Not Receiving Treatment for Illicit Drug Use</td>
<td>2.65</td>
<td>2.87</td>
<td>7.21</td>
<td>1.93</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>United States</th>
<th>All Ages</th>
<th>12-17</th>
<th>18-25</th>
<th>26+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Illicit Drugs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Month Illicit Drug Use</td>
<td>9.77</td>
<td>9.11</td>
<td>21.75</td>
<td>7.81</td>
</tr>
<tr>
<td>Past Year Marijuana Use</td>
<td>12.90</td>
<td>13.28</td>
<td>31.78</td>
<td>9.63</td>
</tr>
<tr>
<td>Past Month Marijuana Use</td>
<td>7.96</td>
<td>7.22</td>
<td>19.32</td>
<td>6.11</td>
</tr>
<tr>
<td>Past Month Use of Illicit Drugs Other Than Marijuana</td>
<td>3.30</td>
<td>3.30</td>
<td>6.58</td>
<td>2.70</td>
</tr>
<tr>
<td>Past Year Cocaine Use</td>
<td>1.66</td>
<td>0.60</td>
<td>4.51</td>
<td>1.30</td>
</tr>
<tr>
<td>Past Year Nonmedical Pain Relieve Use</td>
<td>4.06</td>
<td>4.67</td>
<td>8.32</td>
<td>3.26</td>
</tr>
<tr>
<td><strong>Past Year Dependence, Abuse, and Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illicit Drug Dependence</td>
<td>1.88</td>
<td>1.88</td>
<td>4.98</td>
<td>1.35</td>
</tr>
<tr>
<td>Illicit Drug Dependence or Abuse</td>
<td>2.64</td>
<td>3.50</td>
<td>7.00</td>
<td>1.79</td>
</tr>
<tr>
<td>Needing But Not Receiving Treatment for Illicit Drug Use</td>
<td>2.35</td>
<td>3.29</td>
<td>6.40</td>
<td>1.55</td>
</tr>
</tbody>
</table>

PREGNANCY AND BIRTH DATA

The wellbeing of mothers and babies is a critical component of a community’s overall health. Healthy pregnancies help to provide a better start in life and improve the health of future generations. A review of public health data available included prenatal care, pregnancy risk factors, percentage of low birthweight births, and teen pregnancy. Exhibit 11 illustrates pregnancy and birth data for the service area and West Virginia. The percentage of low birthweight births in the service area were at or below the state percentage. All service area counties reported alcohol use during pregnancy at or below the state rate, while only one county reported a rate below the State average for tobacco use during pregnancy. Serious risks to babies whose mothers smoked during their pregnancy include Sudden Infant Death Syndrome (SIDS), low birthweight, birth defects, attention deficit/hyperactivity disorder, neurodevelopmental disorders, and behavioral/psychiatric disorders.

Exhibit 11
Pregnancy/Birth Data

<table>
<thead>
<tr>
<th>Selected Factors</th>
<th>Brooke (WV)</th>
<th>Hancock (WV)</th>
<th>Jefferson (OH)</th>
<th>Washington (PA)</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Rate per 1,000 Population</td>
<td>7.6</td>
<td>8.5</td>
<td>9.3</td>
<td>9.5</td>
<td>11.2</td>
</tr>
<tr>
<td>Number of Births</td>
<td>180</td>
<td>258</td>
<td>649</td>
<td>1,982</td>
<td>20,829</td>
</tr>
<tr>
<td>% of Births Delivered in Hospital</td>
<td>98.9%</td>
<td>99.6%</td>
<td>N/A</td>
<td>99.4%</td>
<td>99.4%</td>
</tr>
<tr>
<td>% of Low Birthweight Births</td>
<td>9.4%</td>
<td>8.9%</td>
<td>6.6%</td>
<td>7.3%</td>
<td>9.4%</td>
</tr>
<tr>
<td>% Births to Mothers Under 18</td>
<td>1.7%</td>
<td>3.5%</td>
<td>3.9%</td>
<td>N/A</td>
<td>2.7%</td>
</tr>
<tr>
<td>% of Births - Prenatal Care Began in First Trimester</td>
<td>77.1%</td>
<td>75.4%</td>
<td>61.6%</td>
<td>81.8%</td>
<td>81.5%</td>
</tr>
<tr>
<td>% of Births - Prenatal Care Began in Second Trimester</td>
<td>19.4%</td>
<td>18.1%</td>
<td>N/A</td>
<td>14.5%</td>
<td>14.9%</td>
</tr>
<tr>
<td>% of Births - Prenatal Care Began in Third Trimester</td>
<td>2.9%</td>
<td>4.4%</td>
<td>N/A</td>
<td>3.1%</td>
<td>3.0%</td>
</tr>
<tr>
<td>% of Births - No Prenatal Care</td>
<td>0.6%</td>
<td>2.0%</td>
<td>N/A</td>
<td>0.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Pregnancy Risk Factor: Alcohol Use</td>
<td>0.0%</td>
<td>0.0%</td>
<td>N/A</td>
<td>N/A</td>
<td>0.4%</td>
</tr>
<tr>
<td>Pregnancy Risk Factor: Tobacco Use</td>
<td>32.8%</td>
<td>35.2%</td>
<td>28.0%</td>
<td>22.0%</td>
<td>25.6%</td>
</tr>
</tbody>
</table>

