# Putnam County Community Health Assessment 2018-2019

## XECUTIVE SUMMARY

This report is a comprehensive community health assessment conducted by the Putnam County Health Department and with local community partners. The current process of undertaking the assessment with key partners enables review of health issues facing the County, as well as determinants of health, in order to establish health priorities and resource allocation for population health improvement. The overall purpose of the community health assessment process is to support rational, data-driven allocation of resources, and identify high-need areas of health for Putnam County residents to support planning. The needs assessment process itself is considered to be as important as the product that is generated. The results of this community assessment report will determine the scope of health improvement efforts that will be reflected in a written community health improvement plan. Moving forward, assessments will be conducted in an ongoing manner, with annual updates of any new available data, to establish additional primary and secondary data collection, and to engage the community in identifying the most pressing health issues in an ever-changing environment. The information contained in this report will provide the foundation for health improvement efforts In Putnam County over the next three to five years.

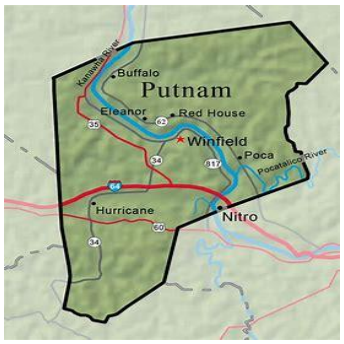
## DESCRIPTION OF COMMUNITY

Putnam County, West Virginia is the community defined for evaluation of new and/or updated data reflecting the health of the population for this Community Health Assessment. The county is located in the southcentral portion of West Virginia, surrounded by five adjacent counties, and is part of the Huntington-Ashland, WV-KY-OH Metropolitan Statistical Area. Putnam County is 346 square miles in size, with 160.5 persons per square mile, compared to the West Virginia average of 77.1 persons per square mile (U.S. Census Bureau, 2010). The total estimated population of the County in 2017 was 56,792 and has consistently increased in population size since 2010 (U.S. Census Bureau, 2018). Putnam County has two cities (Hurricane and Nitro), five towns, three census-designated places, and 12 unincorporated communities (U.S. Census Bureau, 2018). Putnam County lies along Interstate-64 between two of the largest cities in the state, Charleston and Huntington.


| Year | Population |
|---|---|
| 2017 | 56,792 |
| 2016 | 56,743 |
| 2015 | 56,596 |
| 2014 | 56,356 |
| 2013 | 56,033 |
| 2012 | 55,660 |
| 2011 | 55,305 |
| 2010 | 54,940 |

In 2018, the County Health Rankings, sponsored by the Robert Wood Johnson Foundation, ranked Putnam County as the 3rd healthiest county in West Virginia of all 55 counties for health outcomes (a gauge of the health status of a county) and 1st healthiest for health factors (those factors that influence the health of a county). Over the past five years the ranking has improved from 12th in the state to 3rd most recently for health outcomes and has consistently maintained ranking as 1st for health factors. As of June 1, 2018, Putnam County was listed in the Federal Register as a Health Professional Shortage Area (HPSA) for primary care, mental health care, and dental care (Health Resources and Services Administration, 2018). Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of primary medical care, dental or mental health providers and may be geographic (a county or service area), population (e.g. low income or Medicaid eligible) or facilities (e.g. federally qualified health center or other state or federal prisons).

| Year | Health Outcomes Ranking | Health Factors Ranking |
|---|---|---|
| 2014 | 12 | 1 |
| 2015 | 6 | 1 |
| 2016 | 2 | 1 |
| 2017 | 2 | 1 |
| 2018 | 3 | 1 |




## SOCIOECONOMIC INDICATORS

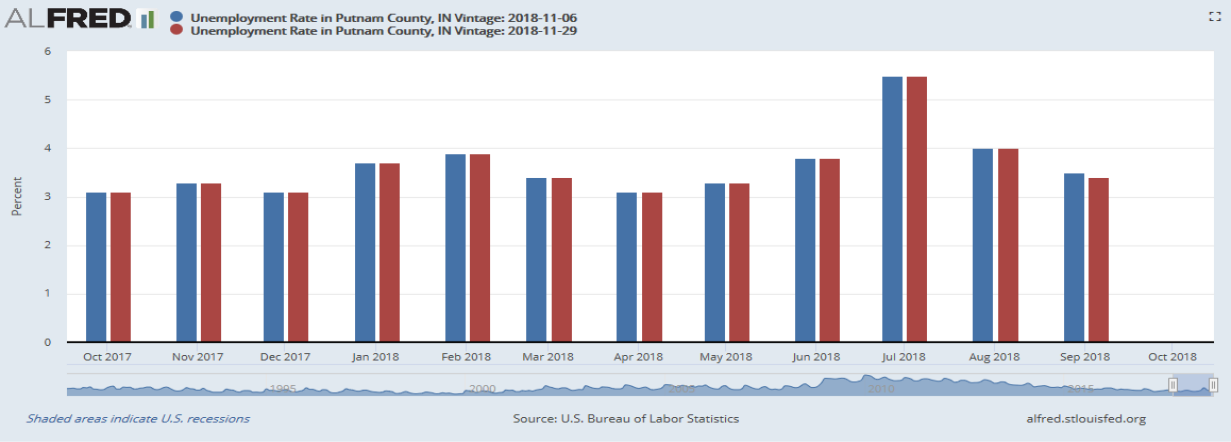
Data was examined for the following to examine changes in socio-economic indicators having implications for health: 1) employment; 2) educational attainment; 3) household income and population in poverty; and 4) health insurance coverage, access and quality of care. Evaluation and analysis of this updated data is important due as they are known to significantly influence health and well-being in local communities.

### Employment

In Putnam County, the total civilian labor force was estimated to be 58% of the total population in 2016, as compared to 53.8% for West Virginia. For the period of 2010 to 2015, the total civilian labor force was 58.9% to 60.2%. Since 2005 the unemployment rate in Putnam County, West Virginia has ranged from 2.8% in July 2008 to 10.9% in January 1992. The current unemployment rate for Putnam County is 5.0% in April 2018. Over the past 25 years, the unemployment rate in Putnam County has ranged from a low of 2.8% in December of 2008 to a high of 10.9% in January of 1992 (Figure 1).

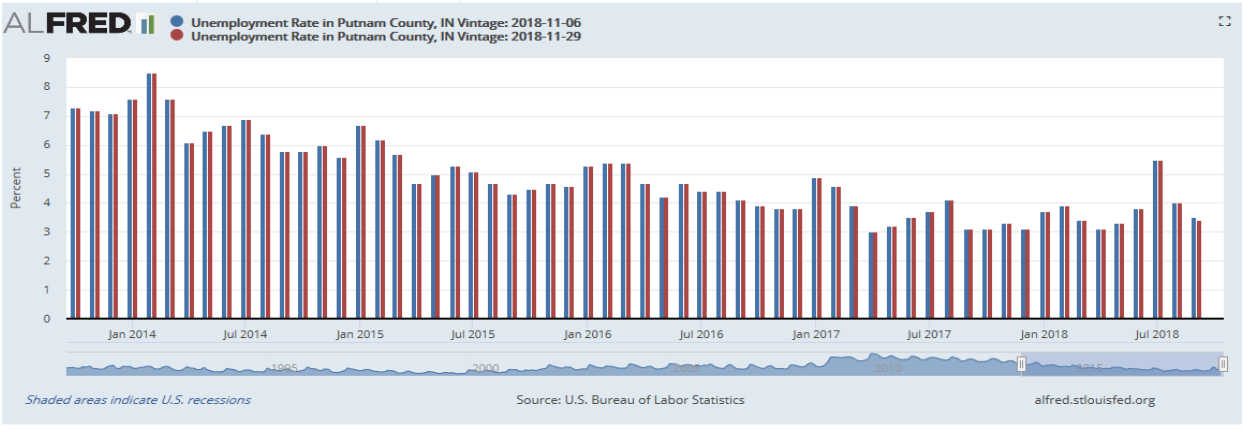


**Figure 1**. 1-Year Unemployment Rates for Putnam County, 2017-



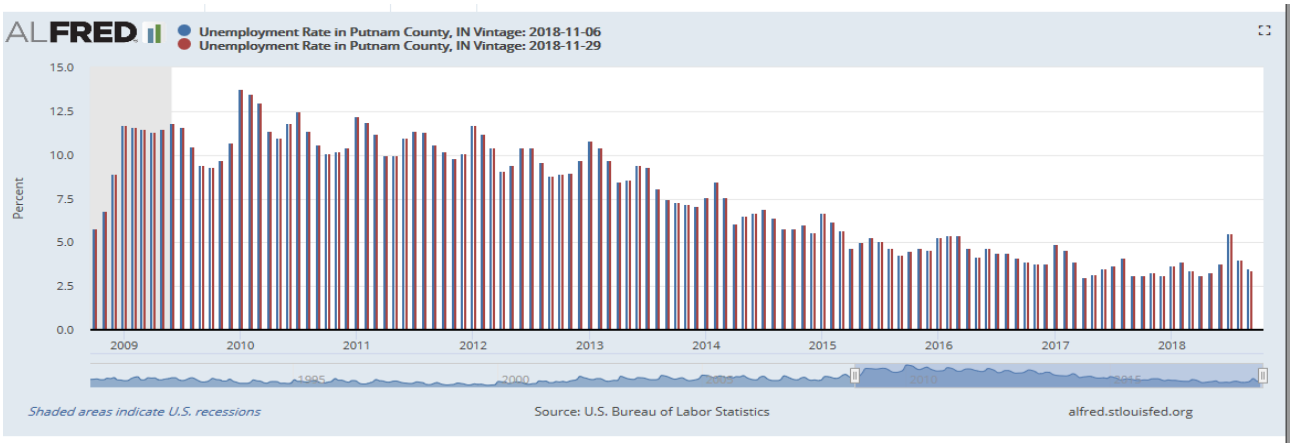

*Source: Fred Economic Data, St. Louis Federal Reserve, 2018*

**Figure 2**. 5-Year Unemployment Rates for Putnam County, 2014-2018




*Source: Fred Economic Data, St. Louis Federal Reserve, 2018*

**Figure 3**. 10-Year Unemployment Rates for Putnam County, 2009-2018




*Source: Fred Economic Data, St. Louis Federal Reserve, 2018*

## Educational Attainment

U.S. Census data reported for 2017 demonstrated that in Putnam County, 91.9% of adults have a high school degree or higher as compared to 85.9% for West Virginia and 87.3% for the U.S. (Table 1). From 2012 to 2017, the percent of individuals who are high school graduates or higher has increased from 88.9% to 91.9% and the percent having a bachelor's degree or higher has increased from 23.8% to 24.9% (Table 1). The proportion of adults in the County having less than a high school education was 14.6% in 2017 as compared to 16.6% in 2012 in Putnam County, and as compared to 14.1% for West Virginia and 12.6% for the U.S. The graduation rates for each of the four high schools in Putnam County vary as well, range from 93% to 98% (Table 2).

