



Roane General Hospital

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COMMUNITY HEALTH NEEDS ASSESSMENT



2013

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EXECUTIVE SUMMARY

The community health needs assessment of Roane County is the first step of an initiative to determine the health needs of the community. This will assist in developing programs that provide solutions to critical health care concerns found in the health care needs assessment.

Specific goals of the health care needs assessment was to identify:

1. *Health Care Issues of the Community:* The health care need assessment identified prevalent health care issues and gaps in the current health services delivery in this region
2. *Vulnerable Populations:* The health care need assessment identified persons with barriers to receiving health care services. Rural citizens are a vulnerable population in general due to the lack of specialty services and the required travel to meet many health care needs, and this region provides no exception. Children, seniors, and uninsured/underinsured citizens face the greatest barriers due to the lack of specific services that are available for these populations. If these populations are also of low income, this further compounds the barriers and subsequent access to health care.
3. *Disparities in the Health Care Services Delivery System:* Although many health care services are offered in the region, a number of factors influence access. For example, insurance status, income, and provider and community awareness all affect the ability to access care.
4. *Health Care Resources in the Community:* An assessment of health care services was completed in order to gain an understanding of the availability of health care services in the country. The assessment of the health care services was compiled through general data collection.
5. *Next Steps (Strategic Planning):* The community health needs assessment is a crucial step in future strategic planning. Setting priorities cannot be accomplished without gaining an understanding of the community's health care needs and concerns. Addressing the health care service issues identified during the assessment is the next step in the process.

Health care issues revealed through analysis of secondary databases:

- Level of Poverty in the Region – There is a high percentage of the population in poverty. In addition, over 40% of children live in poverty.
- Vulnerable Populations – Data revealed that children, seniors, and low/no education residents face barriers accessing health care, especially if these groups are living in poverty.
- Cancer Incidence – There is a high incidence of breast, colorectal, lung, prostate cancers in the population. Cancer mortality is higher in Roane County than in the US.
- Disease Incidence – The rate of obesity, heart disease, stroke, diabetes, etc. is higher than that of the national rate.

The local health care services inventory revealed:

- A shortage of providers for acute care mental health treatment
- A shortage of inpatient and residential treatment programs for drug and alcohol treatment in both Roane County and West Virginia
- Limited non-emergent transportation options

The following gaps in health services were identified as priorities for Roane General Hospital to address in future planning efforts.

- Substance abuse and detoxification treatment and education
- Mental health services
- Weight management options and education
- Non-emergent medical transportation
- Recruitment of health care providers for primary and specialty care
- Community education and outreach

Action Steps for improvement of the previously stated health service issues

- Community outreach and education about health services
 - Existing non-emergent transportation options
 - Existing mental health services
- Recruitment of full-time primary care provider for Roane General Medical Clinic
- Expand primary care services through Rural Health Clinic at Walton School-Based Clinic location (opened 06/03/2013)
- Continued and additional partnerships with specialty care providers
 - Explore Telemedicine opportunities
 - Explore outpatient chemotherapy services
 - Explore kidney dialysis services
 - Explore weight management services
 - Explore substance abuse/detoxification services

INTRODUCTION

The community health needs assessment of Roane County is the first step of an initiative to determine the health needs of the community. This will assist in developing programs that provide solutions to critical health care concerns found in the health care needs assessment.

Specific goals of the health care needs assessment was to identify:

1. Health Care Issues of the Community
2. Vulnerable Populations
3. Disparities in the Health Care Services Delivery System
4. Health Care Resources in the Community
5. Next Steps (Strategic Planning)

Strategies used to conduct the health needs assessment

- Collected and analyzed secondary data sources such as US Census data, state health statistics, and behavioral risk assessments
- Created a comprehensive community health services inventory
- Conducted primary data collection through surveys of key informants and the general population

Findings from the health care needs assessment are presented in this report and organized in the following manner:

1. *Presentation of Secondary Data* – These data describe the characteristics of the population living in the study region (Roane County)
2. *Presentation of Primary Data* – Primary data was obtained through a key informant survey and a population survey. This data provided the population’s perspective of current health issues and the communities’ response to these issues as well as identifying barriers to accessing health care in the community.
3. *Presentation of Findings and Analysis* – Based on research and analysis, gaps in the current health system were identified.
4. *Next Steps* – The findings of the study were used to determine priorities during the strategic planning process for community improvement.

SECONDARY DATA ANALYSIS

Secondary data was collected to assess the effect of the population profile on health care services utilization and to assist in planning for future needs of the community. Secondary data is defined as data previously collected for other purposes or general information. This section describes the characteristics of the population and provides an inventory of the health services that are currently available in the community.

The secondary data section is comprised of:

- Demographics
- Social & Economic Factors
- Physical Environment
- Clinical Care
- Health Behaviors
- Health Outcomes
- Roane County – An Overview
- Community Health Services Inventory

This data in this section was compiled via the Community Health Needs Assessment website (<http://assessment.communitycommons.org/CHNA/>). This site provides a portal with the ability to see a selected area's demographics and performance on a core set of community indicators linked to evidence-informed interventions. The default is to the "core outcome and action indicators framework" associated with The County Health Rankings/Roadmaps to Health, The Community Guide, Healthy People 2020, and other widely used sources of indicators and evidence-informed program activities. The framework is also derived from the shared national priorities identified in the National Prevention Strategy, The Community Transformation Grant Program, and the Leading Health Indicators for Healthy People 2020.

Demographics Summary

Current population demographics and changes in demographic composition over time play a determining role in the types of health and social services needed by communities.

The total population in Roane County is 15,116 within a total land area of 483.56 square miles; the population density of the area is 31.26 (per square mile). The population is 50.45% female, which is comparable with state and national data. The total population decreased by 3.37% from the 2000 to the 2010 US Census.

Roane County shows little ethnic diversity with a population that is 94.34% white; this ethnic diversity rate is very similar to the rate for West Virginia.

The median age of individuals residing in Roane County is 42.80, which is higher than that of the state (41.10) and the US (36.90). In addition, approximately one-half of the population in Roane County is between the ages of above the age of 45, with approximately one-third of the population between 45-64 years old. This is especially critical to note since the 45-64 years old group will be reaching retirement age within the next 20 years.

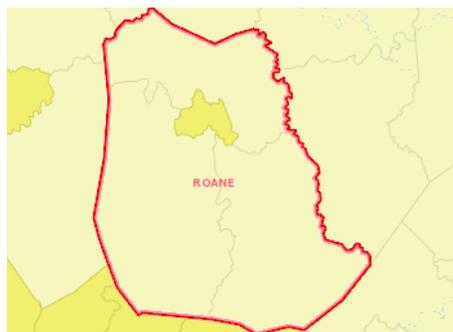
Roane County's linguistic isolated population is very small at 0.60%. This percent comparable with the state percent (0.72%) but is significantly less than the national percentage (8.70%).

Total Population

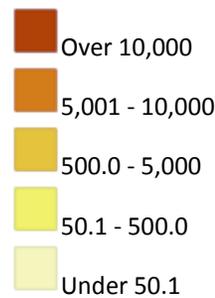
This indicator reports the total number of people in a specific geographic area. This indicator is relevant because population counts are necessary to quantify the community as defined.

Report Area	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Roane County, West Virginia	15,116	483.56	31.26
West Virginia	1,840,802	24,038.20	76.58
United States	303,965,271	3,531,905.50	86.06

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates.



Population Density (Per Sq. Mi.), By Tract, U.S. Census 2010

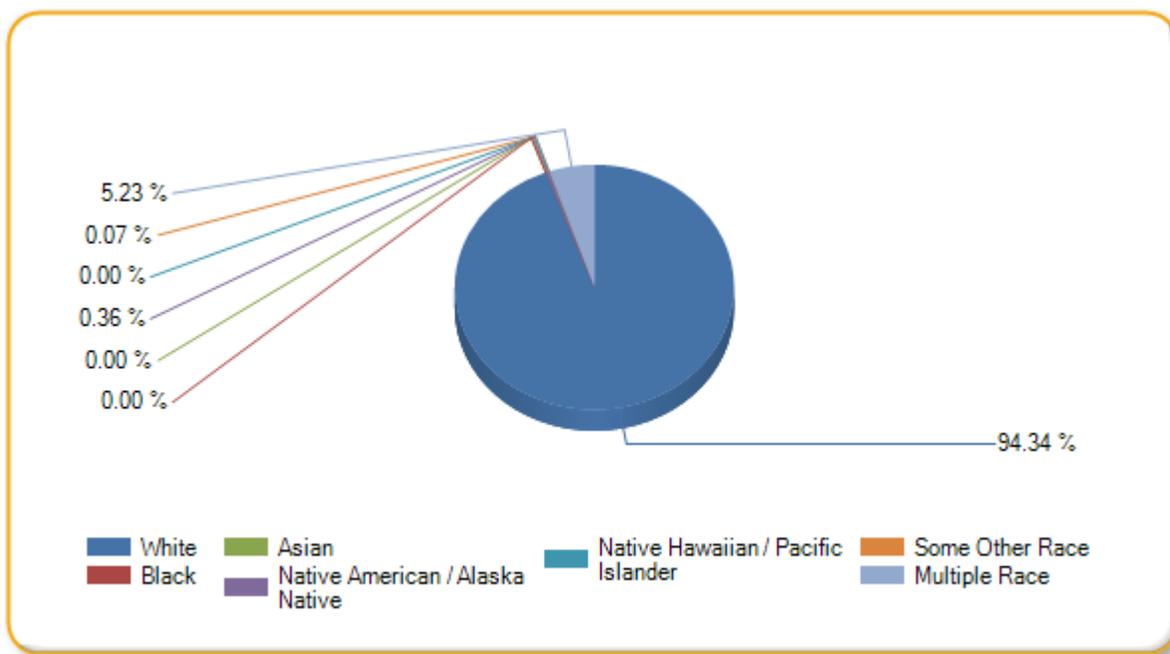


Total Population, by Gender

Report Area	Male	Female	Percent Male	Percent Female
Roane County, West Virginia	7,490	7,626	49.55%	50.45%
West Virginia	904,625	936,177	49.14%	50.86%
United States	149,398,720	154,566,544	49.15%	50.85%

Total Population, Percent by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Roane County, West Virginia	94.34%	0%	0%	0.36%	0%	0.07%	5.23%
West Virginia	94.23%	3.20%	0.62%	0.17%	0.03%	0.22%	1.52%
United States	73.99%	12.49%	4.67%	0.82%	0.16%	5.46%	2.41%



Change in Total Population

This indicator reports the percent difference in population counts from the 2000 Census population estimate to the 2010 Census population estimate. This indicator is relevant because a positive or negative shift in total population over time influences health care providers and the utilization of community resources.

Report Area	Total Population, 2010 Census	Total Population, 2000 Census	Percent Change from 2000-2010 Census
Roane County, West Virginia	14,926	15,446	-3.37%
West Virginia	1,852,994	1,808,344	2.47%
United States	308,745,538	281,421,906	9.71%

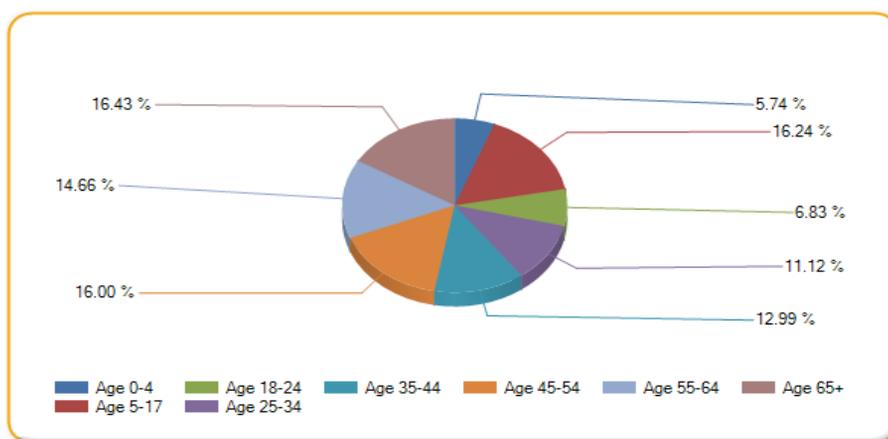
Data Source: U.S. Census Bureau, 2000 Census of Population and Housing, Summary File 1; U.S. Census Bureau, 2010 Census of Population and Housing, Summary File 1. Source geography: County.

Total Population, by Age Groups

Report Area	Age 0-4	Age 5-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65
Roane County, West Virginia	867	2,455	1,032	1,681	1,963	2,418	2,216	2,484
West Virginia	103,758	285,712	168,711	219,742	242,934	278,952	249,831	291,162
United States	20,131,420	53,901,696	30,205,496	40,191,012	42,206,140	44,302,696	34,277,392	38,749,416

Total Population, Percent by Age Groups

Report Area	Age 0-4	Age 5-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65
Roane County, West Virginia	5.74%	16.24%	6.83%	11.12%	12.99%	16.00%	14.66%	16.43%
West Virginia	5.64%	15.52%	9.17%	11.94%	13.20%	15.15%	13.57%	15.82%
United States	6.62%	17.73%	9.94%	13.22%	13.89%	14.57%	11.28%	12.75%



Median Age

This indicator reports the median age according to the 2010 Census population estimate. This indicator is relevant because the age demographics of a population indicate the potential for age-specific conditions and a demand for related services.