BRFSS FINDINGS

The West Virginia Behavioral Risk Factor Surveillance System (BRFSS) measures a range of risk factors that can affect our health. The BRFSS survey is conducted by telephone and represents a collaborative effort between the West Virginia Health Statistics Center (WVHSC) and the Centers for Disease Control and Prevention (CDC) in Atlanta. Standardized survey methods are provided by the CDC. All 50 states, the District of Columbia, and several U.S. territories now participate in the BRFSS. Chart 8 presents the findings for access, physical activity, chronic disease, environment, tobacco use, mental health, and substance abuse for the West Virginia counties in the service area, West Virginia, and the United States. As shown in this chart, West Virginia was higher than the national level for all but two indicators. Hypertension ranked the highest while Asthma ranked lowest in the state.

Source: 2013 West Virginia Behavioral Risk Factor Survey Report
ACCESS TO CARE

FEDERALLY DESIGNATED AREAS

The criteria used to determine shortage designations is developed by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA). Designations are for health professional shortage areas, medically underserved areas, and medically underserved populations. The following is a brief description of these designations:

• **Health Professional Shortage Area (HPSA):** HPSA designations are based on general HPSA designation criteria, plus additional guidelines specific to each of the three types of designations: primary care, dental, and mental health services.

• **Medically Underserved Area (MUA):** MUAs consider several health and welfare statistics of a population, including poverty, age, and infant mortality, in addition to the number of physicians serving the area.

• **Medically Underserved Population (MUP):** areas that do not meet the qualifications of MUA designation can qualify for MUP status if there are unusual local conditions that are a barrier to access for health care services.

As shifts occur in the population and of the practicing locations of health care professionals, the criteria used for initial federal shortage designations is periodically reevaluated. Some areas previously designated as a shortage area may have seen an influx of health care professionals and no longer meet the requirements for designation. Conversely, if an area sees an out-migration of health care professionals, this area may qualify for a health shortage designation. Exhibit 12 illustrates the shortage designations for the areas comprising the primary and secondary service areas. While this exhibit presents the counties within the service area, the designation may only include portions within that county.

<table>
<thead>
<tr>
<th>County</th>
<th>Health Professional Service Area</th>
<th>Medically Underserved Area / Medically Underserved Population</th>
<th>Designation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary Care</td>
<td>Dental</td>
<td>Mental Health</td>
</tr>
<tr>
<td>Brooke County</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hancock County</td>
<td>Yes¹</td>
<td>Yes¹</td>
<td>Yes¹</td>
</tr>
<tr>
<td>Jefferson County (OH)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Washington County (PA)</td>
<td>Yes²</td>
<td>Yes²</td>
<td>Yes²</td>
</tr>
</tbody>
</table>

¹Facility: Change, Inc., Dba Family Medical Care
²Wood/McDonald Family Medicine, Centerville Clinics, Low Income-Mon Valley
³Wood/McDonald Family Medicine, Centerville Clinics

Exhibit 12
Federal Shortage Designations
As of June 2016
Estimated Demand for Primary Care and Emergency Services

Utilization can be projected using national averages and population estimates. An important indicator regarding the future utilization of health care services is the size of the market for those services as determined by applying national average use rates to the population of the service area. Exhibits 13 and 14 show projected physician office and emergency department visits using national average use rates from the National Center for Health Statistics. As shown in Exhibit 13, the 65 and older age group generates the highest number of physician office visits per person. This equates to the highest number of estimated visits for the service area population. While the same age group also has the highest number of emergency department visits per person, the 15-44 age group is estimated to have the most emergency department visits due to the higher service area population for this age group. Using the estimated population statistics for 2020 in Exhibit 14, the 65 and older age group is again estimated to have the highest number of physician office visits, but the 15-44 year olds will continue having the highest number of projected emergency department visits.