**Table 1.** Level of Educational Attainment, Putnam County, West Virginia, and U.S., 2010, 2015.

| Level of Educational Attainment | 2012 | | | 2017 | | |
|---|---|---|---|---|---|---|
| | Putnam Co | WV | U.S. | Putnam Co | WV | U.S. |
| Less than 9th grade | 3.6% | 6.2% | 6.0% | 4.9% | 4.7% | 5.4% |
| 9th to 12th grade, no diploma | 6.4% | 10.4% | 8.2% | 9.7% | 9.4% | 7.2% |
| HS Graduate (includes equiv.) | 37.2% | 40.9% | 28.2% | 38.0% | 40.6% | 27.3% |
| Some college; no degree | 19.7% | 18.5% | 21.3% | 19.9% | 18.5% | 20.8% |
| Associate's degree | 8.1% | 6.1% | 7.7% | 9.1% | 6.9% | 8.3% |
| Bachelor's degree | 15.4% | 11.0% | 17.9% | 15.1% | 12.0% | 19.1% |
| Graduate or prof degree | 9.7% | 6.9% | 10.3% | 10.6% | 7.9% | 11.8% |
| **High School graduate or higher** | **88.9%** | **83.4%** | **85.7%** | **91.9%** | **85.9%** | **87.3%** |
| **Bachelor's degree or higher** | **23.8%** | **17.9%** | **28.5%** | **24.9%** | **19.9%** | **30.9%** |

*Source: U.S. Census Bureau*

**Table 2**. Summary of High School Score Card Results

| Category | Buffalo H.S. | Hurricane H.S. | Poca H.S. | Winfield H.S. |
|---|---|---|---|---|
| Enrollment | 341 | 1,237 | 552 | 861 |
| Graduation Rate | 94% | 98% | 93% | 96% |
| AP Tested | ----- | 42% | 19% | 39% |
| AP Passed | ----- | 52% | 31% | 48% |

*Source:*

**Buffalo High School:** student body makeup is 51% male and 49% female, and the total minority enrollment is 1 percent.

**Hurricane High School:** students have opportunity to take AP course work and exams; AP participation rate 42%. The student body makeup is 50% male and 50% female, and the total minority enrollment is 5%.

**Winfield High School**: ranked 6th within WV, students have opportunity to take AP course work and exams. AP rate 39 percent. The student body makeup is 52 percent male and 48 percent female; total minority enrollment is 5 percent.

## Household Income

Putnam County's median income in 2017 was $59.111 (Table 3) compared to the median income of $44,061 for West Virginia. The median income for Putnam County represents a continued trend of increasing income; however, overall this indicator continues to be less than that for the U.S.

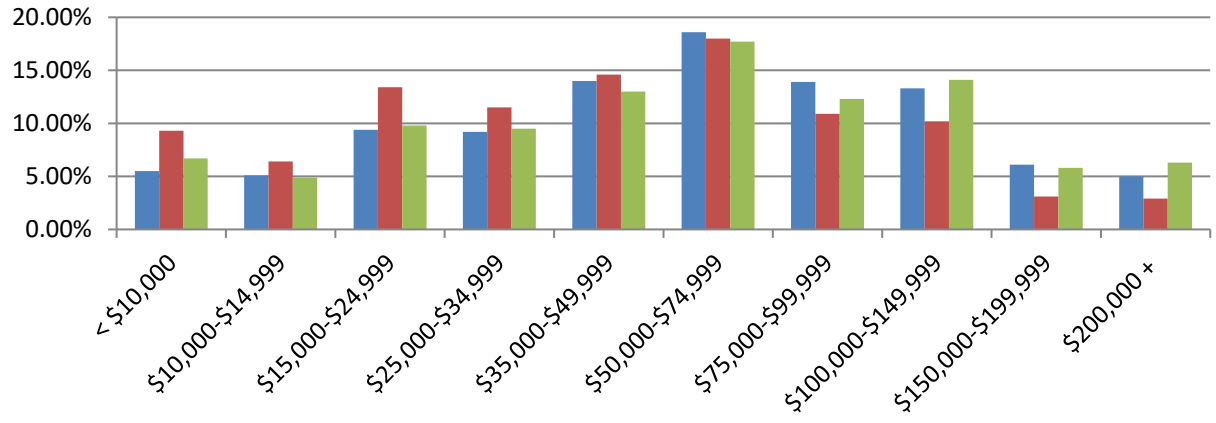
**Table 3**. Median income, Putnam County, 2010-2015.

| Year | Median Household Income |
|---|---|
| **2012** | $56.081 |
| **2013** | $54,854 |
| **2014** | $55,939 |
| **2015** | $56.774 |
| **2016** | $56,640 |
| **2017** | $59.111 |

*Source: U.S. Census Bureau, American Community Survey, 2018*

The 2017 U.S. Census data indicated that the largest percentage of household incomes in Putnam County (18.6%) fell between $50,000 and $74,999, consistent with that observed in WV and the U.S (Figure 4); however 14.0% of the population has a household income of $35,000 to $49,999 and additionally, 20.0% have a household income of less than $24,999 (10.6% less than $14,900). Finally, disparities are noted as compared to the proportion of the population (24.4%) with annual household income of $100,000 or more.

**Figure 4**. Median household income, by level of income, Putnam County, WV, US, 2017.

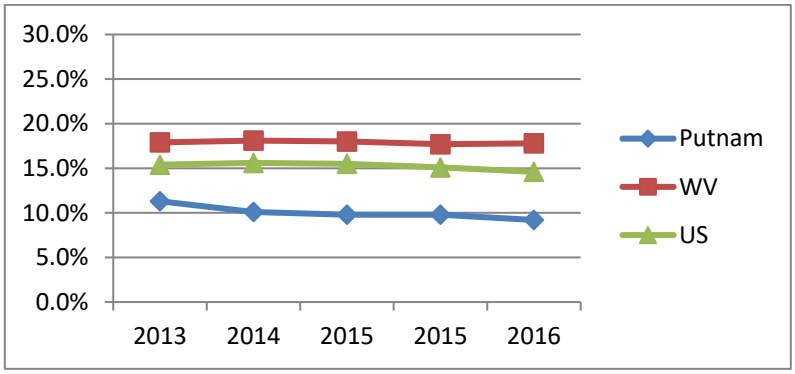



*Source: U.S. Census Bureau, 2018*

## Population in Poverty

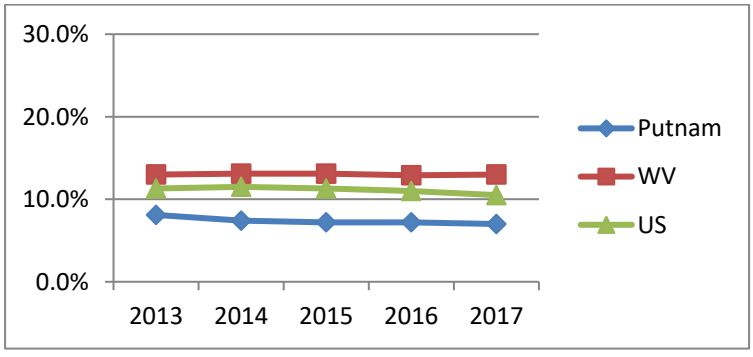
In Putnam County, the number of all individuals over 18 years living in poverty from 2013 to 2017 has decreased from 11.3% in 2013 to 9.2% in 2017 and remains much below the rate for WV (Figure 5). The rate of families living in poverty in Putnam County has decreased slightly from 8.1% to 7.0% over the past five years and is lower than the state or national rate (Figure 6). The percentage of children under 18 years living in a household with income below poverty level in the past 12 months, has decreased significantly in Putnam County, from 17.0% in 2013 to 9.6% in 2017 and in 2017 remains well below the State or national levels (Figure 7). Finally, the percentage of adults over 65 years of age living in a household with income below poverty level in the past 12 months has consistently increased in Putnam County over the past five years, from 5.7% in 2013 to 9.1% in 2017 (Figure 8).

**Figure 5**. Percentage of all individuals with income below poverty level in past 12 months, Putnam County, West Virginia, U.S., 2013-2017.



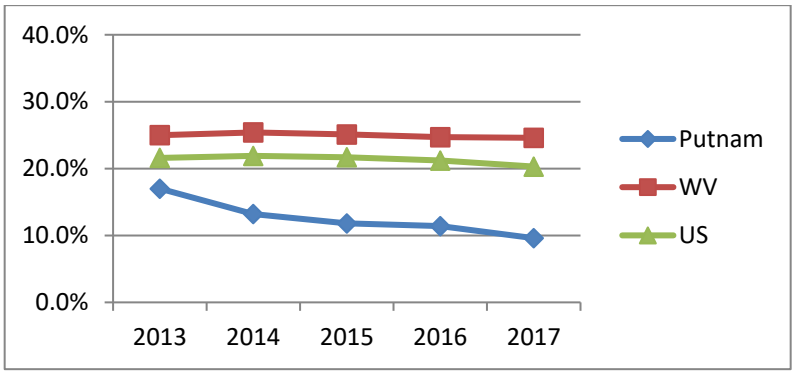

*Source: U.S. Census Bureau, American Community Survey, 2018*

**Figure 6**. Percentage of families living in a household with income below poverty level in past 12 months, Putnam County, West Virginia, U.S., 2013-2017.