Report Area	Total Population	Median Age
Roane County, West Virginia	15,116	42.80
West Virginia	1,840,802	41.10
United States	303,965,280	36.90

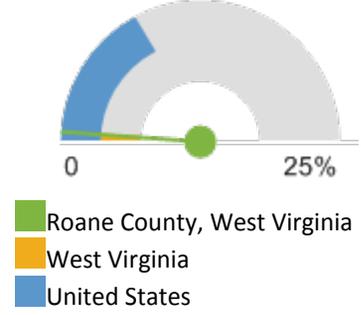
Data Source: [U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates](#). Source geography: Tract.

Linguistically Isolated Population

This indicator reports the percentage of the population aged five and older who speak a language other than English at home and speak English less than "very well." This indicator is relevant because an inability to speak English well creates barriers to health care access, provider communications, and health literacy/education.

Report Area	Total Population (For Whom Linguistic Isolation is Determined)	Total Linguistically Isolated Population	Percent Linguistically Isolated Population
Roane County, West Virginia	14,249	86	0.60%
West Virginia	1,737,044	12,488	0.72%
United States	283,833,856	24,704,752	8.70%

Percent Linguistically Isolated Population



Note: This indicator is compared with the state average.

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates.

Source geography: Tract.

Social & Economic Factors Summary

Economic and social insecurity often are associated with poor health. Poverty, unemployment, and lack of educational achievement affect access to care and a community's ability to engage in healthy behaviors. Without a network of support and a safe community, families cannot thrive. Ensuring access to social and economic resources provides a foundation for a healthy community.

The on-time graduation rate for Roane County is comparable with the rate of West Virginia while below the national rate. However, the percent of the population with no high school diploma is higher (23.41%) than the state and national averages (18.09% and 14.97%, respectively). This is especially relevant since low levels of education are often linked to poverty and poor health.

The unemployment rate in Roane County is 9.47, which is significantly higher than the state rate (6.80) and the national rate (7.60). High unemployment rates can indicate financial instability in the community and increase the amount of individuals in poverty while decreasing the amount of people with access to insurance coverage, health services, health services, and healthy food.

Poverty is considered a key driver of health status of a community. The percent of Roane County's population that are in poverty (less than 100% FPL), 27.61%, is much higher than that of WV (17.35%) and the US (13.82%) percentages. In addition, the percent of the population whose income is below 200% of the Federal Poverty Level (FPL) is 50.08%, compared to that of the state (39.09%) and national (31.98%) levels. This rate may be affected by the level of education and high unemployment rate in the community.

The percentage of children (0-17 years of age) living under 100% of the FPL in Roane County is 41.50%, which is almost double the percent of children in West Virginia and the nation. This is also reflected in the percent of Roane County public school students who are eligible for free or reduced price lunches (56.53%). The percent of Roane County's population that is receiving Supplemental Nutrition Assistance Program (SNAP) benefits (formerly the food stamp program) is 25.07%; Roane County's percentage is higher than both the state (18.35%) and national (12.60%) level.

The percentage of Roane County's population that self-reports adequate social or emotional support is 79.62%, which is comparable to the WV and US level. This indicator reflects the support that is critical for navigating the challenges of daily life as well as a stable mental health.

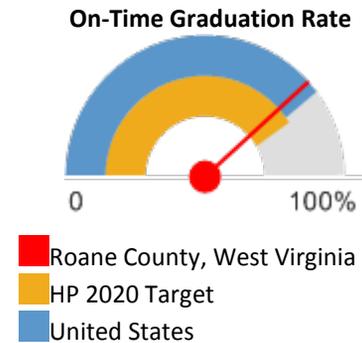
The teen birth rate in Roane County is 45.70, which is less than the state rate (46.20) but higher than the national rate (41.20). High rates of teen pregnancy may indicate the prevalence of unsafe sex practices. This particular population, teen mothers (aged 15-19), in many cases have unique social, economic, and health support services.

High School Graduation Rate

This indicator reports the average freshman graduate rate, which measures the percentage of students receiving their high school diploma within four years. This indicator is relevant because low levels of education are often linked to poverty and poor health.

Report Area	Base Enrollment (4-Year Avg. 9th Grade Enrollment)	Avg. Number of On-Time Graduates	On-Time Graduation Rate
Roane County, West Virginia	200	153	76.80
West Virginia	22,983	17,690	77.00
United States	4,024,345	3,039,015	75.50
HP 2020 Target			>82.4

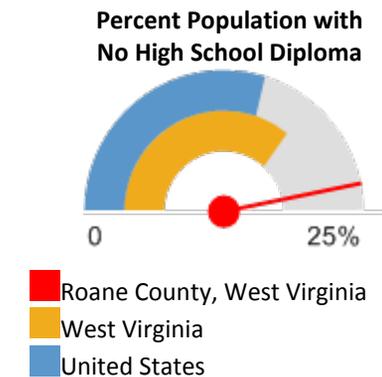
Note: This indicator is compared with the Healthy People 2020 Target. No breakout data available. Data Source: The University of Wisconsin, Population Health Institute, County Health Rankings, 2012 and the U.S. Department of Education, National Center for Education Statistics (NCES), Common Core of Data, Public School Universe Survey Data, 2005-2006, 2006-2007, 2007-2008. Source geography: County



Population with No High School Diploma

Educational attainment is considered a *key driver* of health status. This indicator reports the percentage of the population aged 25 and older without a high school diploma (or equivalency) or higher. This indicator is relevant because low levels of education are often linked to poverty and poor health.

Report Area	Total Population (For Whom Educational Attainment is Determined)	Population with No High School Diploma	Percent Population with No High School Diploma
Roane County, West Virginia	10,762	2,519	23.41%
West Virginia	1,282,621	232,001	18.09%
United States	199,726,656	29,898,482	14.97%



Note: This indicator is compared with the state average. Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. Source geography: Tract.

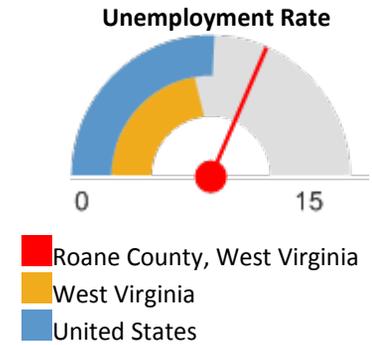
Unemployment Rate

This indicator reports the percentage of the civilian non-institutionalized population age 16 and older that is unemployed (non-seasonally adjusted). This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

Report Area	Total Labor Force	Number Unemployed	Unemployment Rate
Roane County, West Virginia	5,194	513	9.88
West Virginia	794,208	53,132	6.70
United States	156,222,086	11,571,471	7.40

Note: This indicator is compared with the state average.

Data Source: U.S. Bureau of Labor Statistics, July, 2012 Local Area Unemployment Statistics. Source geography: County.



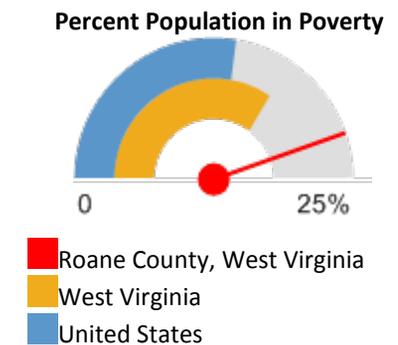
Poverty Rate (< 100% FPL)

Poverty is considered a *key driver* of health status. This indicator reports the percentage of the population living below 100% of the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

Report Area	Total Population (For Whom Poverty Status is Determined)	Total Population in Poverty	Percent Population in Poverty
Roane County, West Virginia	14,834	4,095	27.61%
West Virginia	1,789,092	310,495	17.35%
United States	296,141,152	40,917,512	13.82%

Note: This indicator is compared with the state average.

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. Source geography: Tract.

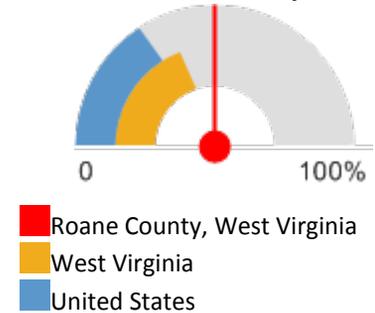


Population Below 200% of Poverty Level

This indicator reports the percentage of the population living under 200% of the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

Report Area	Total Population (For Whom Poverty Status is Determined)	Population with Income Below 200% Poverty Level	Percent Population with Income Below 200% Poverty Level
Roane County, West Virginia	14,834	7,429	50.08%
West Virginia	1,789,092	699,286	39.09%
United States	296,141,152	94,693,416	31.98%

Percent Population with Income Below 200% Poverty Level



Note: This indicator is compared with the state average.

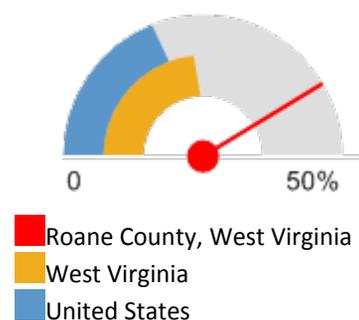
Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. Source geography: Tract.

Children in Poverty

This indicator reports the percentage of children aged 0-17 living under 100% of the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

Report Area	Total Population (For Whom Poverty Status is Determined)	Children in Poverty	Percent Children in Poverty
Roane County, West Virginia	3,113	1,292	41.50%
West Virginia	380,336	90,492	23.79%
United States	72,850,296	13,980,497	19.19%

Percent Children in Poverty



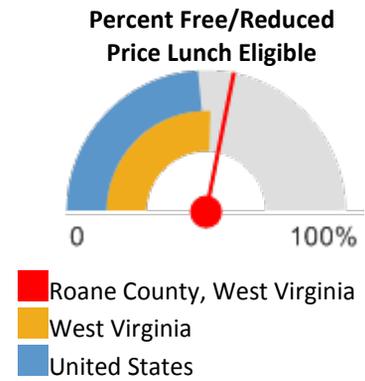
Note: This indicator is compared with the state average.

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. Source geography: Tract.

Free and Reduced Price School Lunch Eligibility

This indicator reports the percentage of public school students eligible for free or reduced price lunches. This indicator is relevant because it assesses vulnerable populations, which are more likely to have multiple health access, health status, and social support needs. Additionally, when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Report Area	Total Student Enrollment	Number Free/Reduced Price Lunch Eligible	Percent Free/Reduced Price Lunch Eligible
Roane County, West Virginia	2,505	1,416	56.53%
West Virginia	282,862	145,605	51.48%
United States	49,692,766	24,021,069	48.34%



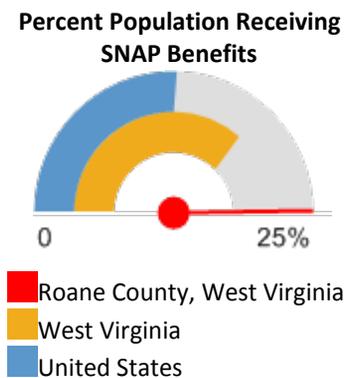
Note: This indicator is compared with the state average.

Data Source: U.S. Department of Education, National Center for Education Statistics (NCES), Common Core of Data, Public School Universe File, 2010-2011. Source geography: Address.

Supplemental Nutrition Assistance Program (SNAP) Recipients

This indicator reports the average percentage of the population receiving the Supplemental Nutrition Assistance Program (SNAP) benefits from the months of July 2008 to July 2009. This indicator is relevant because it assesses vulnerable populations, which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Report Area	Total Estimated Population, 2009	Total Population Receiving SNAP Benefits	Percent Population Receiving SNAP Benefits
Roane County, West Virginia	14,870	3,728	25.07%
West Virginia	1,819,777	333,894	18.35%
United States	307,006,550	38,701,176	12.60%



Note: This indicator is compared with the state average.

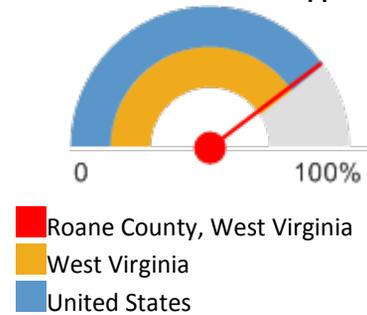
Data Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2009. Source geography: County.

Adequate Social or Emotional Support

This indicator reports the percentage of adults aged 18 and older who self-report receiving sufficient social and emotional support all of most of the time. This indicator is relevant because social and emotional support is critical for navigating the challenges of daily life as well as for good mental health. Social and emotional support is also linked to educational achievement and economic stability.

Report Area	Population (Age 18)	Adults Reporting Adequate Social or Emotional Support	Percent Adults Reporting Adequate Social or Emotional Support
Roane County, West Virginia	314	250	79.62%
West Virginia	30,310	24,551	81.00%
United States	2,744,636	2,204,749	80.33%

Percent Adults Reporting Adequate Social or Emotional Support



Note: This indicator is compared with the state average.

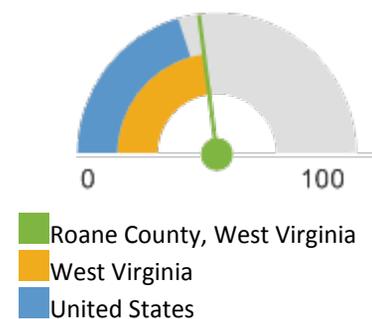
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.

Teen Births

This indicator reports the rate of total births to women under the age of 15 - 19 per 1,000 female population. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.

Report Area	Female Population Age 15 - 19	Births to Mothers Age 15 - 19	Teen Birth Rate (Per 1,000 Births)
Roane County, West Virginia	3,282	150	45.70
West Virginia	397,944	18,385	46.20
United States	72,071,117	2,969,330	41.20

Teen Birth Rate (Per 1,000 Births)



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, National Vital Statistics Systems, 2003-2009. Accessed through the Health Indicators Warehouse. Source geography: County.