---

**Exhibit 13**

<table>
<thead>
<tr>
<th>Age</th>
<th>Estimated 2014 Service Area Population</th>
<th>Estimated Physician Office Visits per Person</th>
<th>Estimated Physician Office Visits</th>
<th>Emergency Department Visits per Person</th>
<th>Estimated Emergency Department Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>54,443</td>
<td>2.41</td>
<td>131,318</td>
<td>0.41</td>
<td>22,104</td>
</tr>
<tr>
<td>15-44</td>
<td>120,986</td>
<td>2.13</td>
<td>258,263</td>
<td>0.50</td>
<td>60,232</td>
</tr>
<tr>
<td>45-64</td>
<td>93,702</td>
<td>3.36</td>
<td>314,371</td>
<td>0.36</td>
<td>34,108</td>
</tr>
<tr>
<td>65+</td>
<td>59,616</td>
<td>5.92</td>
<td>352,748</td>
<td>0.51</td>
<td>30,285</td>
</tr>
<tr>
<td>Total</td>
<td>328,748</td>
<td></td>
<td>1,056,699</td>
<td></td>
<td>146,729</td>
</tr>
</tbody>
</table>

Sources:
- Population Projections: http://factfinder.census.gov
- Physician visits: National Ambulatory Medical Care Survey 2012
- Emergency visits: National Hospital Ambulatory Medical Care Survey-2011 Emergency Department Summary Tables

**Exhibit 14**

<table>
<thead>
<tr>
<th>Age</th>
<th>Year 2020 Service Area Population</th>
<th>Physician Office Visits per Person</th>
<th>Estimated Physician Office Visits</th>
<th>Emergency Department Visits per Person</th>
<th>Projected Emergency Department Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>53,866</td>
<td>2.41</td>
<td>129,926</td>
<td>0.41</td>
<td>21,870</td>
</tr>
<tr>
<td>15-44</td>
<td>119,716</td>
<td>2.13</td>
<td>255,551</td>
<td>0.50</td>
<td>59,600</td>
</tr>
<tr>
<td>45-64</td>
<td>92,613</td>
<td>3.36</td>
<td>310,716</td>
<td>0.36</td>
<td>33,711</td>
</tr>
<tr>
<td>65+</td>
<td>58,886</td>
<td>5.92</td>
<td>348,428</td>
<td>0.51</td>
<td>29,914</td>
</tr>
<tr>
<td>Total</td>
<td>325,081</td>
<td>1,044,621</td>
<td>146,095</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- Population Projections (WV): West Virginia University College of Business & Economics, "Population Trends in West Virginia through 2030"
- Physician visits: National Ambulatory Medical Care Survey 2012
- Emergency visits: National Hospital Ambulatory Medical Care Survey-2011 Emergency Department Summary Tables
**Health Facility Inventory**

In addition to the Hospital, health facilities in the service area include Trinity Health System, Life Line Hospital, Washington Hospital, Canonsburg Hospital, Ohio Valley Hospital, and Advanced Surgical Hospital, and Change, Inc. The following provides a description of those facilities:

- **Trinity Health System (THS)** is a nonprofit organization located in Steubenville, Ohio. THS operates two acute care facilities – Trinity Medical Center East and Trinity Medical Center West in addition to the Tony Teramana Cancer Center and the Trinity Professional Group. All facilities are located in Steubenville, Ohio. Services include inpatient and outpatient services: acute care, skilled care, long-term care, inpatient physical rehabilitation, behavioral medicine, cardiac rehabilitation, diagnostic, emergency, dialysis, lithotripsy, endoscopy, and chemotherapy services.

- **Life Line Hospital** is a long-term acute care (LTAC) hospital located in Wintersville, Ohio, specializing in the management of medically complex patients. The facility offers a variety of inpatient and outpatient hospital services, including comprehensive respiratory services, ventilator weaning, dialysis, extended IV antibiotic therapy, wound care, physical/occupational/speech therapy, and nutritional services.

- **Washington Hospital (WH)** is a nonprofit hospital in Washington, Pennsylvania. WH’s services and specialties include cardiovascular diagnostics and surgery, orthopedics, neurosciences, women’s health, cancer care, children’s therapy, rehabilitation, and advanced imaging, among many others.

- **Advanced Surgical Hospital (ASH)** is a physician owned hospital in Washington, Pennsylvania. ASH offers elective surgery for orthopedic, podiatric, pain management, physical therapy, sleep study, and magnetic resonance imaging (MRI) services.