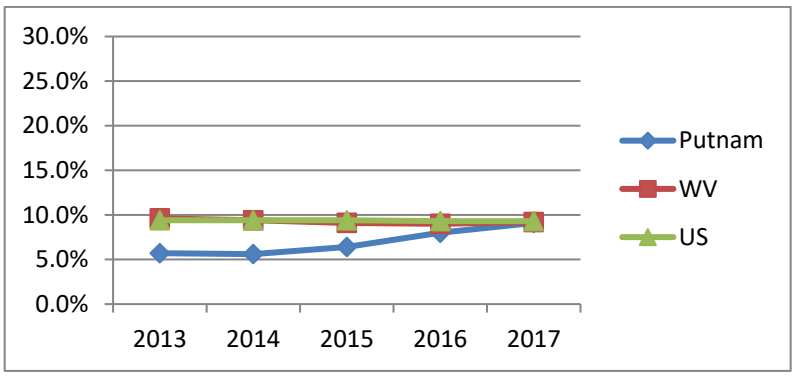

*Source: U.S. Census Bureau, American Community Survey, 2018*

**Figure 7**. Percentage of children under 18 years living in a household with income below poverty level in past 12 months, Putnam County, West Virginia, U.S., 2013-2017.




*Source: U.S. Census Bureau, American Community Survey, 2018*

**Figure 8**. Percentage of adults over age 65 years living in a household with income below poverty level in past 12 months, Putnam County, West Virginia, U.S., 2013-2017.




*Source: U.S. Census Bureau, American Community Survey, 2018*

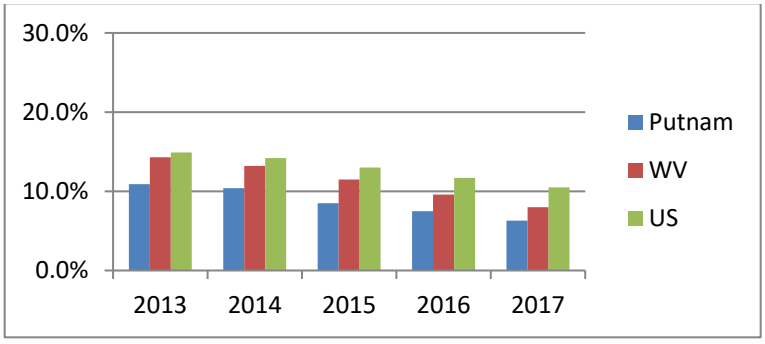
## Health Insurance Coverage and Health Care Access

A variety of health insurance coverage options exist, including employer-provided plans, independently purchased plans, health savings accounts, government-subsidized and government-funded plans. It is well known that lack of health insurance coverage presents significant risk to those needing health care services. According to a Harvard Medical School study, approximately 45,000 adults die each year as a result of not having health insurance coverage. This means that an American dies every 12 minutes of every year because they have no health care insurance coverage.

### Adults without Health Insurance Coverage

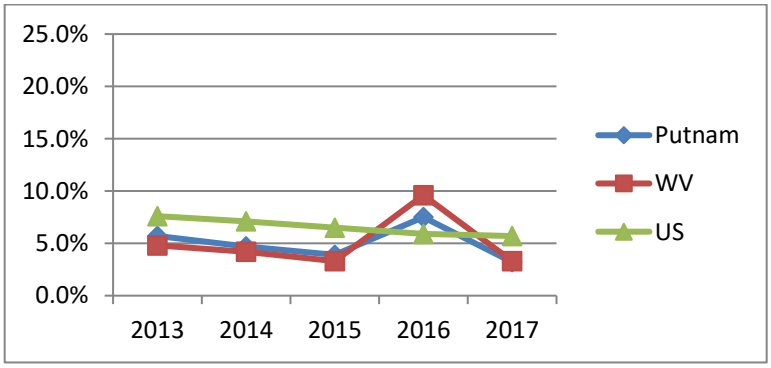
With the availability of subsidized marketplace plans for purchase in West Virginia, as well as significant Medicaid expansion, examining access to health care is an important factor in health outcomes for Putnam County. Figures 9 and 10 below provide the most recent data publically available from the U.S. Census Bureau, for Putnam County, West Virginia, and the U.S., for all individuals and those under 18 years of age without healthcare insurance coverage. From 2013 to 2017, uninsured rates for all individuals decreased in Putnam County from 10.9% to 6.3%. For children 18 years and under, uninsured rates decreased from 5.7% to 3.2% for that same period. It is important to note that for children under 18 years the percentage uninsured in Putnam County in 2013-2015 was higher than the state rate, but has since been less than the state rate in 2016 and 2017.

**Figure 9**. Percentage of all individuals without healthcare insurance coverage, Putnam County, West Virginia, U.S., 2013-2017.



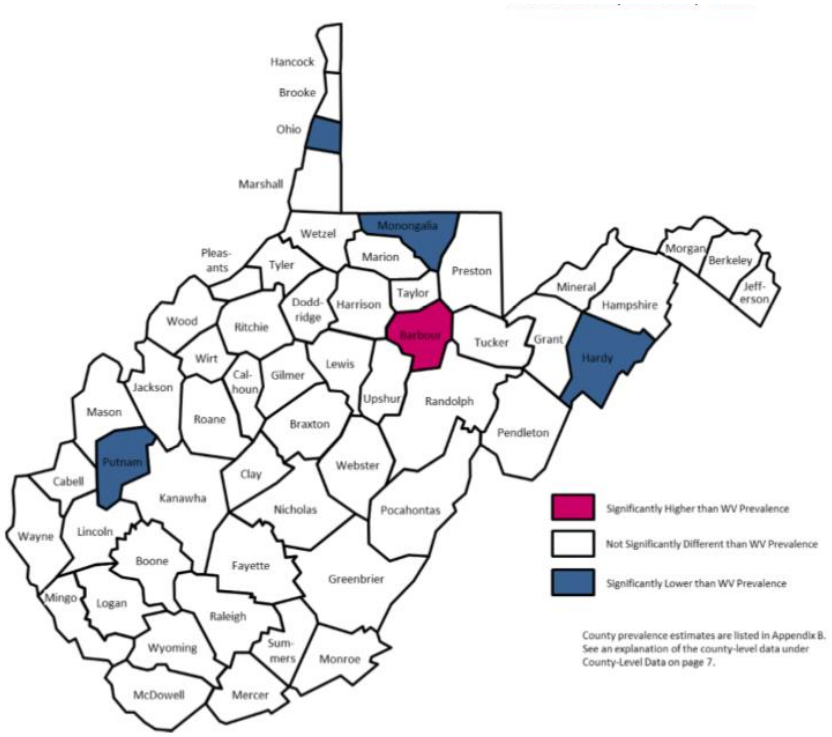

*Source: U.S. Census Bureau, American Community Survey, 2018*.

**Figure 10**. Percentage of individuals under 18 years without healthcare insurance coverage, Putnam County, West Virginia, U.S., 2013-2017.




*Source: U.S. Census Bureau, American Community Survey, 2018.*

**Figure 11**. Prevalence f uninsured in WV by county, 2011-2015.




*Source: Small Area Health Insurance Estimates*

## Primary Care Physician (PCP) Ratio

Access to care requires not only financial coverage, but also access to providers. While high rates of specialist physicians have been shown to be associated with higher (and perhaps unnecessary) utilization, sufficient availability of primary care physicians is essential for preventive and primary care, and, when needed, referrals to appropriate specialty care (County Health Rankings, 2018). 'Primary Care Physicians' is the ratio of the population to total primary care physicians and include non-federal, practicing physicians (M.D.'s and D.O.'s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics. In 2015, the most recent data available, the primary care provider ratio of 920:1 was the second lowest in the last five years in Putnam County and significantly lower than the ratio in either West Virginia or the U.S. Putnam County is geographically located between two of the largest cities in the state as well as having good resources for primary care in the county.

Table 4. PCP Ratio for 2011 to 2015 in Putnam County, West Virginia, and the U.S.

| Year | Putnam County | West Virginia | U.S. |
|---|---|---|---|
| 2011 | 1018:1 | 1,306:1 | 1,051:1 |
| 2012 | 941:1 | 1,299:1 | 1,045:1 |
| 2013 | 930:1 | 1,290:1 | 1,040:1 |
| 2014 | 900:1 | 1,290:1 | 1,040:1 |
| 2015 | 920:1 | 1,270:1 | 1,030:1 |

*Data Source: Area Health Resource File/American Medical Association*

## Other Primary Care Providers

Physicians are not the only providers of primary health care, and other healthcare professionals such as nurse practitioners (NPs) and physician assistants (PAs) serve as sources of routine, preventive care. This segment of the healthcare workforce is expected to grow more rapidly than physician supply, this is another indicator that is important to consider with regard to access to healthcare services. 'Other Primary Care Providers' is the ratio of the county population to the number of other primary care providers, taking into consideration NPs, PAs, and clinical nurse specialists. For the period of 2013 to 2017 the ratio of 'other primary care providers' has decreased from 2,687:1 to 2.278:1 in Putnam County but remains much higher than the rate for WV which is only 796:1.

Table 5. Other Primary Care Provider Ratio for 2013 to 2017 in Putnam County and West Virginia.

| Year | Putnam County | West Virginia |
|---|---|---|
| 2013 | 2,687:1 | 1,097:1 |
| 2014 | 3,147:1 | 1,047:1 |
| 2015 | 2,839:1 | 958:1 |
| 2016 | 2,186:1 | 868:1 |
| 2017 | 2,278:1 | 796:1 |

*Data Source: CMS, National Provider Identification*

**Mental Health Provider Ratio**

It is estimated that 30% of the population in WV lives in a county designated as a Mental Health Professional Shortage Area (County Health Rankings, 2018). In addition to increasing access to primary care, the Affordable Care Act was also created to increase coverage for mental health services. However, significant workforce shortages continue to present significant challenges in accessing mental health services, especially in rural, Appalachian states such as West Virginia. Mental Health Providers is defined as the ratio of the county population to the number of mental health providers and includes psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental health care. In 2015, marriage and family therapists and mental health providers that treat alcohol and other drug abuse were added to this measure. Given that Putnam County is located in WV, which is known as 'ground zero' of the nation's heroin epidemic, this indicator is especially critical in considering access to care for those with substance use disorders.

For the period of 2013 to 2017 the mental health provider ratio has seen a consistent decrease from 1,820:1 to 1,350:1. The mental health provider ratio in Putnam County continues to be higher than the rate for WV or top U.S. performers with ratios as low as 330:1. A key finding of the 'Putnam County 2018 Key Stakeholder Survey' was the need for mental health services. In that report, 57% of respondents identified those with mental health needs as the second greatest population with unmet need, 77% identified drug use (illicit drugs) as a health risk/risky behavior, and 90% identified lack of access to mental health and/or addiction services as a significant or highly significant barrier to care.