Physical Environment Summary

A community's health also is affected by the physical environment. A safe, clean environment that provides access to healthy food and recreational opportunities is important to maintaining and improving community health.

A substantial amount of Roane County's population lives in a food desert (26.84%) as compared to the state (8.82%) and national (9.10%) percentages. This indicates that a large portion of the population may be facing food insecurities due to limited access to a supermarket or large grocery store. This data seems to contradict the information regarding grocery store access (Roane County: 40.20; West Virginia: 20.67; US: 21.83). However, the six establishments that represent this data are located centrally in the county, therefore creating a food desert in the southeastern areas of the county.

There are only three locations in Roane County that are authorized to accept WIC program (special supplemental nutrition program for women, infants, and children) benefits. Roane County's rate (20.10) is slightly higher than WV (18.80) and even more so than the US rate (15.60). This gives special insight into a vulnerable population's access to healthy foods.

Roane County has a lower proportion of fast food restaurants than West Virginia and the US (40.20, 69.08, and 69.26, respectively). Yet again, as with the issue of grocery store access, these restaurants are centrally located in the county, not in the outlying community.

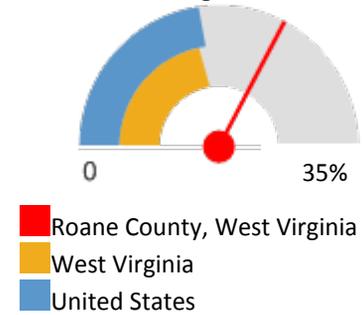
The last aspect of physical environment to discuss is the access to recreation and fitness facilities in the community; access to a facility may encourage physical activity and other health behaviors among the population. There is only one establishment that is designated as a recreation and fitness facility in Roane County (rate: 6.70). This rate is not much lower than the state (8.65) and national (9.99) rates.

Population Living in Food Deserts

This indicator reports the percentage of the population living in census tracts designated as food deserts. A food desert is defined as a low-income census tract (where a substantial number or share of residents has low access to a supermarket or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity.

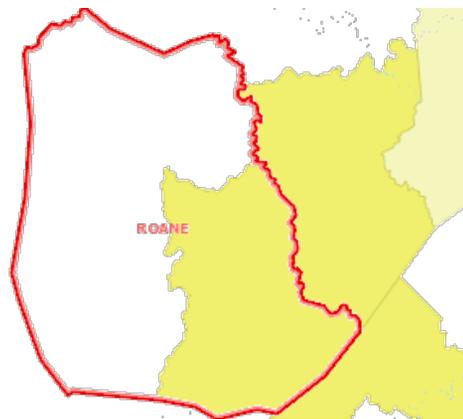
Report Area	Total Population	Population Living in a Food Deserts	Percent Living in Food Deserts
Roane County, West Virginia	15,446	4,145	26.84%
West Virginia	1,808,344	159,463	8.82%
United States	281,421,906	25,609,433	9.10%

Percent Living in Food Deserts

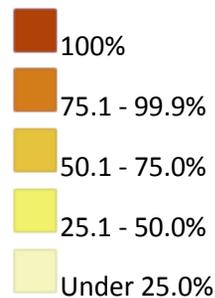


Note: This indicator is compared with the state average.

Data Source: U.S. Department of Agriculture, Food Desert Locator, 2009. Source geography: Tract (2000).



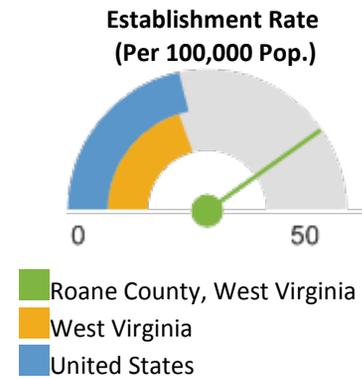
Percentage of Population with Low Food Access, by Tract, USDA 2006



Grocery Store Access

This indicator reports the number of grocery stores per 100,000 population. Grocery stores are defined as supermarkets and smaller grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry. Included are delicatessen-type establishments. Convenience stores and large general merchandise stores that retail food, such as supercenters and warehouse club stores are excluded. This indicator is relevant because it provides a measure of healthy food access and environmental influences on dietary behaviors.

Report Area	Total Population, 2010 Census	Number of Establishments	Establishment Rate (Per 100,000 Pop.)
Roane County, West Virginia	14,926	6	40.20
West Virginia	1,852,994	383	20.67
United States	308,495,938	67,357	21.83

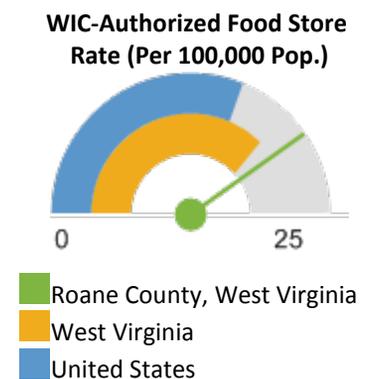


Note: This indicator is compared with the state average. No breakout data available. Data Source: U.S. Census Bureau, County Business Patterns, 2010. Source geography: County.

WIC-Authorized Food Store Access

This indicator reports the number of food stores and other retail establishments per 100,000 population that are authorized to accept WIC Program (Special Supplemental Nutrition Program for Women, Infants, and Children) benefits and that carry designated WIC foods and food categories. This indicator is relevant because it provides a measure of food security and healthy food access for women and children in poverty as well as environmental influences on dietary behaviors.

Report Area	Total Population (2011 Estimate)	Number WIC-Authorized Food Stores	WIC-Authorized Food Store Rate (Per 100,000 Pop.)
Roane County, West Virginia	14,858	3	20.10
West Virginia	1,871,890	352	18.80
United States	318,921,538	50,042	15.60



Note: This indicator is compared with the state average. Data Source: U.S. Department of Agriculture, Food Environment Atlas, 2012. Source geography: County.

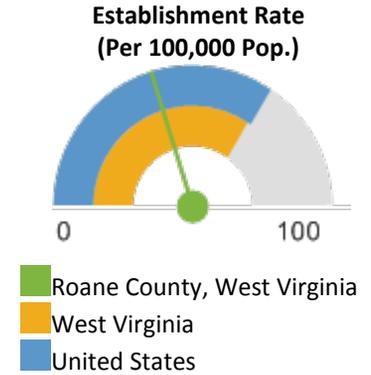
Fast Food Restaurant Access

This indicator reports the number of fast food restaurants per 100,000 population. Fast food restaurants are defined as limited-service establishments primarily engaged in providing food services (except snack and nonalcoholic beverage bars) where patrons generally order or select items and pay before eating. This indicator is relevant because it provides a measure of healthy food access and environmental influences on dietary behaviors.

Report Area	Total Population, 2010 Census	Number of Establishments	Establishment Rate (Per 100,000 Pop.)
Roane County, West Virginia	14,926	6	40.20
West Virginia	1,831,290	1,265	69.08
United States	308,203,027	213,469	69.26

Note: This indicator is compared with the state average.

Data Source: U.S. Census Bureau, County Business Patterns, 2010. Source geography: County.



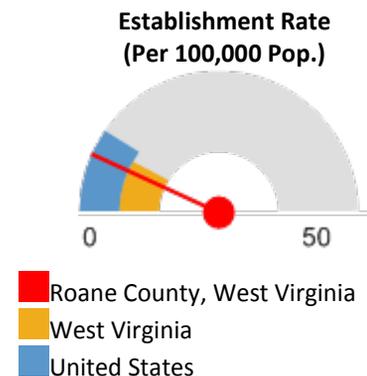
Recreation and Fitness Facility Access

This indicator reports the number per 100,000 population of recreation and fitness facilities as defined by North American Industry Classification System (NAICS) Code 713940. This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

Report Area	Total Population, 2010 Census	Number of Establishments	Establishment Rate (Per 100,000 Pop.)
Roane County, West Virginia	14,926	1	6.70
West Virginia	1,595,959	138	8.65
United States	299,481,280	29,913	9.99

Note: This indicator is compared with the state average. No breakout data available.

Data Source: U.S. Census Bureau, County Business Patterns, 2010. Source geography: County.



Clinical Care Summary

A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsured, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access. Rates of morbidity, mortality, and emergency hospitalizations can be reduced if community residents access services such as health screenings, routine tests, and vaccinations. Prevention indicators can call attention to a lack of access or knowledge regarding one or more health issues and can inform program interventions.

Roane County has areas that have been designated as Health Professional Shortage Areas (HSPA). Roane County has 38.08% of the population living in an HSPA designated area compared to that of WV (49.02%) and the US (60.80%). Roane County also has one Federally Qualified Health Center (FQHC) serving the community. FQHCs receive extra federal funding to promote access to ambulatory care in areas designated as medically underserved.

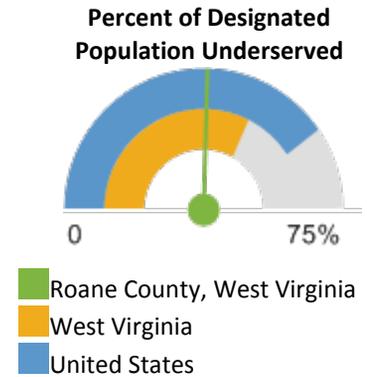
The rate of access to primary care in in Roane County (40.10) is approximately half that of the state (87.80) and national (84.70) rates. The percentage of adults who self-reported that they did not have a least one person who they think of as their personal doctor or health care provider in Roane County is 31.26% (WV: 21.88%; US: 19.32%). This is an important factor since regular primary care is vital to disease/injury prevention. The rate of preventable hospital events [admissions that could have been prevented if adequate primary care resources were available and accessed by patients] for Roane County was 105.38 (per 1000 Medicare Enrollees) which is lower than WV's rate (112.36) but higher than the national rate (76.14).

The following self-reported behaviors (Colon Cancer Screening; Diabetes Management; High Blood Pressure Management; and HIV Screenings) can highlight a lack of access to preventative care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services. The percent of adult men (>50 years) screened for colon cancer via a sigmoidoscopy or colonoscopy is 34.61% in Roane County, 41.18% in WV, and 51.79% nationwide. The percent of diabetic Medicare patients who have had a hemoglobin A1c test in the past year is 86.59% in Roane County, 80.163% in WV, and 80.31% nationwide. The percent of adults in Roane County (18+ years) that are not taking medication for their high blood pressure is 15.37% (WV: 16.54%, US: 21.74%). The percent of teens and adults (age 12-70) who have never been screened for HIV in Roane County is 66.20%; the percent for WV and the US are 68.16% and 59.83%, respectively.

Population Living in a Health Professional Shortage Areas (HPSA)

This indicator reports the percentage of the population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA), defined as having a shortage of primary medical care, dental or mental health professionals. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Report Area	Total Population, 2010 Census	HPSA Designation Population	Underserved Population	Percent of Designated Population Underserved
Roane County, West Virginia	14,926	7,427.99	2,828.62	38.08%
West Virginia	1,852,994	246,772.58	120,957.02	49.02%
United States	312,676,557	52,826,822.65	32,117,352.05	60.80%



Note: This indicator is compared with the state average.

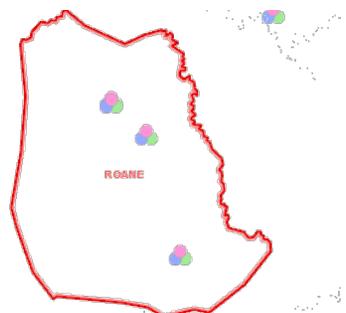
Data Source: U.S. Health Resources and Services Administration, Health Professional Shortage Area File, 2012. Source geography: HPSA.

Facilities Designated as Health Professional Shortage Areas (HPSA)

This indicator reports the number and location of health care facilities designated as "Health Professional Shortage Areas" (HPSAs), defined as having shortages of primary medical care, dental or mental health providers. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Report Area	Total Facilities	Primary Care Facilities	Mental Health Care Facilities	Dental Care Facilities
Roane County, West Virginia	12	4	4	4
West Virginia	193	68	69	56
United States	8,198	3,137	2,601	2,460

Data Source: U.S. Health Resources and Services Administration, Health Professional Shortage Area File, 2012. Source geography: Address.



Health Professional Shortage Area Facilities, by Type, HPSA, Nov. 2012

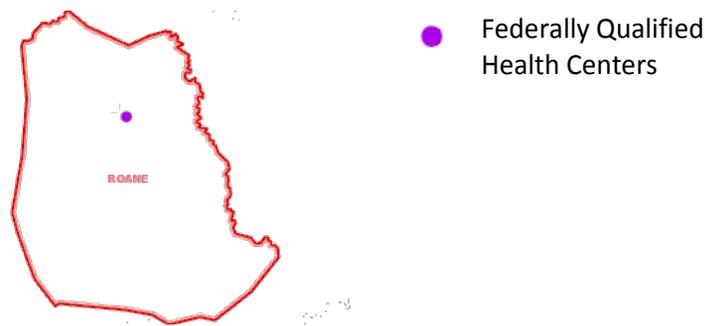
- Primary Care
- Dental Care
- Mental Health

Federally Qualified Health Centers

This indicator reports the number of Federally Qualified Health Centers (FQHCs) in the community. This indicator is relevant because FQHCs are community assets that provide health care to vulnerable populations; they receive extra funding from the federal government to promote access to ambulatory care in areas designated as medically underserved.