- **Change, Inc.** is a community action and health agency that operates the Family Medical Care Community Health Center, a Federally Qualified Health Center FQHC located in Weirton, West Virginia. The facility provides a full range of primary care services to the service area.
Exhibit 15 summarizes the short-term, long-term, and specialty care inpatient beds for the acute care hospitals in the service area.

### Exhibit 15
**Available Hospital Beds**
**As of June 2015**

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Licensed Beds</th>
<th>Staffed Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weirton Medical Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult and Pediatric</td>
<td>172</td>
<td>118</td>
</tr>
<tr>
<td>Alcohol/Chem</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ICU</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Skilled Nursing</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Subprovider - IPF (psych)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Subprovider - IRF (rehab)</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>238</strong></td>
<td><strong>179</strong></td>
</tr>
<tr>
<td>Trinity Health System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult and Pediatric</td>
<td>342</td>
<td>189</td>
</tr>
<tr>
<td>Newborn</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Alcohol/Chem</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>ICU</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Skilled Nursing</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Subprovider - IPF (psych)</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Subprovider - IRF (rehab)</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
<td><strong>325</strong></td>
</tr>
<tr>
<td>Life Line Hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-Term Acute Care (LTAC)</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

**TOTAL**

<table>
<thead>
<tr>
<th></th>
<th>Licensed Beds</th>
<th>Staffed Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult and Pediatric</td>
<td>514</td>
<td>307</td>
</tr>
<tr>
<td>Newborn</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Alcohol/Chem</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>ICU</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>Skilled Nursing</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>LTAC</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Subprovider - IPF (psych)</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Subprovider - IRF (rehab)</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>774</strong></td>
<td><strong>540</strong></td>
</tr>
</tbody>
</table>

Sources: West Virginia Health Care Authority: Hospital Uniform report, Ohio Department of Health
Services Provided

The market share of a hospital relative to that of others in the market area may be based largely on the services required by patients and the availability of those services at each facility. While all hospitals in the service area provide short-term acute care services, some of these hospitals provide specialized inpatient and outpatient services that meet the specific needs of residents in the community. These specialized services complement other services provided within the facility and other health care providers operating in the service area.

Inpatient Services

Weirton Medical Center provides short-term acute care services to adult and pediatric patients in addition to long-term care and psychiatric inpatient services. Exhibit 16 presents the fiscal year 2015 inpatient discharges by type of service. As shown in the exhibit, over 80% of the inpatient discharges represented inpatient services to adults and pediatrics.

Exhibit 16
Inpatient Discharges by Patient Type
FY 2015

<table>
<thead>
<tr>
<th>Service</th>
<th>Discharges</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults and pediatrics</td>
<td>5,489</td>
<td>83.3%</td>
</tr>
<tr>
<td>Nursery</td>
<td>408</td>
<td>6.2%</td>
</tr>
<tr>
<td>Skilled Nursing Facility</td>
<td>536</td>
<td>8.1%</td>
</tr>
<tr>
<td>IPF (Psych)</td>
<td>5</td>
<td>0.1%</td>
</tr>
<tr>
<td>IRF (Rehab)</td>
<td>153</td>
<td>2.3%</td>
</tr>
<tr>
<td>Total</td>
<td>6,591</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chart 9 presents the payor distribution of inpatient discharges at Weirton Medical Center. For fiscal years 2014 and 2015, the Hospital experienced an increase in Medicaid utilization due primarily to Medicaid expansion in West Virginia while Medicare remained stable. As shown in the chart, Medicare patients comprise a significant portion of the Hospital’s discharges. This composition follows the general trend of an older population which would be covered under the Medicare program. As the population ages, the percentage of Medicare recipients will increase and, therefore, an increase of Medicare discharges and overall utilization is expected.

Chart 10
Weirton Medical Center
Inpatient Discharges by Payor
2014-2015

SOURCE: UFR via WVHCA (YODA), Annual Reports 2015, Table 12
Chart 10 represents the Top 10 Diagnosis-Related Groups (DRGs) of all inpatient discharges from Weirton Medical Center for 2014. The top three DRGs by patient days are related to respiratory diseases. With over one-fourth of West Virginians smoking, the high volume of inpatient stays related to these diseases is expected. As shown in the chart, the top DRG based on patient days was Chronic Obstructive Pulmonary Disease (COPD) followed by Pneumonia with major complication or comorbidity.