Table 6. Mental Health Provider Ratio for 2013 to 2017 in Putnam County, West Virginia, and U.S.

| Year | Putnam County | West Virginia | Top U.S. Performers |
|---|---|---|---|
| 2013 | 1,820:1 | 1,291:1 | 521:1 |
| 2014 | 1,717:1 | 1,091:1 | 412:1 |
| 2015 | 1,620:1 | 1,030:1 | 390:1 |
| 2016 | 1,320:1 | 950:1 | 360:1 |
| 2017 | 1,360:1 | 890:1 | 330:1 |

*Data Source: CMS, National Provider Identification*

**Dentist Ratio**

It has been well established that untreated dental disease can lead to serious health effects including pain, infection, and tooth loss. Although lack of sufficient providers is only one barrier to accessing oral health care, much of the country, especially West Virginia as the only state entirely located in central Appalachia, suffers from significant shortage in dental providers. Dentists are measured as the direct ratio of the county population to total dentists in the county. The dentist provider ratio has remained fairly consistent over the past five years with 2017 ratio reported as 2,280:1 (Table 7). This remains above that of WV or top U.S. performers. A consistent key finding of local public health system partners on the '2018 Key Informant Survey' was 66% identifying lack of access to dental services as a significant or highly significant barrier in Putnam County.

Table 7. Dentist Ratio for 2012 to 2016 in Putnam County, West Virginia, and U.S.

| Year | Putnam County | West Virginia | Top U.S. Performers |
|---|---|---|---|
| 2012 | 2,268:1 | 2,130:1 | 1,392:1 |
| 2013 | 2,266:1 | 2,065:1 | 1,377:1 |
| 2014 | 2,370:1 | 2,030:1 | 1,340:1 |
| 2015 | 2,270:1 | 1,960:1 | 1,320:1 |
| 2016 | 2,280:1 | 1,920:1 | 1,280:1 |

*Data Source: Area Health Resource File/National Provider Identification file*

**Preventable Hospital Stays**

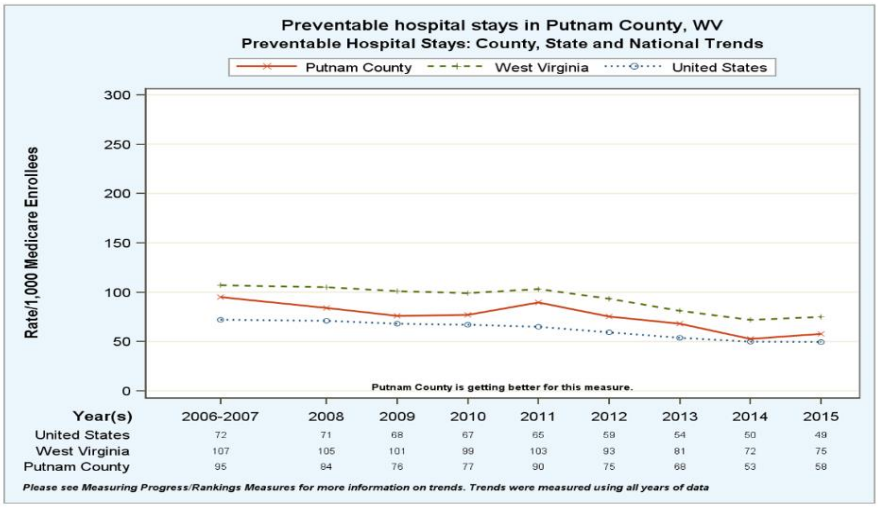
When individuals are hospitalized for health issues that could be treated in an outpatient setting, it is suggested that quality and/or access to health care services may be improved. In addition, this indicator is used to assess overuse of hospitals as a main source of care instead of establishing medical homes and stable primary care and supportive healthcare services in an ongoing manner to prevent such hospitalizations. Preventable Hospital Stays is the hospital discharge age-adjusted rate for ambulatory care-sensitive conditions per 1,000 fee-for-service Medicare enrollees. Conditions included in calculating this measure include what are known as 'ambulatory care-sensitive conditions' of angina (chest pain), asthma, bacterial pneumonia, cellulitis, chronic obstructive pulmonary disease, convulsions, dehydration, diabetes, heart failure, gastroenteritis, and kidney/urinary tract infections. Putnam County has seen a consistent decrease in 'preventable hospital stays' per 1,000 Medicare enrollees from a rate of 90 in 2011 to 53 in 2014, and a slight increase to a rate of 58 in 2015 (Table 8). While Putnam County remains well below the State rate consistently, the County also remains well above the most favorable U.S. rates for this measure. Of additional note with this measure related to access to care is that: 1) as it uses Medicare claims data, this limits the population which is evaluated to being primarily 65 years of age and older; and 2) does not appropriately reflect preventable hospitalizations associated with other conditions such as opioid use disorder. Given the significant opioid crisis that exists in West Virginia, with known associated hospitalizations due to secondary complications and sequalae related to opioid use disorder (i.e. wound infections, cardiac diseases, this is an important consideration. Finally, understanding and monitoring of the significant decrease in number of Medicare enrollees is noteworthy.

Table 8. Preventable Hospital Stays for 2011 to 2015 in Putnam County, West Virginia, and U.S.

| Year | Putnam County | Putnam # Medicare Enrollees | West Virginia | Top U.S. Performers |
|---|---|---|---|---|
| 2011 | 90 | 5,248 | 103 | 46 |
| 2012 | 75 | 5,340 | 93 | 41 |
| 2013 | 68 | 5,414 | 83 | 38 |
| 2014 | 53 | 5,515 | 72 | 36 |
| 2015 | 58 | 4,201 | 75 | 35 |

*Data Source: Dartmouth Atlas of Health Care*

Figure 12. Preventable Hospital Stays for 2011 to 2015 in Putnam County, West Virginia, and U.S.



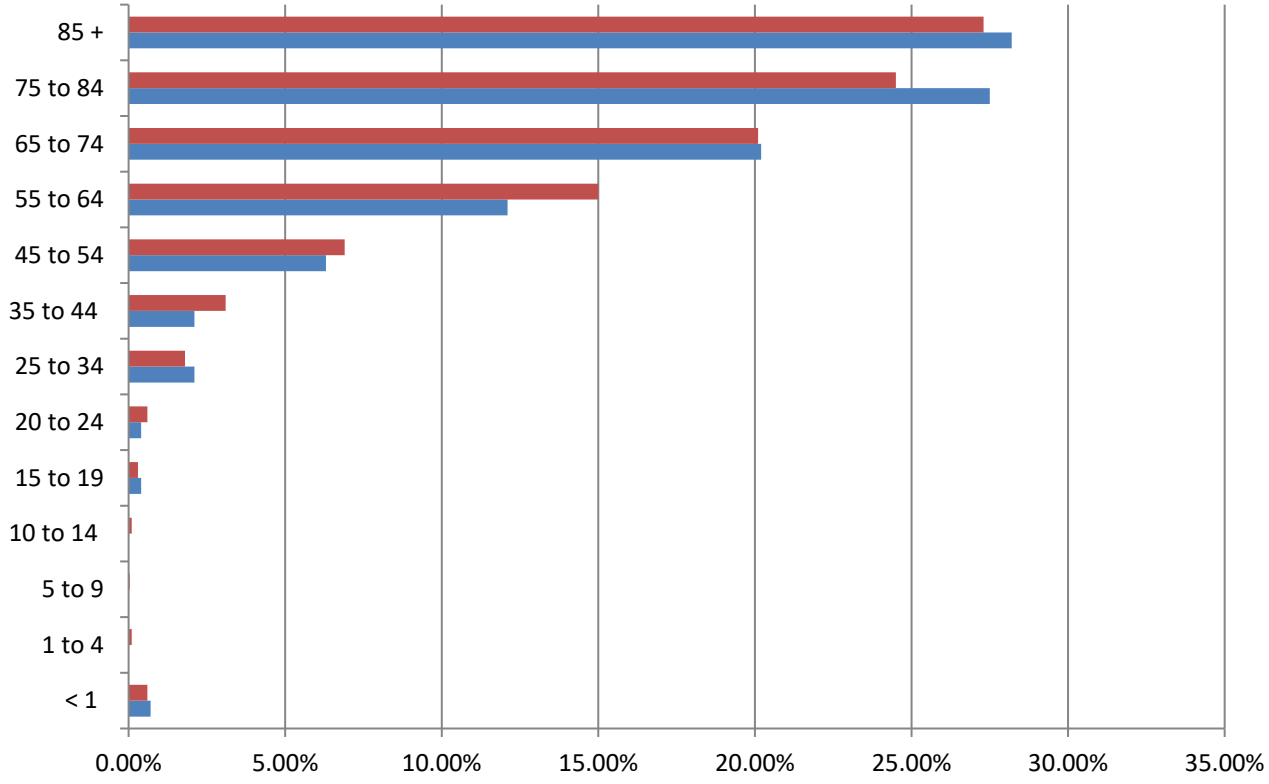

*Data Source: Dartmouth Atlas of Health Care*

## CAUSES OF DEATH

Much of the data in this section compares Putnam County's mortality rates to those for the state of West Virginia and the U.S. All data presented in this section, unless otherwise noted, is from the 2014 West Virginia Vital Statistics Report, representing the most recent data available. Unless otherwise noted, all mortality rates in this section are age-adjusted deaths per 100,000 people. Age-adjusted mortality rates provide rates of death while controlling for changes in the age distribution over time. Age-adjustment also affords comparison of death rates among communities with different age distributions.

This section details information related to deaths occurring in Putnam County in 2015. The percent of deaths occurring in Putnam County in 2015 were significantly higher for individuals age 75 and older as compared to West Virginia overall (a positive finding). More specifically, and significantly, 55.7% of all deaths in Putnam County in 2015 occurred in the age 75 and older age group, as compared to only 51.8% for West Virginia. The percentage of deaths is comparable between Putnam County and WV for 65-74 years. In almost all other groups the percentage of death is lower in Putnam County than West Virginia, except the age group of 25-34 year where it is slightly higher.

Figure 13. Percentage of deaths by age for Putnam County (blue) and West Virginia (red), 2015.




*Source: WV Vital Statistics Report*

## Ranked Causes of Death

Ranking the leading causes of death is one way of tracking those conditions that affect the population the most at any moment in time. Although cause-of-death is only one indicator of the health status of a given population, it is the most significant and severe indicator, and is therefore included in considering health priorities. Leading causes of death, and leading morbidities, vary by multiple factors, including age, race/ethnicity, gender, income, geographic location and access to healthcare resources.