Report Area	Number of Federally Qualified Health Centers
Roane County, West Virginia	1
West Virginia	168
United States	5,459

Data Source: *U.S. Health Resources and Services Administration, Centers for Medicare & Medicaid Services, Provider of Service File, 2011.* Source geography: Address.



Access to Primary Care

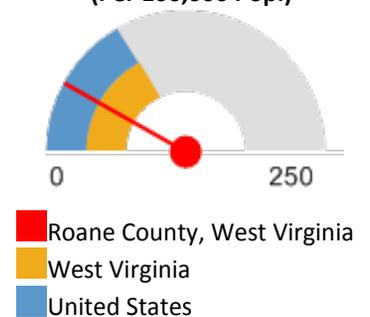
This indicator reports the number of primary care physicians per 100,000 population. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Report Area	Total Population	Total Primary Care Providers	Primary Care Provider Rate (Per 100,000 Pop.)
Roane County, West Virginia	14,926	6	40.10
West Virginia	1,852,994	1,627	87.80
United States	312,471,327	264,897	84.70

Note: This indicator is compared with the state average.

Data Source: *U.S. Health Resources and Services Administration Area Resource File, 2011.* Source geography: County.

Primary Care Provider Rate (Per 100,000 Pop.)

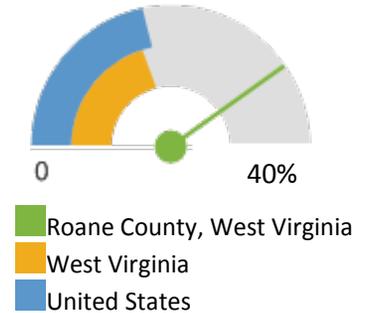


Lack of a Consistent Source of Primary Care

This indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider. This indicator is relevant because access to regular primary care is important to preventing major health issues and emergency department visits.

Report Area	Total Population (Age 18)	Number Adults Without Any Regular Doctor	Percent Adults Without Any Regular Doctor
Roane County, West Virginia	11,794	3,686.80	31.26%
West Virginia	1,451,332	317,551	21.88%
United States	232,747,222	44,961,851.44	19.32%

Percent Adults Without Any Regular Doctor



Note: This indicator is compared with the state average.

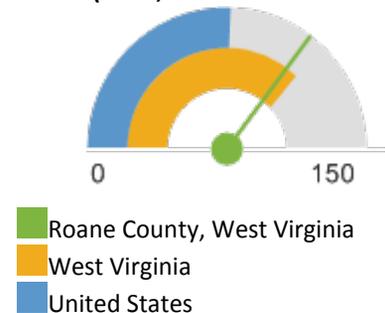
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.

Preventable Hospital Events

This indicator reports the discharge rate (per 1,000 hospital admissions) for conditions that are ambulatory care sensitive (those admissions that could have been prevented if adequate primary care resources were available and accessed by those patients). This indicator is relevant because analysis of ACS discharges allows demonstrating a possible “return on investment” from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources.

Report Area	Total Medicare Enrollees (Age 65-75)	Preventable Hospital Admissions (ACSCs)	Preventable Hospital Admission (ACSC) Rate (Per 1,000 Medicare Enrollees)
Roane County, West Virginia	1,822	192	105.38
West Virginia	227,706	25,585	112.36
United States	53,239,865	4,053,740	76.14

Preventable Hospital Admission (ACSC) Rate (Per 1,000 Medicare Enrollees)



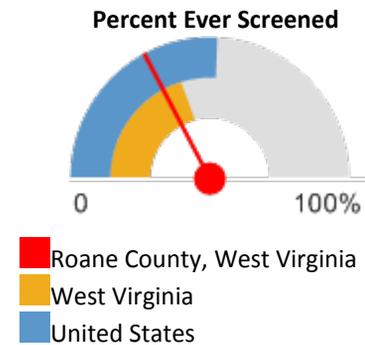
Note: This indicator is compared with the state average.

Data Source: Dartmouth Atlas of Health care, Selected Measures of Primary Care Access and Quality, 2003-2007. Source geography: County.

Colon Cancer Screening (Sigmoid/Colonoscopy)

This indicator reports the percentage of adult men aged 50 and older who self-report that they have ever had a sigmoidoscopy or colonoscopy. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population (Men Aged 50)	Number Ever Screened	Percent Ever Screened
Roane County, West Virginia	2,742	949	34.61%
West Virginia	355,272	146,301	41.18%
United States	119,567,203	61,919,221	51.79%



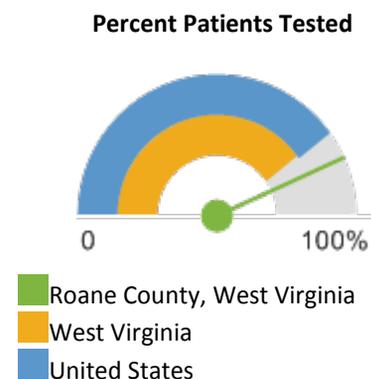
Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010. Source geography: County.

Diabetes Management (Hemoglobin A1c Test)

This indicator reports the percentage of diabetic Medicare patients who have had a hemoglobin A1c (hA1c) test, a blood test that measures blood sugar levels, administered by a health care professional in the past year. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Medicare Enrollees (Age 65-75) with Diabetes	Number Patients Tested	Percent Patients Tested
Roane County, West Virginia	246	213	86.59%
West Virginia	28,626	22,939	80.13%
United States	5,408,188	4,343,573	80.31%



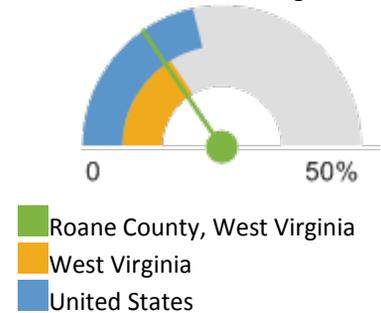
Note: This indicator is compared with the state average. No breakout data available. Data Source: Dartmouth Atlas of Health care, Selected Measures of Primary Care Access and Quality, 2003-2007. Source geography: County.

High Blood Pressure Management

This indicator reports the percentage of adults aged 18 and older who self-report that they are not taking medication for their high blood pressure. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, this indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population (Age 18)	Number Adults Not Taking Blood Pressure Medication (When Needed)	Percent Adults Not Taking Medication
Roane County, West Virginia	11,794	1,812.74	15.37%
West Virginia	1,451,332	240,050	16.54%
United States	232,747,222	50,606,335.52	21.74%

Percent Adults Not Taking Medication



Note: This indicator is compared with the state average.

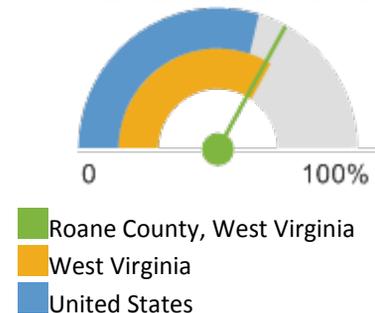
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.

HIV Screenings

This indicator reports the percentage of teens and adults age 12-70 who self-report that they have never been screened for HIV. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population (Age 18)	Number Adults Never Screened	Percent Adults Never Screened
Roane County, West Virginia	11,794	7,807.63	66.20%
West Virginia	1,451,332	989,228	68.16%
United States	232,747,222	139,253,113.51	59.83%

Percent Adults Never Screened



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.

Health Behaviors Summary

Health behaviors such as poor diet, a lack of exercise, and substance abuse contribute to poor health status.

The three indicators being evaluated in this section are inadequate fruit/vegetable consumption (adults), physical inactivity (adult), and tobacco usage (adult). These indicators reflect current behaviors in the population are determinants of future health. In each of the indicators, Roane County fairs worse than West Virginia and the US.

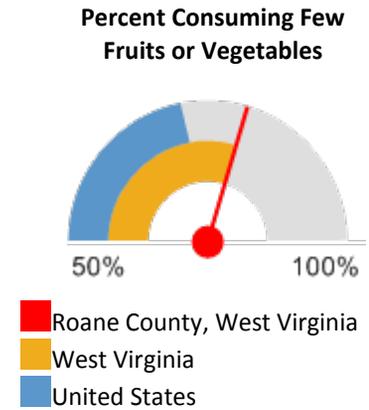
The percent of Roane County's adult (18+ years) population that consumes less than five servings of fruits and vegetables each day is 79.60% (WV: 79.53%, US: 71.96%). The percentage of adults (18+ years) who report being physically inactive (no physical activities or exercises such as running, calisthenics, golf, gardening, or walking that are not part of your regular job) in Roane County is 29.80%; WV's percentage is 27.60% which is still higher than the national percentage (23.08%). Lastly, the percentage of adults (18+ years) who smoke cigarettes some days or every day is 34.40% in Roane County, 25.96% in WV, and 18.21% nationwide.

Inadequate Fruit/Vegetable Consumption (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report consuming less than 5 servings of fruits and vegetables each day. This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may illustrate a cause of significant health issues, such as obesity and diabetes.

Report Area	Total Population (Age 18)	Population Consuming Few Fruits or Vegetables	Percent Consuming Few Fruits or Vegetables
Roane County, West Virginia	11,853	9,434.99	79.60%
West Virginia	1,424,575	1,133,009.57	79.53%
United States	227,267,677	163,541,452.90	71.96%

Note: This indicator is compared with the state average. No breakout data available. Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2003-2009. Source geography: County.

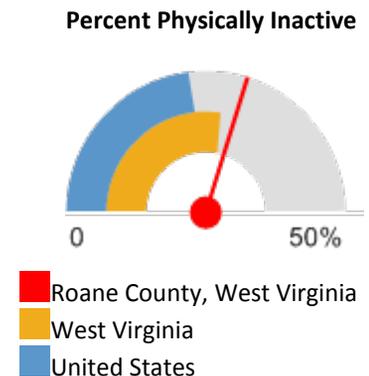


Physical Inactivity (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?". This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

Report Area	Total Population (Age 18)	Number Physically Inactive	Percent Physically Inactive
Roane County, West Virginia	11,853	3,532.19	29.80%
West Virginia	1,424,575	393,192.72	27.60%
United States	227,267,677	52,442,306.05	23.08%

Note: This indicator is compared with the state average. No breakout data available. Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010. Source geography: County.

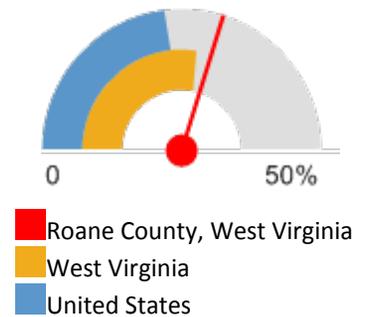


Tobacco Usage (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report currently smoking cigarettes some days or every day. This indicator is relevant because tobacco use is linked to leading causes of death such as cancer and cardiovascular disease.

Report Area	Total Population (Age 18)	Number Cigarette Smokers	Percent Cigarette Smokers
Roane County, West Virginia	11,853	4,077	34.40%
West Virginia	1,424,575	369,765	25.96%
United States	227,267,677	41,378,420	18.21%

Percent Cigarette Smokers



Note: This indicator is compared with the state average. No breakout data available.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010. Source geography: County.

Health Outcomes Summary

Measuring morbidity and mortality rates allows assessing linkages between social determinants of health and outcomes. By comparing, for example, the prevalence of certain chronic diseases to indicators in other categories (e.g., poor diet and exercise) with outcomes (e.g., high rates of obesity and diabetes), various causal relationships may emerge, allowing a better understanding of how certain community health needs may be addressed.

The percentage of adults (18+ years) who self-report having poor or fair health in Roane County is 24.10%, which is higher than that of West Virginia (21.30%) and nationwide (15.50%). This population also self-reports poor dental health [six or more of their permanent teeth have been removed due to tooth decay, gum disease, or infection] at 37.92%, significantly higher than WV and the nation (30.74% and 15.57%, respectively).

Cancer is one of the leading causes of death in WV (and the US); the rate of death due to cancer in Roane County is 210.66, which is higher than the WV (206.73) and national (178.64) rates. It is important to distinguish the incidence of cancers separately to better target interventions; some of the top cancer incidences in the community are breast cancer; colon and rectum cancer; lung cancer; and prostate cancer. The annual incidence rate of females with breast cancer is 105.70 in Roane County, 112.20 in WV, and 122 in the US. The annual incidence rate of colon and rectum cancer in Roane County is 39.60 (WV: 52.60; US: 40.20). The annual incidence rate of lung cancer in Roane County is 92.50, WV is 90.40, and in the US is 67.20. Lastly, the annual incidence rate of males with prostate cancer is 112.40 in Roane County, 138.40 in WV, and 151.40 nationwide.

Strokes and heart disease are both also leading cause of death within the community (and the US). The death rate due to stroke in Roane County is 62.83, which is significantly higher than that of WV (48.69) and the US (42.80). The death rate due to heart disease is 158.39 in Roane County, 162.25 in WV, and 139.53 nationwide. The prevalence of heart disease [the percentage of adults (18+ years) that have been told they have coronary heart disease or angina] in Roane County is 3.92% (WV: 7.44%; US: 4.26%).

Overweight and obesity in adults (18+ years) can indicate an unhealthy lifestyle and may place individuals at risk for further health issues. The self-reported data indicates that Roane County has a higher incidence in the community of overweight adults at 43.92% [WV: 36.29%; US: 36.32%] and obese adults at 34.20% [WV: 32.92%; US: 27.35%].