Chart 11
Weirton Medical Center
Top 10 Diagnosis-Related Groups (DRGs) by Patient Days
2014

<table>
<thead>
<tr>
<th>DRG</th>
<th>Description</th>
<th>Patient Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>190</td>
<td>Chronic Obstructive Pulmonary Disease W MCC¹</td>
<td>1,015</td>
</tr>
<tr>
<td>193</td>
<td>Simple Pneumonia &amp; Pleurisy W MCC¹</td>
<td>894</td>
</tr>
<tr>
<td>194</td>
<td>Simple Pneumonia &amp; Pleurisy W CC²</td>
<td>679</td>
</tr>
<tr>
<td>871</td>
<td>Septicemia or Severe Sepsis W/O MV&gt;96 Hours W MCC³⁻¹</td>
<td>635</td>
</tr>
<tr>
<td>177</td>
<td>Respiratory Infections &amp; Inflammations W MCC¹</td>
<td>554</td>
</tr>
<tr>
<td>795</td>
<td>Normal Newborn</td>
<td>549</td>
</tr>
<tr>
<td>603</td>
<td>Cellulitis W/O MCC¹</td>
<td>518</td>
</tr>
<tr>
<td>291</td>
<td>Heart Failure &amp; Shock W MCC¹</td>
<td>501</td>
</tr>
<tr>
<td>470</td>
<td>Major Joint Replacement or Reattachment of Lower Extremity W MCC¹</td>
<td>451</td>
</tr>
<tr>
<td>775</td>
<td>Vaginal Delivery W/O Complicating Diagnoses</td>
<td>442</td>
</tr>
</tbody>
</table>

¹MCC - Major complication or comorbidity
²CC - Complication or comorbidity
³MV - Mechanical Ventilation
COUNTY HEALTH DEPARTMENTS

County health departments provide a broad range of preventive care and primary care services designed to improve the overall health and wellness of residents by providing or assuring the provision of community based health services. Through planning and direct service delivery, these departments focus on health promotion, disease prevention, and direct intervention.

Exhibit 17 provides a summary of the services provided by the county health departments located in the service area:

<table>
<thead>
<tr>
<th>Health Department Service</th>
<th>Brooke County</th>
<th>Hancock County</th>
<th>Jefferson County</th>
<th>Washington County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast and cervical cancer screenings</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer Information Specialist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community education</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dental services</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Environmental services</td>
<td></td>
<td></td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Epidemiology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family planning</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>General Health</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>HIV / Aids</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Immunizations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lab screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right from the Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexually transmitted diseases</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Threat Preparedness</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Wise Woman Program</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women, Infants, and Children</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
RESULTS OF COMMUNITY PARTICIPATION

RESPONDENT ZIP CODES

The online survey results were received from residents in the following zip codes:

<table>
<thead>
<tr>
<th>15010</th>
<th>15126</th>
<th>15241</th>
<th>15376</th>
<th>26047</th>
<th>26074</th>
<th>43913</th>
<th>43935</th>
<th>43948</th>
</tr>
</thead>
<tbody>
<tr>
<td>15021</td>
<td>15205</td>
<td>15243</td>
<td>26003</td>
<td>26050</td>
<td>42953</td>
<td>43920</td>
<td>43938</td>
<td>43952</td>
</tr>
<tr>
<td>15043</td>
<td>15220</td>
<td>15301</td>
<td>26034</td>
<td>26056</td>
<td>43864</td>
<td>43926</td>
<td>43943</td>
<td>43953</td>
</tr>
<tr>
<td>15071</td>
<td>15234</td>
<td>15312</td>
<td>26035</td>
<td>26062</td>
<td>43906</td>
<td>43930</td>
<td>43944</td>
<td>43964</td>
</tr>
<tr>
<td>15108</td>
<td>15237</td>
<td>15317</td>
<td>26037</td>
<td>26070</td>
<td>43910</td>
<td>43932</td>
<td>43945</td>
<td>43968</td>
</tr>
</tbody>
</table>

AGE GROUPS

The survey targeted all age groups and requested that participants provide various demographic data. The ages of participants who responded were:

- 18-24 (2.61%)
- 25-40 (25.73%)
- 41-64 (62.21%)
- Over 65 (9.45%)

GENDER, MARITAL STATUS, AND RACE

The survey respondents indicated the following information with regard to their gender, marital status, and race:

- Gender: 16.29% were male and 83.71% were female.
- Marital Status: 16.61% - Single, 68.73% - Married, 10.42% - Divorced, 2.93% - Widowed, 0.98% Separated, and 0.33% - Civil Union
- Race: 95.44%-Caucasian, 1.30% - Hispanic, 2.61% - African American, and 0.65% - Other.
**HOUSEHOLD INCOME**

As shown in the chart below, the majority of respondents reported annual household income of less than $50,000.