The leading causes of death for Putnam County were examined and for 2015 were: (1) Malignant neoplasms, (2) Diseases of the Heart, (3) Accidents, (4) Dementia, (5) Chronic Lower Respiratory Disease, (6) Stroke, (7) Alzheimer's, (8) Influenza/Pneumonia, (9) Diabetes, and (10) Lung Disease Due to External Causes (Table 3). This 'order; for leading cause of deaths is comparable to that for West Virginia however it should be noted that the following rates for dementia, Alzheimer's and influenza/pneumonia are significantly higher in Putnam County than for WV.

Table 9. Top 10 Leading Causes of Death, Putnam County, West Virginia, and U.S., 2015

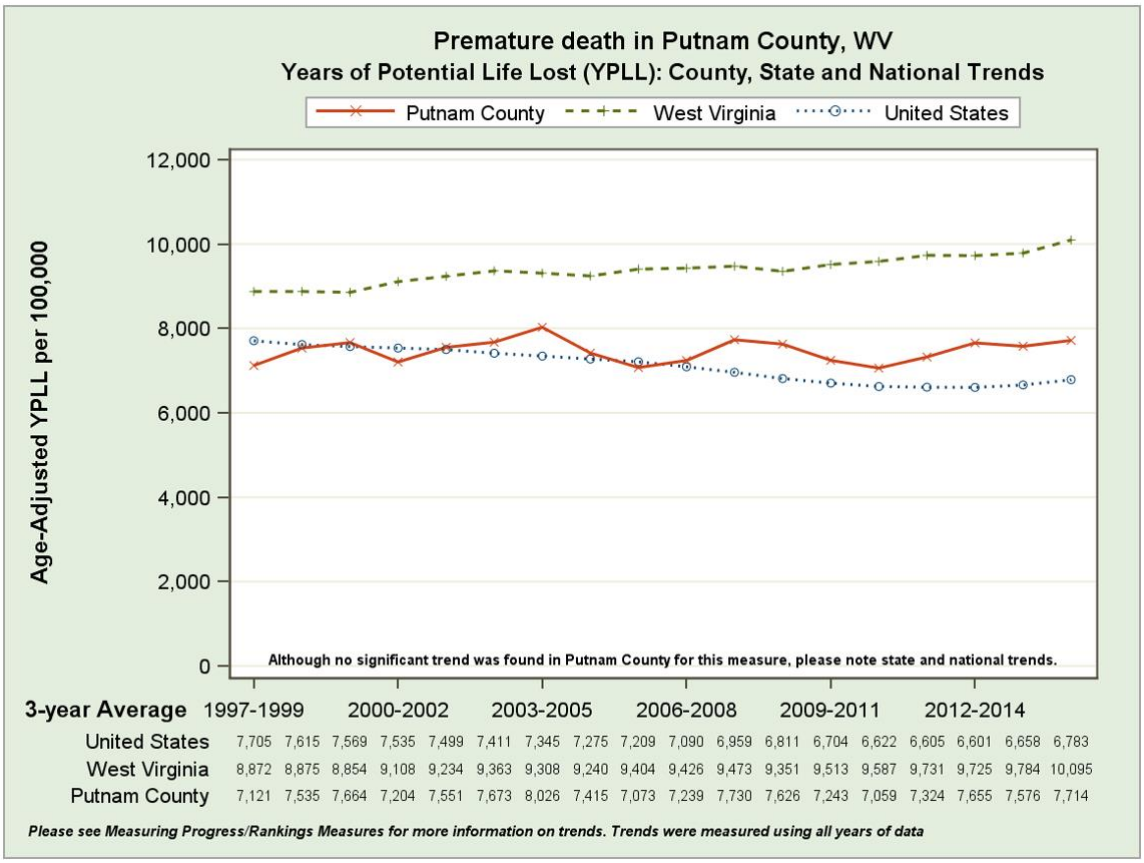
| Rank | Putnam County | | West Virginia | | U.S.* | |
|---|---|---|---|---|---|---|
| 1 | Malignant neoplasms | 218.1 | Malignant neoplasm | 261.3 | Diseases of the heart | 185.4 |
| 2 | Diseases of the heart | 179.4 | Diseases of the heart | 255.1 | Malignant neoplasms | 197.2 |
| 3 | Accidents | 75.6 | Chr. lower resp. dx | 88.1 | Chr. lower resp. dx | 48.2 |
| 4 | Dementia | 65.1 | Accidents | 82.3 | Stroke | 45.6 |
| 5 | Ch Lower Resp | 59.8 | Stroke | 58.0 | Accidents | 43.7 |
| 6 | Stoke | 58.0 | Dementia | 51.7 | Alzheimer's | 37.7 |
| 7 | Alzheimer's | 52.8 | Diabetes | 42.5 | Diabetes | 24.7 |
| 8 | Influenza/Pneu | 36.9 | Alzheimer's Disease | 40.0 | Influenza/Pneumonia | 34.4 |
| 9 | Diabetes | 24.6 | Influenza/Pneumonia | 28.4 | Nephritis/Nephrosis | 17.8 |
| 10 | Pneumoconiosis | 17.6 | Nephritis/Nephrosis | 27.5 | Septicemia | 15.5 |

*Source: 2015 West Virginia Vital Statistics Report*.
*Dementia not available for U.S.

## Life Expectancy. Average Age at Death, and Premature Death

Life expectancy is defined as the age from birth that individuals are expected to survive. Between 2000 and 2007, life expectancy in more than 80% of United States counties fell in standing against the average of the 10 nations with the best life expectancies in the world. In Putnam County, life expectancy for females is 77.4 years of age, which is comparable to the U.S. life expectancy rate of 77.9 years. The average age at death in Putnam County was 73.4 years in 2015 as compared to 72.2 years for West Virginia. Figure 14 depicts the Years of Potential Life Lost for Putnam County, WV, and the U.S.

Figure 14. Years of Potential Life Lost, Putnam County, WV, US, 1997.2014

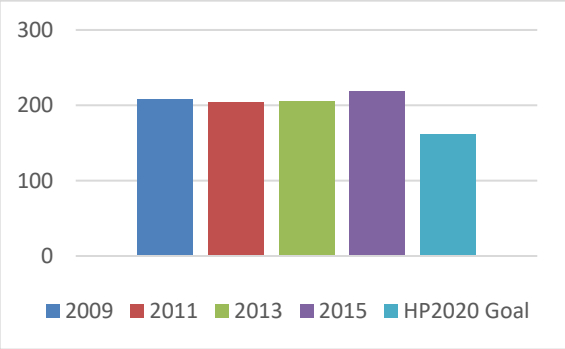



*Source: National Center for Health Statistics - Mortality Files*

## 1. Malignant Neoplasms (Cancers)

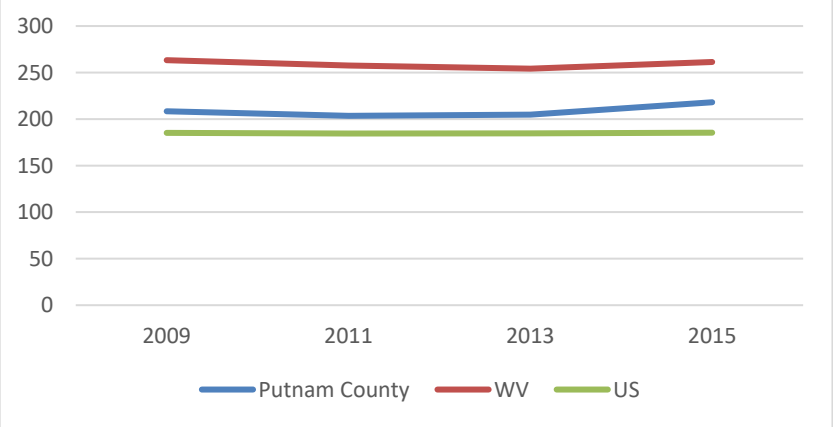
Cancer is now the leading cause of death in Putnam County and West Virginia, a change which occurred in 2013. Prior to this time diseases of the heart was the leading cause of death. Deaths due to cancer accounted for about 21% of deaths in the County as compared to 21.3% of deaths in the state and 22% in the U.S. in 2015. While the 5-year relative survival rate for cancer has improved, the mortality rate associated with cancer continues to increase. With an age-adjusted death rate of 218.1, Putnam County has a lower cancer mortality rate than West Virginia (261.3) but higher than the U.S. (185.4) (Figure 15). Death rates due to cancer have continually increased in Putnam County from 2009 (208.4) to 2015 (218.1). The most notable increase in the past ten years occurred between 2013 (204.8) and 2015 (218.1). **The overall age-adjusted rate of deaths due to cancer established by Healthy People 2020 as a goal for all counties is 161.4 per 100,000.** Cancers having the highest age-adjusted mortality rates in 2015 (reported in 2018) include (trachea, bronchus, lung rate (67.8), pancreas (32.4), colon (23.6), breast (17.7) and prostate (11.8).

Figure 15. Age-adjusted death rates due to cancer, 2009, 2011, 2013, 2015, and HP2020 Goal.