Two prevalent problems among the community are diabetes and asthma. A diagnosis of diabetes may indicate an unhealthy lifestyle and may put individuals at risk for further health complications. The percentage of adults (20+ years) who have ever been told by a doctor that they have diabetes is 12.90% in Roane County, 11.39% in WV, and 8.77% in the US. Asthma is an important indicator to report since it is often exacerbated by poor environmental conditions in the community. The percentage of adults (18+ years) who self-report that they have ever been told by a doctor, nurse, or other health professional that they had asthma is 15.22% in Roane County, 12.17% in WV, and 13.09% nationwide.

Premature death data can provide a unique and comprehensive look at overall health status of a population. Premature death reports Years of Potential Life Lost (YPLL); YPLL is measures premature death by subtracting the age of death from the 75-year benchmark. Roane County's rate of total years lost is 9813.75, which is higher than both the WV rate (9587) and the US rate (7083).

Low birth weight infants (under 2500g) are at high risk for health problems; this indicator can also highlight the existence of health disparities, such as access to prenatal care. The percent of low birth weight infants in Roane County is 7.42%, which is less than both the state (9.31%) and the US (8.10%). This may be indicative of individuals choosing to deliver outside of the county during the data collection period.

The chlamydia incidence rate of 80.40 for Roane County is much lower than the rates for WV (199.74) and the US (406.89) Chlamydia incidence is an important indicator to review since it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

The motor vehicle crash death [collisions with another motor vehicle, a non-motorist, a fixed object, and a non-fixed object, an overturn, and any other non-collision] is relevant because they are preventable and are a cause of premature death. The average annual death rate in Roane County is 15.63, which is lower than the state average (18.60) but higher than the nationwide average (11.13).

Another preventable indicator is suicide; suicide is an indicator of poor mental health. The rate of death due to intentional self-harm in Roane County is 16.08, which is higher than both WV (14.13) and the US (11.30) rates.

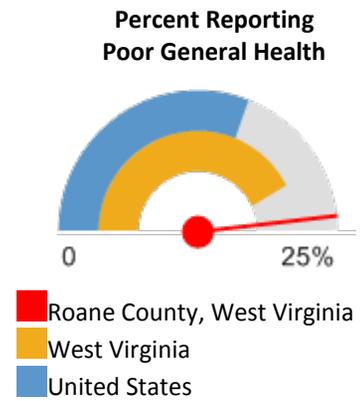
Poor General Health

This indicator reports the percentage of adults age 18 and older who self-report having poor or fair health. This indicator is relevant because it is a measure of general poor health status. The source of this indicator is the Centers for Disease Control and Prevention, Behavioral Risk Factors Surveillance System (BRFSS) 2010.

Report Area	Total Population (Age 18)	Number Reporting Poor General Health	Percent Reporting Poor General Health
Roane County, West Virginia	11,853	2,856.57	24.10%
West Virginia	1,424,575	303,388	21.30%
United States	227,267,677	35,219,128	15.50%

Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010. Source geography: County.



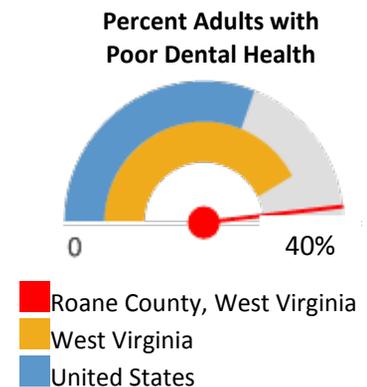
Poor Dental Health

This indicator reports the percentage of adults age 18 and older who self-report that six or more of their permanent teeth have been removed due to tooth decay, gum disease, or infection. This indicator is relevant because it indicates lack of access to dental care and/or social barriers to utilization of dental services.

Report Area	Total Population (Age 18)	Number Adults with Poor Dental Health	Percent Adults with Poor Dental Health
Roane County, West Virginia	11,794	4,472.28	37.92%
West Virginia	1,451,332	446,139	30.74%
United States	232,747,222	36,229,520	15.57%

Note: This indicator is compared with the state average.

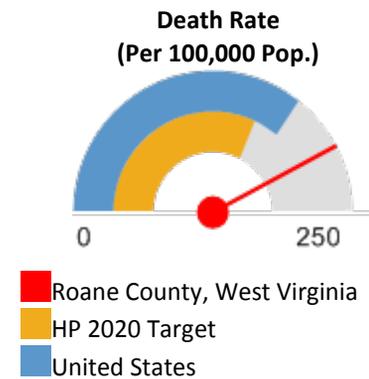
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.



Cancer Mortality

This indicator reports the rate of death due to cancer per 100,000 population, age-adjusted to year 2000 standard. This indicator is relevant because cancer is a leading cause of death in the U.S.

Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Age Adjusted Death Rate (Per 100,000 Pop.)
Roane County, West Virginia	15,119	39	194.67
West Virginia	1,840,609	4,676	201.68
United States	303,844,430	566,121	176.66
<u>HP 2020 Target</u>			<= 160.6



Note: This indicator is compared with the Healthy People 2020 Target.

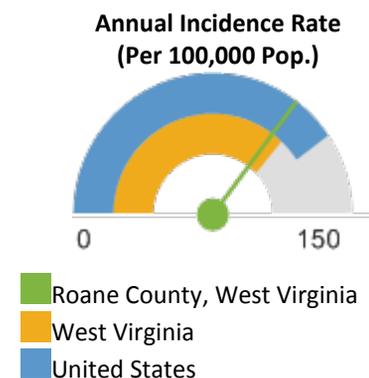
Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death, 2006-2010. Accessed through CDC WONDER.

Source geography: County.

Breast Cancer Incidence

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of females with breast cancer adjusted to 2000 U.S. standard population age groups (Under Age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000)
Roane County, West Virginia	15,123	16	105.70
West Virginia	1,811,403	2,032	112.20
United States	301,461,536	367,783	122



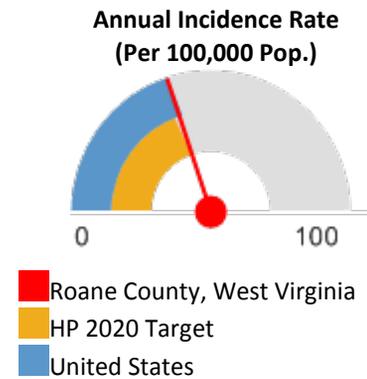
Note: This indicator is compared with the state average.

Data Source: The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009. Source geography: County.

Colon and Rectum Cancer Incidence

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of colon and rectum cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Roane County, West Virginia	15,123	6	39.60
West Virginia	1,811,403	953	52.60
United States	301,461,536	121,188	40.20
<u>HP 2020 Target</u>			<= 38.6



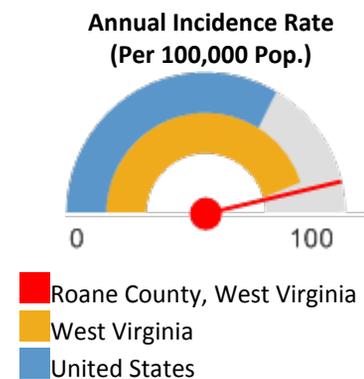
Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009. Source geography: County.

Lung Cancer Incidence

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of lung cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Roane County, West Virginia	15,123	14	92.50
West Virginia	1,811,403	1,638	90.40
United States	301,461,536	202,582	67.20



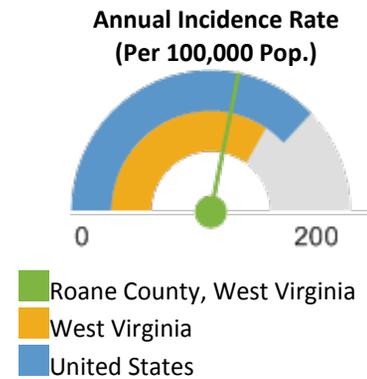
Note: This indicator is compared with the state average.

Data Source: The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009. Source geography: County.

Prostate Cancer Incidence

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of males with prostate cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
-Roane County, West Virginia	15,123	17	112.40
West Virginia	1,811,403	2,506	138.40
United States	301,461,536	456,412	151.40



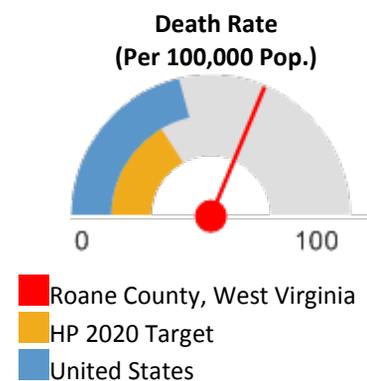
Note: This indicator is compared with the state average.

Data Source: The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009. Source geography: County.

Stroke Mortality

This indicator reports the rate of death due to stroke per 100,000 population, age-adjusted to the 2000 standard. This indicator is relevant because strokes are a leading cause of death in the U.S.

Report Area	Total Population, 2005-2009 Average	Annual Deaths, 2005-2009 Average	Death Rate (Per 100,000 Pop.)
Roane County, West Virginia	15,123	12	62.83
West Virginia	1,811,401	1,101	48.69
United States	301,461,531	135,928	42.80
<u>HP 2020 Target</u>			<= 33.8



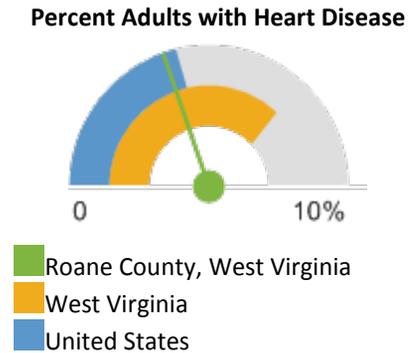
Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death, 2005-2009. Accessed through CDC WONDER. Source geography: County.

Heart Disease Prevalence

This indicator reports the percentage of adults aged 18 and older who have ever been told by a doctor that they have coronary heart disease or angina. This indicator is relevant because coronary heart disease is a leading cause of death in the U.S. and is related to high blood pressure, high cholesterol, and heart attacks.

Report Area	Total Population (Age 18)	Number Adults with Heart Disease	Percent Adults with Heart Disease
Roane County, West Virginia	11,794	462.32	3.92%
West Virginia	1,451,332	107,979	7.44%
United States	232,747,222	9,911,760.85	4.26%



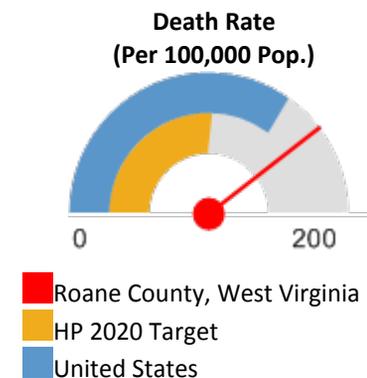
Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.

Heart Disease Mortality

This indicator reports the rate of death due to heart disease per 100,000 population, age-adjusted to the 2000 standard. This indicator is relevant because heart disease is a leading cause of death in the U.S.

Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Age Adjusted Death Rate (Per 100,000 Pop.)
Roane County, West Virginia	15,119	28	146.60
West Virginia	1,840,609	3,509	154.65
United States	303,844,430	432,552	134.65
<u>HP 2020 Target</u>			<= 100.8



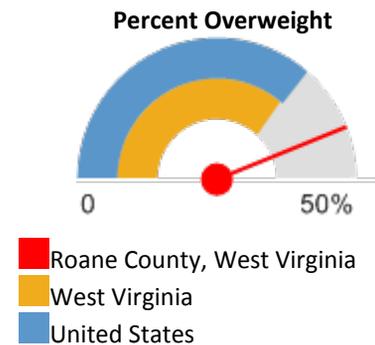
Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death, 2006-2010. Accessed through CDC WONDER. Source geography: County.

Overweight (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report that they have a Body Mass Index (BMI) between 25.0 and 30.0 (overweight). This indicator is relevant because excess weight is a prevalent problem in the U.S.; it indicates an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population (Age 18)	Number Overweight	Percent Overweight
Roane County, West Virginia	11,794	5,180	43.92%
West Virginia	1,451,332	526,688	36.29%
United States	232,747,222	84,541,269.09	36.32%



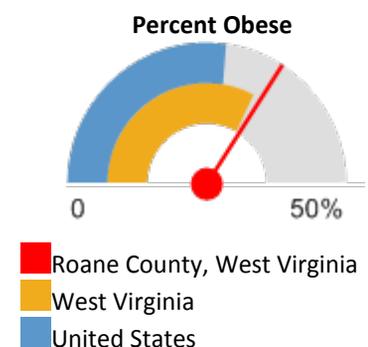
Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.

Obesity (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese). This indicator is relevant because excess weight is a prevalent problem in the U.S.; it indicates an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population (Age 20)	Number Obese	Percent Obese
Roane County, West Virginia	11,374.27	3,890	34.20%
West Virginia	1,382,302.70	455,033	32.92%
United States	224,690,904.71	61,460,308	27.35%



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, National Diabetes Surveillance System, 2009. Source geography: County.

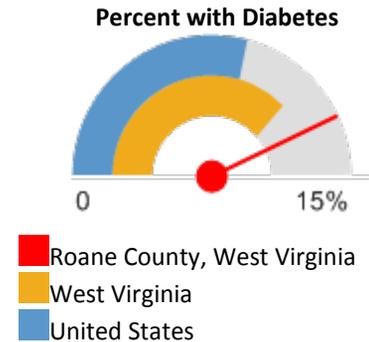
Diabetes Prevalence

This indicator reports the percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes. This indicator is relevant because diabetes is a prevalent problem in the U.S.; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population (Age 20)	Population with Diabetes	Percent with Diabetes
Roane County, West Virginia	12,992.25	1,676	12.90%
West Virginia	1,552,389.78	176,832	11.39%
United States	239,583,791.97	21,015,523	8.77%

Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, National Diabetes Surveillance System, 2009. Source geography: County.