![Income Chart]

**EDUCATION**

Respondents were asked: “What is the highest level of education you have completed?” Less than 19% of all respondents indicated an education level of high school graduate.

![Education Chart]
**EMPLOYMENT**

The survey asked the participants to provide their employment status. Nearly 80% of the respondents indicated they were working full time while 14% were working part time. The remaining participants were retired, disabled, or unemployed.

**INSURANCE COVERAGE**

Since the Affordable Care Act’s (ACA) coverage expansion began, about 16.4 million uninsured people nationwide have gained health insurance coverage. In 2014, the uninsured rate in West Virginia was 10.9%, down from 17.6% in 2013. Due to the new coverage options for young adults, employees may add or keep children on their insurance policy until they turn 26 years old. This has afforded coverage to over 2.3 million young adults nationwide that would have otherwise been uninsured. As part of the ACA, states were able to expand Medicaid coverage to individuals with family incomes at or below 133% of the federal poverty level. Due to this expansion, over 170,000 West Virginians and approximately 11.2 million individuals nationwide gained Medicaid or Children’s Health Insurance Program (CHIP) coverage.

Participants of the survey were asked to identify their insurance carrier, if any, as follows: 71% of the respondents indicated they have commercial insurance coverage, 5.9% indicated Medicare, 1.3% indicated Medicaid, 1.3% indicated they have no insurance, and the remaining 20.5% selected “Other” and entered a response. These responses included private insurance such as Blue Cross, Aetna, HMO-Health Plan, Cigna, VA, and the Hospital’s employee plan. 75% of those with Medicaid indicated that coverage was obtained as a result of the Medicaid Expansion.

**DENTAL CARE**

78.2% of respondents indicated they have received dental care in the past 12 months. The other 21.8% indicated various barriers that prevented them from seeing a dentist to include: 24.0% indicated cost, 11.6% stated lack of insurance, 1.8% indicated location and proximity, and 1.5% indicated the location not accepting new patients.
HEALTH ISSUES

Participants were asked to indicate for which conditions have they or someone in their household received treatment. The top three responses were diabetes/high blood pressure followed by high cholesterol and then depression/anxiety disorders. The least selected conditions were Long-term acute care services, bariatrics/obesity, and substance abuse.

<table>
<thead>
<tr>
<th>Condition</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes/High blood pressure</td>
<td>63.9</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>36.5</td>
</tr>
<tr>
<td>Depression/anxiety disorders</td>
<td>32.2</td>
</tr>
<tr>
<td>Joint, bone or muscle pain</td>
<td>26.5</td>
</tr>
<tr>
<td>Heart disease</td>
<td>20.0</td>
</tr>
<tr>
<td>Sleeping disorders</td>
<td>18.3</td>
</tr>
<tr>
<td>Neurology disorders</td>
<td>12.6</td>
</tr>
<tr>
<td>Behavioral/mental health</td>
<td>9.6</td>
</tr>
<tr>
<td>Cancer</td>
<td>5.7</td>
</tr>
<tr>
<td>Tobacco Abuse/Cessation</td>
<td>2.6</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>2.2</td>
</tr>
<tr>
<td>Bariatrics/obesity</td>
<td>2.2</td>
</tr>
<tr>
<td>Long term acute care</td>
<td>0.9</td>
</tr>
</tbody>
</table>

HOSPITAL SERVICES/SATISFACTION

Respondents were asked which services that they have used at Weirton Medical Center and to rate their level of satisfaction. The top five most utilized services were Radiology, Emergency Room, Laboratory/Diagnostic, Primary Care, and Obstetrics/Gynecology. Respondents who indicated they were satisfied with the services they received at Weirton Medical Center totaled 83.3%. The remaining 16.7% indicated either neutral or they were not satisfied. The top reasons for dissatisfaction include long wait times, communication concerns, and lengthy turnaround time for test results.
RESULTS OF COMMUNITY INTERVIEWS

Input was solicited in March 2016 from those representing the broad interests of the community. Discussions included the health needs of the community, barriers to health care access, opportunities for improvement, perception of the Hospital and feedback on its initiatives. The following organizations were selected to provide feedback.