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 16. Age-adjusted death rates due to cancer, 2009, 2011, 2013, 2015, Putnam County, WV,

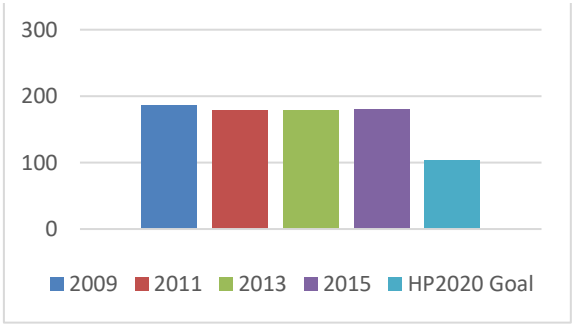



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 2. Diseases of the Heart

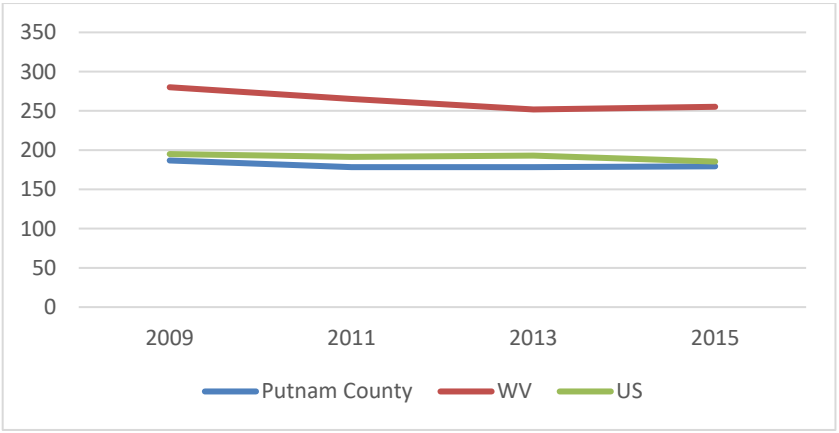
Heart disease, including ischemic heart disease, is the now the second leading cause of death for West Virginians, including residents of Putnam County; however, it remains the leading cause of death for Americans overall. The 2015 age-adjusted rate of death due to diseases of the heart in Putnam County of 179.4 is significantly lower than the rate for West Virginia (255.1) and similar to the U.S. (185.4). The rate of 179.4 is the lowest rate seen in Putnam County in the past ten years with a trend of continual slight decrease; however it has also remained relatively stable with a decrease only from 186.8 to 179.4 in the past decade. **The overall age-adjusted rate of deaths due to heart disease established by Healthy People 2020 as a goal for all counties is 103.4 per 100,000.**

Figure 17. Age-adjusted death rate due to diseases of the heart, 2009, 2011, 2013, 2015, HP2020 Goal.




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 18. Age adjusted death rates due to diseases of the heart, 2009, 2011, 2013, 2015, Putnam County, WV, US.

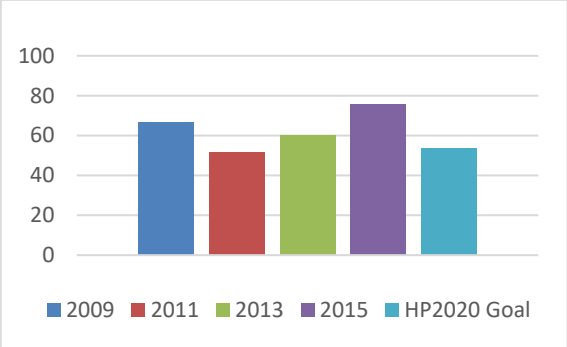



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 3. Accidents

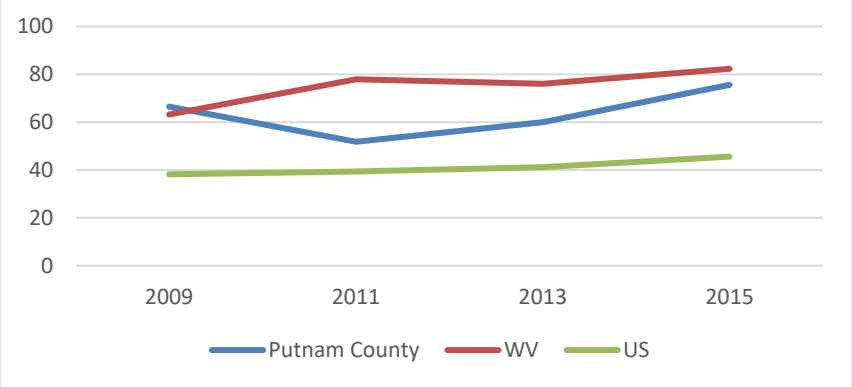
The mortality rate for accidents includes unintentional accidents that result in death, including but not limited to falls, poisoning, burns, firearm discharges, and drowning. Deaths due to accidents are the third leading cause of death in Putnam County as compared to being the fourth leading cause of death in WV and fifth leading cause of death in the U.S. Rates of death due to accidents have varied over the past ten years (Figure 19). The rate of 75.6 in 2015 is the highest rate in the past ten years and while it remains lower than the WV rate of 82.3 it remains much higher than the rate for the U.S. which in 2015 was 45.6 (Figure 20). **The overall age-adjusted rate of fatal injuries established by Healthy People 2020 as a goal for all counties is 53.7 per 100,000.**

Figure 19. Age-adjusted death rate due to accidents, Putnam County, 2009, 2011, 2013, 2015




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 20. Age adjusted death rate due to accidents, 2009, 2011, 2013, 2015, Putnam County, WV, U.S.

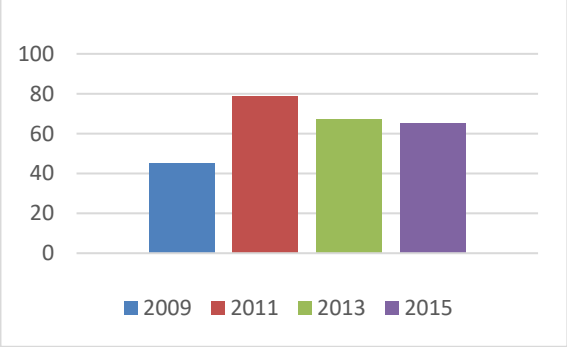



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 4. Dementia

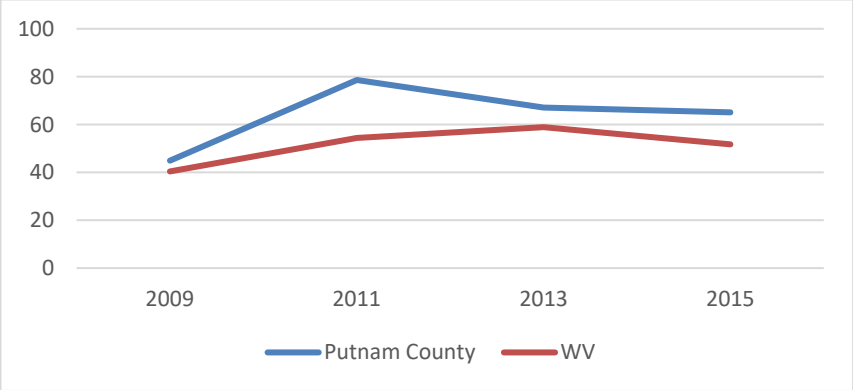
Dementia is a progressive and incurable disease characterized by memory loss and impaired intellectual functioning. Slowly, the symptoms result in an adult's inability to complete daily tasks of living and function independently. In 2015, dementia was the 4th leading cause of death in Putnam County. As demonstrated in Figure 21 below, the rate of deaths due to dementia increased significantly from 2009 (44.9) to 2011 (78.4). Rates for the past decade have been higher in Putnam County than in WV, and when report for the U.S. in 2015 are significantly higher in the county (Figure 22).

Figure 21. Age-adjusted death rate due to dementia, Putnam County, 2009, 2011, 2013, 2015.




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 22. Age adjusted dementia death rate, 2009, 2011, 2013, 2015, Putnam County, WV (dementia not in top ten for U.S. until 2015 and rate was reported to be 37.7 in 2015).

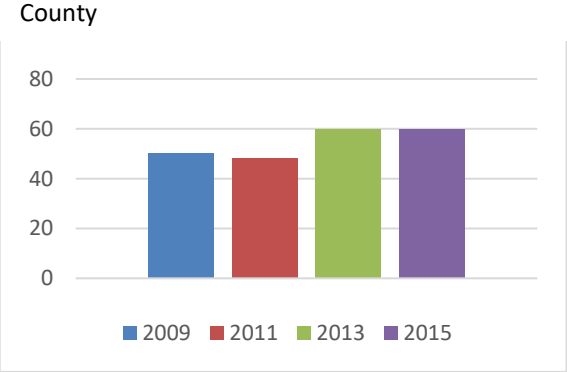



Source: WV Center for Health Statistics, s Vital Statistics Report

## 5. Chronic Lower Respiratory Disease

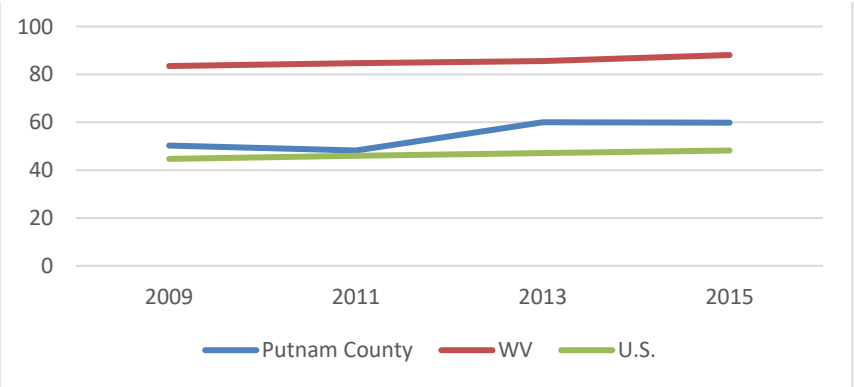
Chronic lower respiratory disease includes chronic bronchitis, asthma, emphysema, and other chronic lower respiratory diseases. Based on the 2015 WV Vital Statistics Report, deaths due to chronic lower respiratory disease in 2015 (59.8) have increased in the past three years. Overall, the 2015 rate in Putnam County is significantly lower than the rate in West Virginia, but since 2011 has been higher than the U.S. rate of 46 (Figure 24).

Figure 23. Age-adjusted death rate due to chronic lower respiratory disease, 2009, 2011, 2013, 2015, Putnam County




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 24. Adjusted chronic lower respiratory disease death rate, 2009, 2011, 2013, 2015, Putnam County, WV, US.