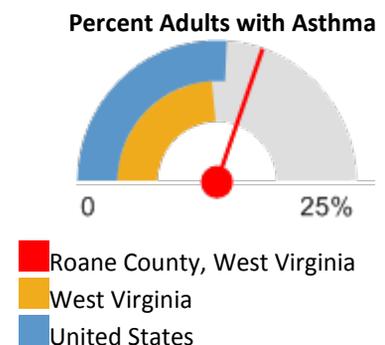
Asthma Prevalence

This indicator reports the percentage of adults aged 18 and older who self-report that they have ever been told by a doctor, nurse, or other health professional that they had asthma. This indicator is relevant because asthma is a prevalent problem in the U.S. that is often exacerbated by poor environmental conditions.

Report Area	Total Population (Age 18)	Number Adults with Asthma	Percent Adults with Asthma
Roane County, West Virginia	11,794	1,795.05	15.22%
West Virginia	1,451,332	176,627	12.17%
United States	232,747,222	30,473,296.44	13.09%

Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source geography: County.



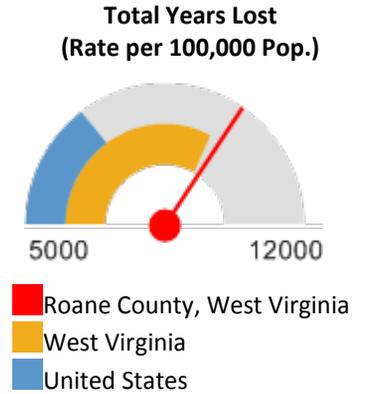
Premature Death

This indicator reports Years of Potential Life Lost (YPLL) before age 75 per 100,000 population for all causes of death, age-adjusted to the 2000 standard. YPLL measures premature death and is calculated by subtracting the age of death from the 75 year benchmark. This indicator is relevant because a measure of premature death can provide a unique and comprehensive look at overall health status.

Report Area	Total Population (2009 Estimate)	Number Premature Deaths	Total Years Lost (Rate per 100,000 Pop.)
Roane County, West Virginia	2,792	274	9,813.75
West Virginia	300,751	28,833	9,587
United States	44,872,844	3,178,324	7,083

Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System, 2008-2010 (As Reported in the 2012 County Health Rankings). Source geography: County.



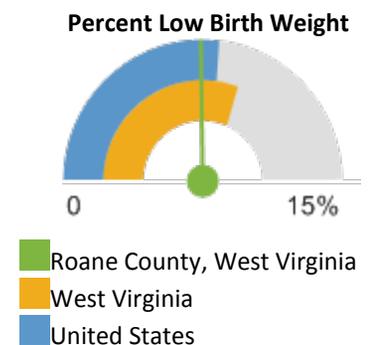
Low Birth Weight

This indicator reports the percentage of total births that were low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

Report Area	Total Births	Number Low Birth Weight (< 2500g)	Percent Low Birth Weight
Roane County, West Virginia	1,173	87	7.42%
West Virginia	147,694	13,756	9.31%
United States	29,126,451	2,359,843	8.10%

Note: This indicator is compared with the state average.

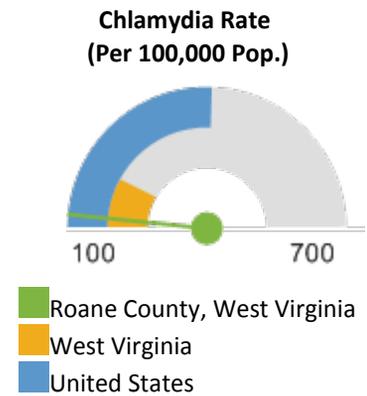
Data Source: Centers for Disease Control and Prevention, National Vital Statistics Systems, 2003-2009. Accessed through the Health Indicators Warehouse. Source geography: County.



Chlamydia Incidence

This indicator reports incidence rate of chlamydia cases per 100,000 population. This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

Report Area	Total Population, 2010 Census	Reported Cases of Chlamydia	Chlamydia Rate (Per 100,000 Pop.)
Roane County, West Virginia	14,926	12	80.40
West Virginia	1,852,994	3,624	199.74
United States	308,730,677	1,236,680	406.89



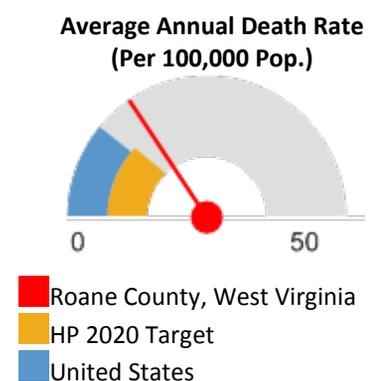
Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention and the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2009. Source geography: County.

Motor Vehicle Crash Death

This indicator reports the rate of death due to motor vehicle crashes per 100,000 population, which include collisions with another motor vehicle, a non-motorist, a fixed object, and a non-fixed object, an overturn, and any other non-collision. This indicator is relevant because motor vehicle crash deaths are preventable and they are a cause of premature death.

Report Area	Total Deaths, 2008-2010	Average Annual Deaths, 2008-2010	Average Annual Death Rate (Per 100,000 Pop.)
Roane County, West Virginia	7	2	15.63
West Virginia	1,034	344	18.60
United States	103,048	34,349	11.13
<u>HP 2020 Target</u>			<= 12.4



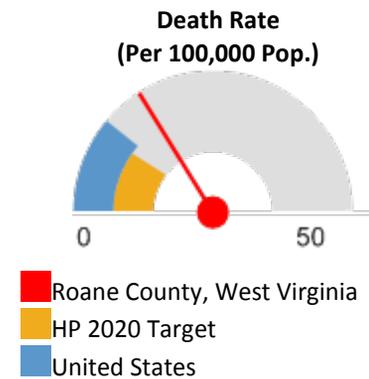
Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System, 2008-2010. Source geography: County.

Suicide

This indicator reports the rate of death due to intentional self-harm per 100,000 population, age-adjusted to year 2000 standard. This indicator is relevant because suicide is an indicator of poor mental health.

Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Age Adjusted Death Rate (Per 100,000 Pop.)
Roane County, West Virginia	15,119	2	17.70
West Virginia	1,840,609	272	14.14
United States	303,844,430	35,841	11.57
<u>HP 2020 Target</u>			<= 10.2



Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death, 2006-2010. . Accessed through CDC WONDER.

Source geography: County.

Overview of Roane County: Comparison with WV and US

The chart below depicts how Roane County compares to West Virginia with the data previously discussed.

Roane County in comparison to West Virginia is:

Better	Similar	Worse
Grocery Store Access	High School Graduation Rate	No High School Diploma
Population Living in a HPSA	School Lunch Eligibility	Unemployment Rate
Preventable Hospital Events	Social or Emotional Support	Poverty Rate (<100% FPL)
Diabetes Management	Teen Births	Population Below 200% of FPL
Breast Cancer Incidence	WIC Authorized Food Store Access	Children in Poverty
Colon Cancer Incidence	High Blood Pressure Management	Percent of SNAP Recipients
Prostate Cancer Incidence	HIV Screenings	Population Living in Food Deserts
Heart Disease Mortality	Fruit/Vegetable Consumption	Recreation and Fitness Facilities
Heart Disease Prevalence	Physical Inactivity	Access to Primary Care
Low Birth Weight	Cancer Mortality	Consistent Source of Primary Care
Chlamydia Incidence	Lung Cancer Incidence	Colon Cancer Screening
Motor Vehicle Crash Death	Obesity	Tobacco Usage
	Diabetes Prevalence	Poor General Health
	Premature Death	Poor Dental Health
		Stroke Mortality
		Overweight
		Asthma Prevalence
		Suicide

The chart below depicts how Roane County compares to the United States with the data previously discussed.

Roane County in comparison to United States is:

Better	Similar	Worse
High School Graduation Rate	Social or Emotional Support	No High School Diploma
Grocery Store Access	Colon Cancer Incidence	Unemployment Rate
WIC Authorized Food Store Access		Poverty Rate (<100% FPL)
Population Living in a HPSA		Population Below 200% of FPL
Diabetes Management		Children in Poverty
High Blood Pressure Management		School Lunch Eligibility
Breast Cancer Incidence		Percent of SNAP Recipients
Prostate Cancer Incidence		Teen Births
Heart Disease Prevalence		Population Living in Food Deserts
Low Birth Weight		Recreation and Fitness Facilities
Chlamydia Incidence		Access to Primary Care
		Consistent Source of Primary Care
		Preventable Hospital Events
		Colon Cancer Screening
		HIV Screenings
		Fruit/Vegetable Consumption
		Physical Inactivity
		Tobacco Usage
		Poor General Health
		Poor Dental Health
		Cancer Mortality
		Lung Cancer Incidence
		Stroke Mortality
		Heart Disease Mortality
		Overweight
		Obesity
		Diabetes Prevalence
		Asthma Prevalence
		Premature Death
		Motor Vehicle Crash Death
		Suicide

Community Health Care Services Inventory

An assessment of health care services was completed in order to gain an understanding of the availability of health care services in the country. The assessment of the health care services was compiled through general data collection.

The following is a summary of the health care services available in Roane County.

Health Professional Shortage Area: The Health Resources and Services Administration of the US Department of Health and Human Services has determined that certain geographical areas are considered health professional shortage areas based on the ratio of providers to population size, or a combination of population size and an unusually high need for providers. Unusually high need may be based on a higher than usual birth rate in the area, a high infant death rate, or more than 20% of the population having an income below the Federal Poverty Level. Roane County is currently a HPSA for all three areas [primary care, mental health, and dental care] due to low income and a shortage of mental health professionals.

Ambulance: Ambulance services are provided by Roane County EMS.

Emergency Care Services: Emergency room and ambulance services are available to Roane County citizens 24 hours a day, 7 days a week, and 365 days a year at Roane General Hospital.

Dental Care Providers: There are two dental care offices in Roane County that provide dental services, Gentle Dental Care and Brannon's Dental.

Domestic Violence Intervention: Domestic Violence Intervention is provided through the Roane County Court System. In addition, support can be received from the Family Crisis Intervention Center, which has an outpost in Roane County [Eliminate Violent Environments – EVE].

Home Health Care: Roane Homecare, located in Spencer, provides home health care to the community. Hospice home care is also available through HospiceCare, which serves Roane County along with 15 other counties in the region.

Mental Health/Substance Abuse Services: Westbrook provides drug and alcohol treatment, acute care, school care, and individual therapy on a fee for service, sliding scale payment option. They are the Medicaid contract provider for Roane County. Psychiatric specialty care is available in Kanawha and Wood counties.

Non-emergent Medical Transportation: Little Kanawha Transit Authority offers non-emergent medical transportation free for qualified Medicaid recipients.

Physical Therapy: Roane General Hospital provides outpatient as well as inpatient physical therapy services to Roane County citizens.

Pharmacy: There are four retail pharmacies located in Spencer that provide services for the entire county (Fruth Pharmacy, Staats Pharmacy, Wal-Mart Pharmacy, & Willow Drug) as well as a pharmacy in the hospital to provide services for inpatients.

Primary Care Services: Providers offer a full range of primary care services in office/clinics located at Roane General Hospital and other facilities throughout the county.

Public Health Nursing Services: There is Public Health Nursing, or County Nursing services, available in Roane County that is offered through the Roane County Health Department. Broad duties include well-child checks, immunization programs, family planning services, cancer screening programs, nutrition programs, and programs to assist seniors. Additional tasks mandated by the State include disaster planning, bioterrorism response, and community health issue responsibilities ranging from safe food and water to pandemic flu response.

Summary of Secondary Data

Primary care and emergency care, both treatment and emergency transportation, have a strong presence throughout the area. Twenty-four hour emergency care is available in Spencer and is accessible to the other areas in the county. However, the secondary data, including the health care services inventory, revealed several areas of concern.

The following health care issues have surfaced through analysis of secondary databases:

- Level of Poverty in the Region – There is a high percentage of the population in poverty. In addition, over 40% of children live in poverty.
- Vulnerable Populations – Data revealed that children, seniors, and low/no education residents face barriers accessing health care, especially if these groups are living in poverty.
- Cancer Incidence – There is a high incidence of breast, colorectal, lung, prostate cancers in the population. Cancer mortality is higher in Roane County than in the US.
- Disease Incidence – The rate of obesity, heart disease, stroke, diabetes, etc. is higher than that of the national rate.

The health care services inventory revealed:

- A shortage of providers for acute care mental health treatment
- A shortage of inpatient and residential treatment programs for drug and alcohol treatment in both Roane County and West Virginia
- Limited non-emergent transportation options

PRIMARY DATA ANALYSIS

A surveying process was used to gain an understanding of key health issues in the community. Survey research is a leading form of data collection that provides for efficient collection of data over large populations, and can be done in person, by telephone, or through a public distribution mechanism.

A key informant survey and a community health needs population survey were designed and administered to gain information about a variety of topics including health status, behavioral health issues, and access to care.

The key informant survey was expected to yield the following information:

- Identification of the importance of health care issues and current perceptions of how the community addresses these issues
- Identification of health care services that are not meeting the needs of the community
- Identification of gaps in the current health care service delivery model
- Identification of process for solving health care service issues

The population survey asked residents to respond to questions regarding health and health care issues in their community. The questions were presented in the following seven sections:

- Quality of Life Statements
- Community Improvement
- Personal Health
- Access to Care / Family Health
- Emergency Preparedness
- Roane General Hospital
- Demographics

Key Informant Survey

Participants

Individuals selected to participate in the key informant survey were health and human services providers, business leaders, and individuals with unique knowledge of the community and/or public health.