Brooke County Health Department
Business Development Corp
Cognitive Medicine
Hancock County Board of Education
Hancock County Health Department
Jefferson Community Action Council
Northwood Healthcare
Salvation Army
Urban Mission
Washington City Mission
Weirton Chamber of Commerce
Weirton Geriatric Center
Weirton Medical Center
Weirton United Way
Wyngate Senior Living
Community Health Concerns

Most stakeholders believe that there are numerous major health related problems in the community. The most frequently identified health concerns in the community were chronic illnesses and lack of patient insurance. One respondent noted that the lower income, in particular, have issues with obtaining health insurance. Other major health related problems in the service area noted were mental health and drug addictions. Stakeholders feel that there is a genuine need for more behavioral health providers in the service area.

Quality and Access to Services

In general, transportation is an issue for many residents in the service area. While a public bus system is available, it does not include routes in the rural areas. Those living in poverty, as well as the elderly, can also face issues in finding transportation to doctors’ appointments and medical facilities. The city of Weirton has a public transportation system and many facilities can arrange for other forms of transportation for patients. However, many stakeholders interviewed still feel that the lack of easily obtainable transportation discourages people from seeking out medical care. Additionally, it was noted that the elderly population experiences a lack of easily accessible dialysis centers in the service area. There are, however, some specialties that those interviewed feel the service area could expand upon, such as radiation oncology, cardiology, dental care, and behavioral health services.

Perception of Weirton Medical Center

With regard to the perception of Weirton Medical Center, stakeholders indicated the overall perception as being positive and having improved in the last 3 to 4 years. The convenience of the Hospital offering comprehensive services makes quality care for most medical conditions available without traveling out of the service area. Most stakeholders felt that the addition of physicians was a huge benefit in serving the community overall. Also publicizing services to the community has benefited the perception of the Hospital; this is resulting in more positive feedback from the community. A general trend noted by several of those interviewed was that there was an overall improved spirit and morality at Weirton Medical Center.

Voice from the Community:

“Women’s Health has grown by leaps and bounds. They have fabulous doctors that have made a large space investment as well.”
Progress on Hospital Initiatives

Most stakeholders believe that there have been great strides from Weirton Medical Center in regards to initiatives. Many respondents noted that, specifically, oncology was non-existent previously and now it is leaps and bounds ahead, although radiation oncology would be an opportunity to expand services. The addition of new physicians for various services was a positive highlight for many respondents as well. The community wellness screenings were also praised as being well received, and that the cardiovascular program is offered on the weekends. There was also mention of a new affiliation with Allegheny Health Network with the oncology services that is viewed as positive. The Hospital has invested into the Women’s Health Program by having dedicated breast surgeons and a larger space. The addition of increased advertising has helped by supporting initiatives and as a communication of services offered to the community. Stakeholders felt it was important to continue to focus on the Hospital’s relationships with hospitals in Pittsburgh. Most stakeholders agreed emergency services provided by Weirton Medical Center are improved drastically and without major access problems.

Voice from the Community:
“Everyone deserves high marks for all of their efforts.”

Future Success of Weirton Medical Center

Discussions relating to the future of Weirton Medical Center were consistent among interviewees. All participants believed the Hospital was vital to the community and must continue to offer progressive services to residents. However, there have been great strides made in the efforts of service expansion and active communication and participation in the community. Some stakeholders also noted the need to renovate and expand the emergency department. Interviewees also noted a need for continued improvement in the outreach and education programs for the underprivileged, under insured, and older, low income citizens. Programs should focus on preventive services to avoid the non-emergent use of emergency department, as well as programming for tobacco and obesity. Interviewees noted a lack of quality substance abuse rehabilitation centers in the service area. Some stakeholders commented that the Hospital is in strong need of improvement with behavioral health services. One stakeholder also mentioned the need for a dermatologist at the Hospital as well.
SUMMARY OF FINDINGS

The goal of the needs assessment was to identify health issues and community needs as well as provide information to key decision makers to make a positive impact on the health of the Hospital’s service area. Statistical data was compiled to depict demographic and economic profiles while the surveys provided additional feedback with regard to community perception of the Hospital, availability of resources, and challenges as they relate to health care needs.

- The aging population will contribute to the highest growth in the 65 and over age category. An increase in the 65 and over age category contributes to an increase of Medicare beneficiaries with an increased need of services.
- All service area counties experienced an increase in the percentage of adults living in poverty. Many find themselves without insurance and seeking assistance from Medicaid or other programs or simply delay medical treatment.
- Brooke County had the highest percentage of low birthweight births within the service area.
- The highest percentage of births to mothers under the age of 18 was 3.9% in Jefferson County, Ohio.
- Hancock County, West Virginia reported the highest rate of tobacco use during pregnancy.
- Cigarette smoking was highest in Hancock County, West Virginia, at 23% with Brooke County at 22%.
- The health status indicator with the highest percentage within all service areas is adult obesity.
- Nearly 37.4% of those in Brooke County suffer from obesity and nearly 35.1% of those in West Virginia.