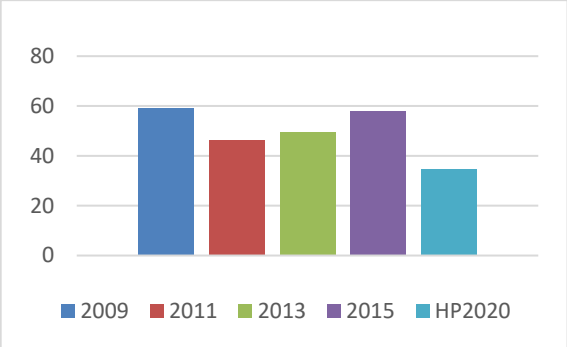



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 6. Stroke

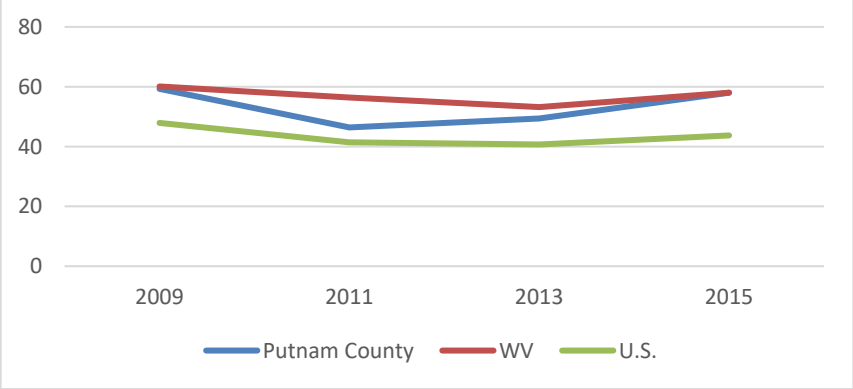
Over the past decade, Putnam County has seen a rate of deaths due to stroke ranging from 46.4 (2011) to 58.0 (2015) (Figure 25). The current rate of deaths due to stroke (2015) of 58.0 is equivalent to the state rate, but remains much higher than the rate for the U.S. of 43.7 (Figure 26). **The Healthy People 2020 goal is to reduce deaths due to stroke to a rate of 34.8 deaths per 100,000 population.**

Figure 25. Age-adjusted death rate due to stroke, 2009, 2011, 2013, 2015, Putnam County




*Source: WV Center for Health Statistics, Vital Statistics*

Figure 26. Adjusted stroke death rate, 2009, 2011, 2013, 2015, Putnam County, WV, US.

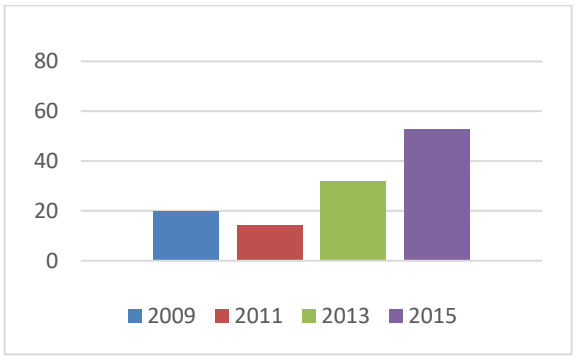



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 7. Alzheimer's

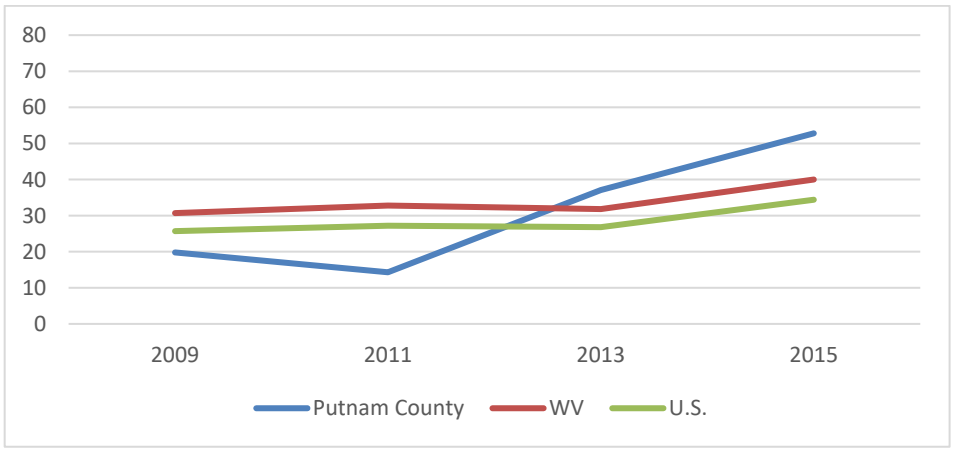
Alzheimer's disease is the most common form of dementia, accounting for the majority of all diagnosed cases and is reported separately from dementia as a cause of death in WV. In 2015, Alzheimer's disease was the 6th leading cause of death among adults aged 18 years and older based on death certificate data. The estimated total cost for health care, long-term care, and hospice for persons with Alzheimer's disease and other dementias is estimated to be $236 billion for 2016. Over the past decade, Putnam County has seen a rate of increase in deaths due to Alzheimer's from 19.8 in 2009 to 52.8 in 2015. Deaths due to Alzheimer's in Putnam County are significantly higher than the rate for WV or the U.S. This is the largest increase and change in causes of death in Putnam County in 2015.

Figure 27. Age-adjusted death rate due to stroke, 2009, 2011, 2013, 2015, Putnam County




*Source: WV Center for Health Statistics, Vital Statistics*

Figure 28. Adjusted stroke death rate, 2009, 2011, 2013, 2015, Putnam County, WV, US.

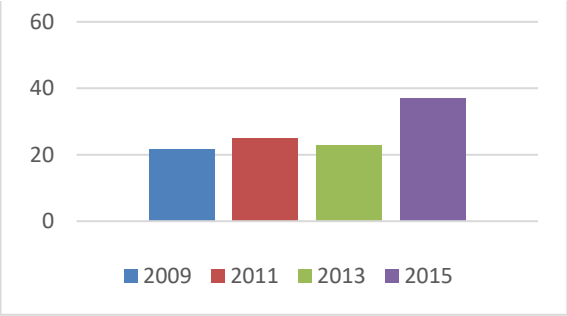



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 8. Influenza/Pneumonia

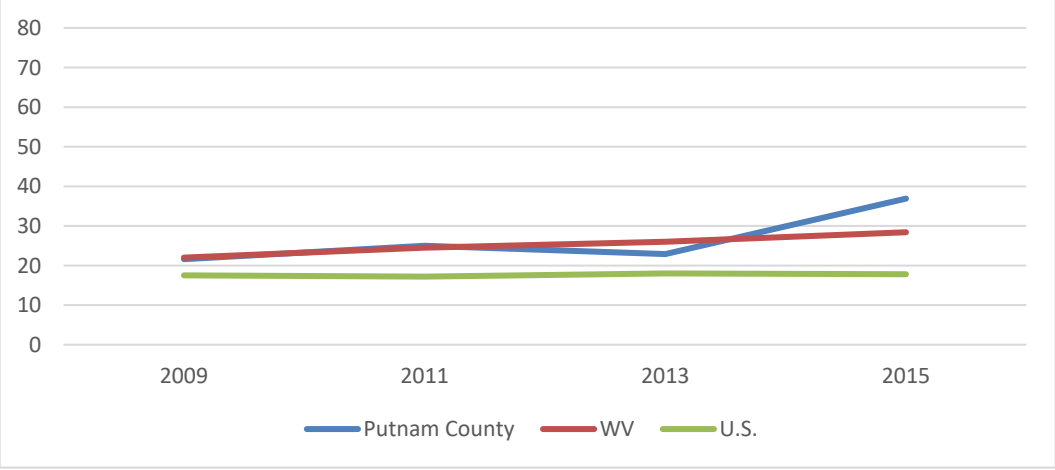
Influenza (also called 'flu') is a highly contagious viral infection of the respiratory passages causing fever, severe aching, etc. and often occurring in epidemics and cause serious complications such as pneumonia. Seasonal flu is a serious disease that causes illness, hospitalizations, and deaths every year in the United States. Seasonal influenza-related deaths are deaths that occur in people for whom seasonal influenza infection was likely a contributor to the cause of death, but not necessarily the primary cause of death. The CDC feels it is important to convey the full burden of seasonal flu to the public. In Putnam County, influenza/pneumonia is the eighth leading cause of death in 2015. Over the past ten years, rates of influenza/pneumonia have remained relatively stable until a reported increased rate to 36.9 in 2015. Rates for the state and U.S. have remained relatively stable over the past decade.

Figure 29. Age-adjusted death rate due to influenza/pneumonia, Putnam County, 2009, 2011, 2013, 2015.




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 30. Age adjusted death rate due to influenza/pneumonia, 2009, 2011, 2013, 2015, Putnam County, WV, U.S.

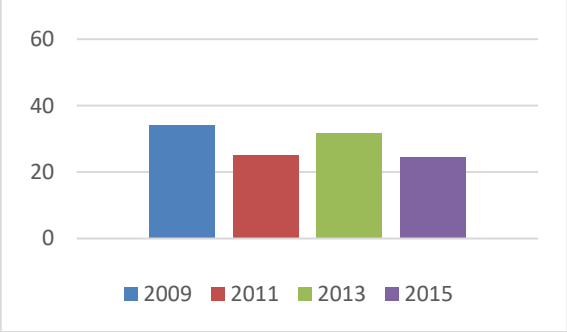



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 9. Diabetes

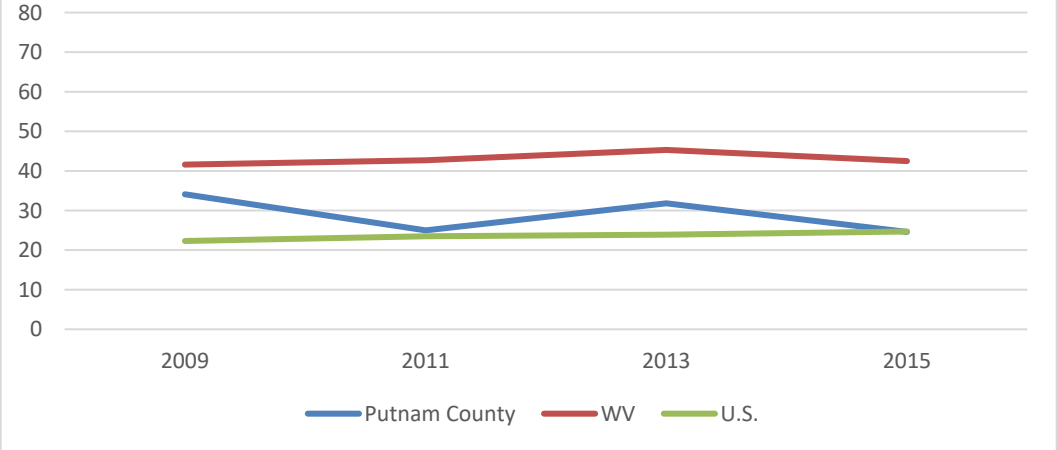
Diabetes is not only a risk factor for many other co-morbidities, physical complications, and illnesses, it is the 9th leading causes of death in Putnam County. Diabetes is a chronic illness marked by resistance to insulin, insulin deficits, or both, causing high blood sugar levels. The number of deaths due to diabetes in the U.S> has remained steady. In Putnam County, the rate of deaths due to diabetes fell in 2011 and has seen a greater degree of fluctuation until 2012, and a decreased noted from 2013 to 2015 (Figures 31 and 32).