Survey Methodology

Key informants were identified and were requested to participate in the health care needs assessment process by completing the key informant survey. Invitations to take the survey were communicated to 78 community and business leaders and health care professionals. The surveys were distributed in January 2013.

Results of the Key Informant Survey

The overall response rate was 62% for the key informant survey. Key informants were asked to respond to the questions regarding health care and health service delivery issues in the community. Respondents were also asked to identify their perception of Roane General Hospital and how the community is addressing key health care services. In addition, key informants were asked about potential solutions to health care issues and their priority for solving the identified issues. Detailed key informant survey results are located in *Appendix A*.

Following is a summary of the results from each area of the survey:

- Identification of the important health care issues and current perceptions of how the community addresses these issues
- Identification of health care services that are not meeting the needs of the community
- Identification of gaps in the current health care service delivery model
- Identification of processes for solving health care service issues

Identification of the important health care issues and current perceptions of how the community addresses these issues

Health Issues

Key informants identified obesity and overweight as the most serious health problem facing the community (96%). Also identified as serious issues were diabetes (69%), cardiovascular disease (54%), hypertension (31%), and COPD/asthma (13%).

Health Behaviors

The top health behaviors that key informants believe needs to be addressed in the community are prescription drug misuse/abuse (23%), illegal substance abuse (23%), and physical inactivity (21%).

Identification of health care services that are not meeting the needs of the community

Gaps in existing services

Key informants believe that some of the current services provided in the community are not completely meeting the community's need. These services are mental health treatment (63%), non-emergent transport (29%), pediatric care (25%), dental care (19%), and the amount of primary care providers providing treatment (19%).

Populations

Key informants believe that certain populations in the community are not being served by the existing services provided in the community. The populations are working uninsured (63%), working underinsured (35%), and infants & children [birth to 12 years of age] (34%).

Identification of gaps in the current health care service delivery model

Services not available

Some services that would be beneficial to the community are not currently available. Key informants believe that the missing services include substance abuse care (46%), weight management (40%), cardiology (27%), dialysis (27%), and pediatric care (27%).

Reasons for leaving area

Key informants believe that most patients who leave the community to receive health care services elsewhere are doing so because they are receiving specialty treatment (94%) or are being referred to outside providers (69%).

Identification of processes for solving health care service issues

Barriers

Key informants identified the following as barriers to receiving adequate health care in the community: affordability (56%); education level (50%); lack of awareness (48%); lack of providers (44%); and access (31%).

Solutions

Key informants identified important elements in solving the community's health needs. These elements are improving upon community involvement and collaboration between other health care organizations (77%); finding initial and sustainable funding for projects (77%); better communication with community (71%); creating structured programs with proper oversight (48%); and maintaining a culturally competent planning and administrative team (33%).

Key Informant Survey Summary

The results of the key informant survey indicate a desire for future planners to focus on the following:

- Health Issues
 - Obesity & Overweight
 - Diabetes
 - Cardiovascular Disease
 - Hypertension
 - COPD / Asthma
- Health Behaviors
 - Prescription Drug Misuse / Abuse
 - Illegal Substance Abuse
 - Physical Inactivity
- Existing Services
 - Mental Health Treatment
 - Non-Emergent Transport
 - Lack of Primary Care Providers

In addition to these services, key informants believe the community could benefit from considering offering the following currently unavailable services:

- Substance Abuse Treatment
- Weight Management
- Cardiology
- Dialysis
- Pediatric Care

Health care providers should be aware of the vulnerable populations in the community. Key informants indicated that future planning should take into account these specific populations: working uninsured, working underinsured, and infants/children.

Community Survey

Participants

The community survey was distributed to five groups: Roane County Board of Education Employees, Roane General Medical Clinic Patients, Roane General Hospital Employees, Roane County Committee on Aging Staff and Visitors, and Roane General Urgent Care Patients.

Survey Methodology

Community members were requested to participate in the health care needs assessment process by completing the community survey. The surveys were distributed in February and March 2013. For ease of completion, these surveys were mailed to Roane County residents and offered for completion by local health care providers on site or at home. When appropriate, self-addressed stamped envelopes were provided to encourage participation.

Results of the Community Survey

One thousand were distributed in the community for completion. The overall response rate was 37% for the community survey. Detailed community survey results are located in *Appendix B*.

Although the following information will be valuable in determining unmet health care needs in the community, it may not be representative of segments of the population since it a small sample size and may have a selection bias; over half of the respondents identified a home zip code in Spencer (25276). Surveys were returned from all areas in the community. The top five zip codes that surveys were returned from were:

- Spencer (56%)
- Reedy (9%)
- Gandeenville (4%)
- Walton (4%)
- Looneyville (3%)

Community members were asked to respond to the questions regarding health and health issues in their communities. The questions were presented in the following seven sections:

1. Quality of Life Statements
2. Community Improvement
3. Personal Health
4. Access to Care / Family Health
5. Emergency Preparedness
6. Roane General Hospital
7. Demographics

Quality of Life Statements

The quality of life statements section of the community survey consisted of six questions that asked participants to use a Likert scale to evaluate life in Roane County.

The first question asked participants how they felt about the statement “There is good health care in Roane County” considering the cost and quality, number of options, and availability of health care in the county; the majority of respondents agreed with this statement. The majority of respondents either agreed or strongly agreed with the following statements: Roane County is a good place to raise children; Roane County is a good place to grow old; Roane County is a safe place to live; and there is plenty of help for people during times of need in Roane County. The only question in this section that the majority of respondents disagreed or strongly disagreed with was the statement “There is plenty of economic opportunity in Roane County.”

Community Improvement

The community improvement section of the community survey consisted of two questions that asked participants to choose their top three choices on issues that need improvement in Roane County.

The top responses concerning the services that need the most improvement in the community are the availability of employment, better/more recreational facilities, and drug/alcohol abuse support programs. The top responses concerning the health behaviors that the community needs more information about are prescription drug misuse or abuse; illegal substance abuse; and exercising / managing weight.

Personal Health

The personal health section of the community survey consisted of eleven questions that asked participants provide information about their personal health experiences.

The majority of respondents stated that they receive most of their health related information from a doctor or nurse. Respondents ranked their health status mostly as good or very good; the most common health conditions (as diagnosed by a health professional) were high blood pressure, overweight/obesity, high cholesterol, and depression/anxiety. Over half of the survey participants responded that they exercise for at least half an hour every week most commonly at home; those responding that they do not exercise chose the following reasons most often: too tired to exercise; not enough time to exercise; or do not like to exercise. The majority of those surveyed do not smoke; those who do smoke would most likely go to a doctor with help quitting. The last personal health question inquired if the respondent had received an influenza vaccination in the past year; over sixty percent of respondents received the vaccine.

Access to Care / Family Health

The access to care / family health section of the community survey consisted of six questions that asked participants to provide information about how they access care for themselves and their family. The most frequently selected insurances among respondents were the State Employee Health Plan (PEIA), Blue Cross Blue Shield of WV (WVBCBS), and Medicare/Medicaid. When sick or ill, the highest percent of respondents chose that they would go to the doctor's office, an urgent care center, or a medical clinic.

Survey participants were asked if they had ever had a problem getting the care they needed; approximately twenty percent responded that they had a problem. This problem most often occurred at the dentist, medical clinic, or with a general practitioner. Respondents stated that the top reasons that prevented them from receiving the care they needed/desired was that they had no insurance, the insurance they had would not cover what was needed, or that the insurance cost (deductible/copay) was too high.

The last question in this section asked survey participants what services they believe are most needed in Roane County. The most frequently selected service was cardiology, followed by weight management, an allergist, OB/GYN, and pediatric care.

Emergency Preparedness

The emergency preparedness section of the community survey consisted of seven questions that asked participants to evaluate if they would be prepared for and how they would react during an emergency or disaster situation.

The majority of survey participants (ninety percent) responded that their living spaces were equipped with either a smoke detector or smoke and carbon monoxide detectors. However, the majority of respondents do not have a basic emergency supply kit [water, non-perishable food, first aid supplies, medication, flashlight and batteries, blankets, etc.] for their family. When asked what way they got information during an emergency, respondents mostly identified television, radio, and the internet.

When asked if they would evacuate during a mandatory evacuation order, the majority of respondents said they would. Of those who would not evacuate they cited the following reasons most often: concern about personal property; concern about family safety; and concern about leaving pets. Survey participants were also asked how far they lived from a health care facility; the majority of respondents answered that they live within 15 miles of a facility.

Roane General Hospital

The section of the community survey asked three questions concerning visits to Roane General Hospital. Over eighty percent of survey participants responded that they had visited Roane General Hospital for any reason in the past year.

The majority of respondents' impression of the facility was positive by agreeing to the following statements: facility was clean; facility staff were friendly and helpful; services received were of good quality; and facility has up to date technology. The last question of this section asked if after their visit to Roane General Hospital would they recommend its services to family and friends; the majority of respondents replied that they would recommend Roane General Hospital's services to others.

Demographics

The last section of the community survey asked the survey respondents twelve questions about their demographics. These questions were designed to access information about the population being served in the community.

The majority of respondents were female between the age of 25 and 64, with the highest percentage between the ages of 45-54. Over ninety-five percent of respondents identified their race as white and that they do not speak a language other than English at home. The majority of respondents stated that their education level is of a high school graduate or higher [completion of college degree or vocational training] with the highest percent identified as being a high school graduate (or GED equivalent).

Survey participants were asked to identify their employment status; the majority of respondents identified that they are employed full time. Participants were also asked to identify their annual household income; the highest percentage of respondents stated their income was between \$15,000 and \$34,999 [twenty-four percent] followed by between \$50,000 and \$74,999 [twenty percent].

The last question asked survey participants to fill in their home zip code. The majority of respondents identify 25276 (Spencer) with the other top choices of 25270 (Reedy) and 25243, 25286, 25259 (Gandeeville, Walton, Looneyville, respectively).

Community Survey Summary

The results of the community survey indicate a need to focus on increasing the availability of health care services such as:

- Drug/Alcohol Abuse Support Programs
- Illegal Substance Abuse Treatment
- Weight Management Programs
- Better / More Recreational Facilities (all ages)
- Specialty Services: Cardiology, Allergist, OB/GYN, Pediatric Care

According to the community survey, the following barriers to care need to be addressed to improve services in Roane County

- Cost of health care
- Insurance issues (no insurance, insurance not accepted locally, or copay/deductibles too costly)
- The need to travel outside of community to receive desired services
- High unemployment

FINDINGS AND ANALYSIS

Introduction

Three major sources of information were used to analyze the health care needs of the community. These were (1) secondary databases and the Health Care Services Inventory, (2) the key informant survey, and (3) the community survey. Each source offered a unique insight into the needs of the community and combined to form a clear assessment of area's health care needs.

Health Care Issues

The key informants and the general population agreed that several health care issues were of concern that also aligns with the health statistics data.

The following major health issues emerged from all data sources:

- Illegal Substance Abuse
- Weight Management / Physical Inactivity
- Obesity / Overweight as precursors to Hypertension, Cardiovascular Disease, and Diabetes

Additional health issues were noted either in the health statistics or the survey results:

- Mental Health
- Prescription Drug Misuse/Abuse
- Non-Emergent Transportation

Current Health Care Services Not Meeting Needs of the Community:

Services currently offered in the community may not adequately meet the needs of the community. Key informants and the general population agreed that the following health care services may need some consideration to increase/expand services.

- Mental Health Treatment
- Number of primary care providers
- Non-Emergent Transportation

Health Services Unavailable in Community

Key informants and the general population identified the following services as being unavailable locally:

- Substance Abuse Treatment
- Weight Management
- Medical and Surgical Specialists – Cardiology, OB/GYN, Pediatric Care, Allergist, Dialysis

Based on the research and analysis, the following health care services issues have been identified as issues that should be explored during further strategic planning processes.

1. Substance Abuse and Detoxification Treatment
 - Inpatient facility not available in local service area
 - Limited long-term treatment options
 - High rates of substance abuse in region
 - Both key informants and community members identified this as a current issue

2. Comprehensive Mental Health Treatment Options
 - Outpatient treatment options limited – especially among low-income / uninsured populations
 - Inpatient treatment not available in local service area
 - Both key informants and community members identified this as an unmet need

3. Obesity / Overweight: Weight Management
 - Evidence of unhealthy lifestyle, which puts individuals at risk for further health issues such as hypertension, heart disease, diabetes, etc.
 - Local service area data shows higher rates of overweight and obesity compared to the state and national averages
 - Limited education / outreach performed about opportunities available for community
 - Both key informants and community members identified this as a current issue

4. Non-Emergent Transportation
 - Lack of transportation options is a barrier to accessing care in the region
 - Lack of a comprehensive public transit system
 - Limited local health services necessitates travel outside of service area to receive treatment
 - Limited affordable non-emergent transportation options locally, especially for bed-bound individuals

5. Health Care Providers
 - a. Primary Care Providers
 - Data shows that the shortage of primary care providers contributes to access and health status issues; the local service area is within the geographically designated Health Professional Shortage Area (HPSA)
 - The local service area's rate of primary care providers is markedly decreased from the rate of West Virginia and the Nation.
 - Both key informants and community members identified this as current issue

b. Specialty Care

- Both key informants and community members identified the lack of specialty services as a unmet need in the community
- Services that were identified as requiring travel outside of the local service area were Cardiology, OB/GYN, Allergist, and Dialysis
- The unavailability of these services combined with the lack of affordable non-emergent transportation options means that some individuals are unable to receive the care they need

6. Community Education / Outreach

- Community survey revealed the need for improving awareness of local health care services
 - Community members identified that they did not believe or did not know if the following services were available in the local service area
 - Weight management
 - Allergy care
 - OB/GYN
 - Substance abuse treatment
 - Wellness/recreation centers
 - Mental health care options
- General population cited the lack of local pediatric care as a unmet need although in rural communities, family practice typically cares for both children and adult patients

NEXT STEPS

This community health needs assessment is a crucial step in future strategic planning. Setting priorities cannot be accomplished without gaining an understanding of the community's health care needs and concerns. Addressing the health care service issues identified during the assessment is the next step in the planning process.