The results of the community health needs assessment quantitative and qualitative analysis, along with the input from members of the community, appears to indicate common themes in the health needs of the Weirton area and surrounding communities that should be the focus for further service development. These focus areas include the need for the following:

- Preventive care services
- Substance abuse rehabilitation facilities
- Additional community events focusing on health related issues
- General health education for the primary service area
- Adolescent, adult, and geriatric behavioral health services
- Transportation for the impoverished and elderly unable to drive
COMMUNITY HEALTH PRIORITIES

The goal of this assessment was to identify community health priorities and ways in which the Hospital may address those priorities. The results of the CHNA will enable the Hospital as well as other community providers to collaborate their efforts to provide the necessary resources for the community. After reviewing data sources providing demographic, population, socioeconomic, and health status information in addition to community feedback, health needs of the community were prioritized. The following community health issues were also identified in the prior CHNA of the Hospital. These issues have been selected again as the priority health issues to be addressed:

- Chronic Disease Management
- Unhealthy Lifestyles
- Drug and Alcohol Abuse

Chronic Disease Management

Priority conditions include obesity, diabetes, and heart disease. Obesity and unhealthy eating and activity habits give individuals a higher risk for liver and gallbladder disease, type 2 diabetes, high blood pressure, high cholesterol and triglycerides, coronary artery disease (CAD), stroke, sleep apnea and respiratory problems, osteoarthritis, and gynecological problems, among other conditions. Children who are obese are at risk for many of the same long-term health problems. If you have healthier habits or lose weight, your risk for these conditions is reduced.

Resources: The Hospital will continue to provide outreach and education to the residents of Weirton and the surrounding communities. The WMC Communications office administers many wellness initiatives each year. Nurses are available at wellness events throughout the area and doctors are primary speakers at many local civic and religious groups.

Unhealthy Lifestyles

Unhealthy lifestyle choices contribute to other health conditions. Smoking, poor nutrition, and physical inactivity are prevalent among residents in the service area. Tobacco is the leading cause of preventable illness and death in the United States. It causes many different cancers as well as chronic lung diseases, such as emphysema, bronchitis, and heart disease. Community culture, lack of health care coverage, and low income can lead to unhealthy lifestyle choices.

Resources: The Hospital will continue to provide outreach and education for smoking cessation, proper nutrition, and the importance of physical activity. The Hospital's staff of Registered Dieticians is available for those seeking a healthy lifestyle through diet and exercise.
Drug and Alcohol Abuse

Abuse of alcohol and illicit drugs is costly to our nation, exacting over $400 billion annually in costs. The toll that drug and alcohol problems have on individuals is significant, as they are at increased risk for serious health problems, criminal activity, automobile crashes, and lost productivity in the workplace. But individuals with drug and alcohol problems are not the only ones who suffer. The families, friends, and communities also suffer greatly. The abuse of alcohol and drugs leads to multiple acute and chronic adverse health outcomes, as well as a variety of negative consequences within the family unit, poor performance in school, or difficulties at work. Alcohol abuse leads to decreased inhibitions and impaired judgments that influence reckless and sometimes aggressive behavior. It also leads to high rates of motor vehicle accidents and injuries/deaths. On a chronic basis, it can lead to anemia, hepatitis and cirrhosis, pancreatitis, cognitive effects due to brain damage, fetal alcohol syndrome, low birthweight, and other poor health outcomes. Substance abuse problems commonly occur in conjunction with mental health issues.

Illicit drug use was a recurring issue of concern in many of our interviews with community members. The problems of substance abuse involve three levels of intervention - prevention, screening, and detection. These three opportunities require determined, collaborative action involving public health, education, health care, and criminal justice systems at the community level.

Resources: The Hospital will maintain its collaboration and referral network to address patients needs with regards to addiction and abuse. The Hospital will to continue to provide outreach and education to the residents of Weirton and the surrounding communities.

NEXT STEPS

With the completion of the Community Health Needs Assessment, Weirton Medical Center will establish an implementation plan which will use the Hospital's individual strengths and resources to best address their community's health needs and improve the overall health and wellbeing of residents of its service area.