After reviewing the results of the health care need assessment, priorities for action steps were determined. The following gaps in health services were identified as a priority in future planning efforts.

- Substance abuse and detoxification treatment and education
- Mental health services
- Weight management options and education
- Non-emergent medical transportation
- Recruitment of health care providers for primary and specialty care
- Community education and outreach

Action Steps (Strategic Planning)

- Community outreach and education about health services
 - Existing non-emergent transportation options
 - Existing mental health services
- Recruitment of full-time primary care provider for Roane General Medical Clinic
- Expand primary care services through Rural Health Clinic at Walton School-Based Clinic location (opened 06/03/2013)
- Continued and additional partnerships with specialty care providers
 - Explore Telemedicine opportunities
 - Explore outpatient chemotherapy services
 - Explore kidney dialysis services
 - Explore weight management services
 - Explore substance abuse/detoxification services

The progress made upon these action steps will be evaluated during the annual strategic planning sessions for Roane General Hospital by the administrative team.

APPENDIX A: KEY INFORMANT SURVEY RESULTS

1. What is the most serious health problem facing the community?
 - Obesity/Overweight – 96%
 - Diabetes – 69%
 - Cardiovascular Disease – 54%
 - Chronic Pain Management – 33%
 - Hypertension – 31%
 - COPD/Asthma – 13%
 - STIs – 2%
 - Drug and Substance Abuse – 2%

2. Key informants acknowledged the following health behavior issue of high importance in the community: (Percentage of number 1 ranking)
 - Prescription Drug Misuse/Abuse – 23%
 - Illegal Substance Abuse – 23%
 - Physical Inactivity – 21%
 - Smoking/Tobacco Use – 15%
 - Oral Care – 6%

3. Key informants identified the following gaps in existing services
 - Mental Health Treatment – 63%
 - Non-Emergent Transport – 29%
 - Pediatric Care – 25%
 - More Family Practice Physicians – 19%
 - Dental Care – 19%
 - Wellness Center – 17%
 - School-Based Clinics – 13%
 - Respite – 13%

4. Key informants identified the following populations as not being served adequately:
 - Working Uninsured – 35%
 - Working Underinsured – 35%
 - Infants & Children – 34%
 - Unemployed – 17%

5. Key informants identified the following services as unavailable in community:
 - Substance Abuse Care – 46%
 - Weight Management – 40%
 - Cardiology – 27%
 - Dialysis – 27%
 - Pediatric Care – 27%
 - Dermatology – 23%
 - OB/GYN – 23%
 - Orthopedics – 15%
 - Neurology – 8%

6. Key informants identified the following as reasons that require travel outside of community:
 - Specialty Treatment – 94%
 - Referrals – 69%

7. Key informants identified the following as barriers that need eliminated:
 - Affordability – 56%
 - Education Level – 50%
 - Lack of Awareness – 48%
 - Lack of Providers – 44%
 - Access – 31%

8. Key informants identified the following as important elements for success in solving the community's health needs
 - Community Involvement/Collaboration – 77%
 - Funding (Initial/Sustainable) – 77%
 - Communication – 71%
 - Structured Programs with Oversight – 48%
 - Culturally Competent Planning and Administration – 33%

9. Key informants identified the following ways to raise the community's trust in the hospital and health care
 - More communication between the hospital and community (outreach) – 60%
 - Recognize the changing needs of the community – 17%

APPENDIX B: COMMUNITY SURVEY RESULTS

1. Quality of Life Statements

- There is good health care in Roane County
 - 9% - Strongly agree
 - 44% - Agree
 - 27% - Neutral
 - 17% - Disagree
 - 4% - Strongly disagree
 - Roane County is a good place to raise children
 - 25% - Strongly agree
 - 47% - Agree
 - 21% - Neutral
 - 5% - Disagree
 - 2% - Strongly disagree
 - Roane County is a good place to grow old
 - 17% - Strongly agree
 - 50% - Agree
 - 24% - Neutral
 - 8% - Disagree
 - 1% - Strongly disagree
 - Roane County is a safe place to live
 - 19% - Strongly agree
 - 59% - Agree
 - 18% - Neutral
 - 3% - Disagree
 - 1% - Strongly disagree
 - There is plenty of help for people during times of need in Roane County
 - 13% - Strongly agree
 - 49% - Agree
 - 26% - Neutral
 - 8% - Disagree
 - 4% - Strongly disagree
 - There is plenty of economic opportunity in Roane County
 - 1% - Strongly agree
 - 5% - Agree
 - 23% - Neutral
 - 43% - Disagree
 - 27% - Strongly disagree
-

2. Community Improvement

- Services that need improvement
 - 59% - Availability of employment
 - 32% - Better / more recreational facilities
 - 27% - Drug / alcohol abuse
 - 25% - More affordable health services
 - 22% - Elder care options
 - 20% - Better housing
 - 19% - Better/more healthy food choices
 - 18% - Child care options
 - 18% - Health family activities
 - 16% - # of Health care providers
 - 16% - Transportation options
 - 15% - Mental health care
 - 13% - Services for disabled persons
 - 10% Counseling / support groups/ therapy
 - 1% - Culturally appropriate health services
- Health behaviors that community needs more information about
 - 49% - Prescription drug misuse/abuse
 - 42% - Illegal substance abuse
 - 40% - Exercising / managing weight
 - 34% - Smoking / tobacco use
 - 31% - Eating well / nutrition
 - 21% - Preparing for emergency / disaster
 - 20% - Safe sex
 - 19% - Dental check-ups/preventative care
 - 16% - Caring for special needs/disabilities
 - 16% - Elder care
 - 14% - Medical check-ups/prev. care
 - 15% - Prenatal care (pregnancy)
 - 5% - Flu shots and other vaccines

3. Personal Health

- Get health-related information from
 - 60% - Doctor / nurse
 - 24% - Internet
 - 16% - Friends and family
 - 12% - Pharmacist
 - 12% - Hospital
 - 9% - Books / magazines
 - 3% - Health department
 - 1% - Church
 - 1% - My child's school
 - 1% - Help lines
- Health state
 - 24% - Excellent
 - 25% - Very Good
 - 43% - Good
 - 19% - Fair
 - 5% - Poor
- Health conditions
 - 37% - High blood pressure
 - 32% - Overweight / obesity
 - 31% - High cholesterol
 - 22% - Depression or anxiety
 - 15% - COPD / asthma
 - 12% - Diabetes (not during pregnancy)
 - 10% - Angina / heart disease
 - 8% - Cancer
 - 7% - Osteoporosis
- Physical activity or exercise for at least half an hour per week
 - 54% - Yes
- Where exercise/physical activity occurs
 - 75% - Home
 - 27% - Park or walking trails
 - 23% - RGH's Fitness Center
 - 7% - Private gym
 - 3% - Public recreation center
- Reasons not exercising for at least 30mins/week
 - 38% - I'm too tired to exercise
 - 37% - I don't have enough time
 - 19% - I don't like to exercise
 - 15% - Job is physical or hard labor
 - 15% - No access to facility
 - 14% - I'm physically disabled
 - 13% - Other
 - 10% - I don't know
 - 9% - Costs too much
 - 8% - No child care
 - 5% - No exercise partner
 - 4% - Exercise is not important to me
 - 1% - There is no safe place to exercise
- Smoker
 - 81% - No
- Where to go for help with quitting smoking
 - 40% - Doctor
 - 28% - I don't know
 - 14% - Other
 - 12% - Quit line
 - 12% - Not applicable, do not want to quit
 - 6% - Pharmacy
 - 5% - Church
 - 5% - Private counselor/therapist
 - 2% - Health department
- Influenza vaccination
 - 62% Yes

4. Access to Care / Family Health

- Where to go when sick
 - 44% - Doctor's office
 - 31% - Urgent care center
 - 24% - Medical clinic
 - 3% - Hospital
 - 2% - Health department
- Primary Health Insurance Plan
 - 35% - State Employee Health Plan
 - 24% - Blue Cross Blue Shield of WV
 - 24% - Medicare / Medicaid
 - 9% - No health insurance plan
 - 8% - Other plan purchased from work
 - 3% - Other plan purchased on own
 - 2% - Military, Tricare, CHAMPUS, or VA
- Problem getting care
 - 80% - No
 - 18% - Yes
- Where did problem getting care occur
 - 39% - Dentist
 - 27% - Medical clinic
 - 23% - General practitioner
 - 19% - Eye care provider
 - 17% - Pharmacy / prescriptions
 - 13% - Hospital
 - 10% - Mental health services
 - 10% - OB/GYN
 - 7% - Urgent care center
 - 6% - Physical therapy
 - 4% - Pediatrician
 - 1% - Medical transport
 - 1% - Health department
 - 1% - Home health care
 - 1% - Social services
 - 1% - Nursing home care
- What problem occurred
 - 51% - No insurance
 - 49% - Insurance coverage inadequate
 - 44% - Cost too high
 - 34% - Could not get appointment
 - 29% - The wait was too long
 - 21% - Dentist wouldn't take insurance
 - 14% - Doctor wouldn't take insurance
 - 13% - No way to get there
 - 4% - Pharmacy wouldn't take insurance
 - 4% - Didn't know where to go
 - 1% - Hospital wouldn't take insurance
- What services are needed in Roane County
 - 33% - Cardiology
 - 31% - Weight management
 - 29% - Allergist
 - 29% - OB/GYN
 - 25% - Pediatric care
 - 22% - Substance abuse treatment
 - 20% - Wellness / recreation
 - 19% - Chronic pain management
 - 18% - Chemotherapy
 - 18% - Day care for the elderly
 - 18% - Dermatology
 - 17% - Mental health care
 - 17% - Neurology
 - 16% - Dialysis center
 - 12% - Orthopedics
 - 11% - Rheumatology

5. Emergency Preparedness

- Smoke / carbon monoxide detectors
 - 90% - Smoke detector or smoke & carbon monoxide detectors
 - Emergency supply kit
 - 51% - No
 - 45% - Yes
 - Way of getting information during disaster/emergency
 - 48% - Television
 - 38% - Radio
 - 21% - Internet
 - 15% - Neighbors
 - 9% - Text message (emergency alert)
 - 7% - Social networking site
 - 6% - Don't know / not sure
 - 4% - Print media
 - Evacuate during a mandatory order
 - 68% - Yes
 - 10% - No
 - 19% - Don't know / not sure
 - Why not evacuate
 - 33% - Concern about property
 - 28% - Concern about family safety
 - 28% - Concern about leaving pets
 - 3% - Lack of transportation
 - 19% - Lack of trust in public officials
 - 11% - Concern about personal safety
 - 9% - Concern about traffic/ can't get out
 - 1% - Health problems
 - 18% - Don't know / not sure
 - How far to closest health care facility
 - 33% - 1-5 miles
 - 21% - 5-10 miles
 - 18% - 10-15 miles
 - 15% - 15-25 miles
 - 9% - 25-50 miles
-

6. Roane General Hospital

- Visit RGH in past 12 months
 - 84% - Yes
- Impression of the facility
 - 89% - Facility was clean
 - 82% - Staff were friendly and helpful
 - 74% - Services received were good quality
 - 59% - Facility has up to date technology
 - 2% - Facility was not clean
 - 3% - Facility lacks current technology
 - 3% - I received no assistance from staff
 - 6% - I received bad service from a provider
- Would you recommend RGH's services to your family and friends
 - 74% - Yes
 - 28% - No or don't know / not sure

7. Demographics

- Age
 - 4% - 18-24 years old
 - 18% - 25-34 years old
 - 18% - 35-44 years old
 - 22% - 45-54 years old
 - 19% - 55-64 years old
 - 10% - 65-74 years old
 - 5% - 75-84 years old
 - 2% - 85 years old or older
- Sex
 - 71% - Female
 - 27% - Male
- Language other than English at home
 - 97% - No
- Hispanic, Latino, or Spanish origin
 - 95% - No
- Race
 - 96% - White
- Marital Status
 - 66% - Married
 - 10% - Never married / single
 - 10% - Divorced
- Employment status
 - 60% - Employed full time
 - 17% - Retired
 - 11% - Disabled
- Education level
 - 28% - High school graduate (or GED equivalent)
 - 20% - Bachelor's degree
 - 16% - Graduate or professional degree
 - 15% - Associates degree or vocational training
- Income
 - 12% - \$15,000 - \$24,999
 - 12% - \$25,000 - \$34,999
 - 12% - \$35,000 - \$49,999
 - 20% - \$50,000 - &74,999
 - 10% - \$75,000 - \$99,999
- Zip code
 - 56% - 25276 (Spencer)
 - 9% - 25270 (Reedy)
 - 4% - 25243 (Gandeeville)
 - 4% - 25286 (Walton)
 - 4% - 25259 (Looneyville)

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