Figure 31. Age-adjusted death rate due to diabetes, Putnam County, 2009, 2011, 2013, 2015.




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 32. Age adjusted diabetes disease death rate, 2009, 2011, 2013, 2015, Putnam County, WV, US.

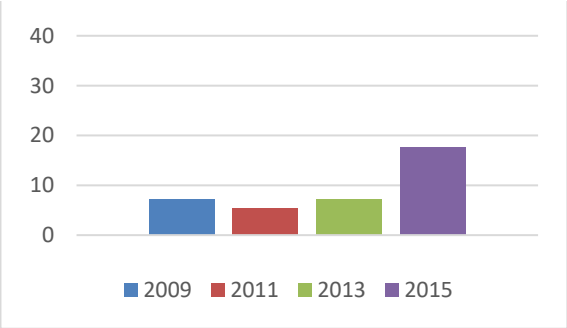



*Source: WV Center for Health Statistics, Vital Statistics Reports*

## 10. Lung Disease due to External Agents

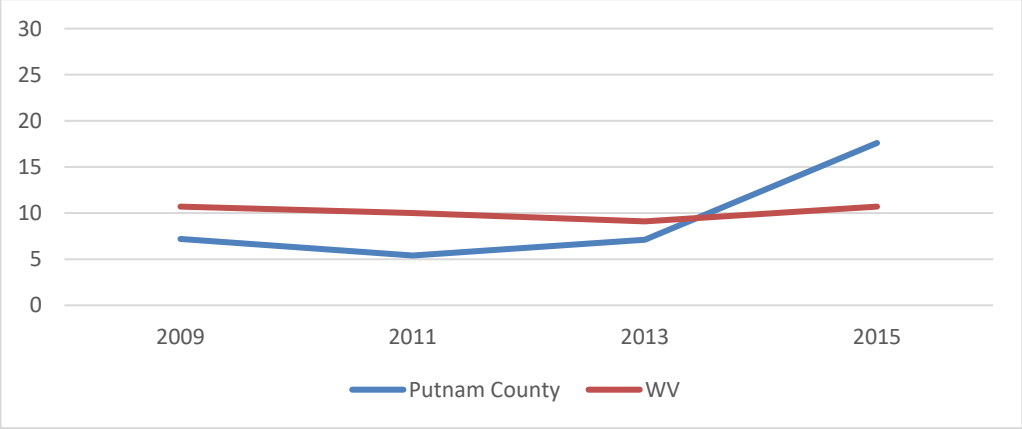
Over the past decade, Putnam County has seen the rate of deaths due to lung disease from external agents increase from 6.5 in 2014 to 17.6 in 2015 (Figure 33). The current rate of deaths due to stroke (2015) of 17.6 is significantly higher than the state rate (Figure 34). Deaths due to lung disease from external agents is currently in the top ten leading cause of deaths for Putnam County, however, does not appear in the top ten cuses of death for WV or the U.S.

Figure 33. Age-adjusted death rate due to lung disease from external agents, 2009, 2011, 2013, 2015,Putnam County




*Source: WV Center for Health Statistics, Vital Statistics Reports*

Figure 34. Age adjusted death rate due to lung disease from external agents, 2009, 2011, 2013, 2015, Putnam County, WV, US.




*Source: WV Center for Health Statistics, Vital Statistics Reports*

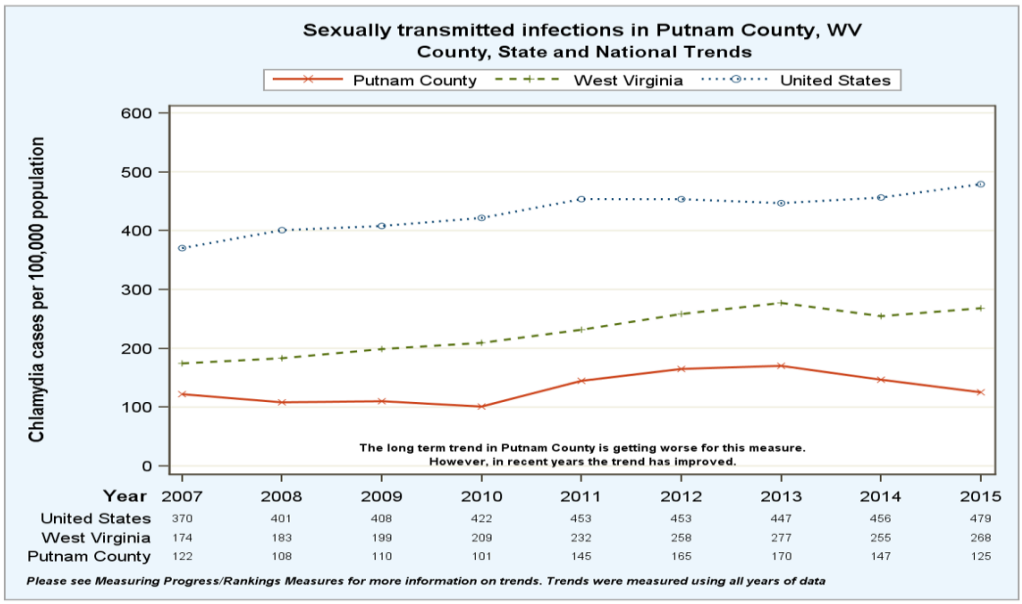
## COMMUNICABLE DISEASE

According to the CDC, the cost of sexually transmitted infections (STIs) to the U.S. health care system is estimated to be as much as $15.9 billion annually. Sexually transmitted diseases (STDs) that are left untreated can lead to serious long-term health consequences and are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, infertility, and premature death. The CDC estimates that undiagnosed and untreated STDs cause at a minimum, 24,000 women in the U.S. to become infertile. STIs also have a high economic burden on society. The direct medical costs of managing sexually transmitted infections and their complications in the US, for example, was approximately 15.6 billion dollars in 2008

### Chlamydia

Chlamydia is the most common bacterial STI in North America and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease, and chronic pelvic pain and is the most proliferous of the reportable sexually transmitted diseases (STDs) in West Virginia with 4,128 infections (222.8 population rate per 100,000) in 2017, showing a decrease of 12.4% from 4,718 cases (254.6 population rate per 100,000) in 2016. Chlamydia is seen most often among the 15 to 29 year-old age group which accounts for 70.1% (N=2,895) of all reported cases. The greatest disparity is seen among the African American race at 1,116.8 (N=705) by population rate per 100,000, followed by Native Hawaiian/Pacific Islanders with a population rate of 467.3 (N=2), while Caucasians make up the greatest percentage of cases at 64% (N=2,653). For the period of 2011 to 2015, chlamydia rates in Putnam County demonstrated an increase from 2011 to 2013 and then decreased increased in 2014 and 2015 to the lowest in the past five years (Figure 35).

Figure 35. Number of newly diagnosed chlamydia cases per 100,000 population, Putnam County, 2011-2015

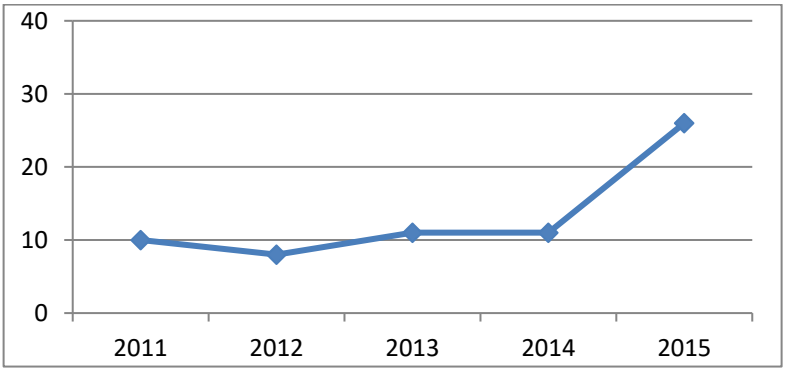



*Source: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention*

## Gonorrhea

Gonorrhea has the second highest incidence of STDs in West Virginia with 1,301 reported cases in 2017, an increase of 38.2% from 2016 (N=941). Gonorrhea infection is most prevalent among 15 to 29 year-old females (N=432, 33%) and 20 to 34 year-old-males (N=412, 32%). Disparity is greater among the African American race at 692.3 (N=437, 34%) by population rate per 100,000. Just like chlamydia, gonorrhea can cause infertility issues in women if left untreated. The number of cases of gonorrhea in Putnam County, for the period 2011 to 2015, ranged from 9 to 26 with a notable increase noted from 11 (2014 to 26 (2015) which was the 9th highest rate of all counties for that year (Figure 38).

Figure 36. Number of gonorrhea cases, Putnam County, 2011-2015

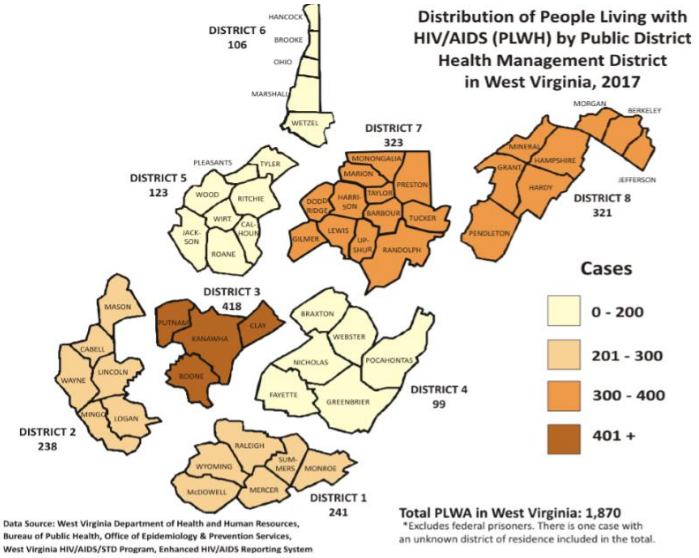



*Source: WV Center for Health Statistics, Vital*

## HIV/AIDS

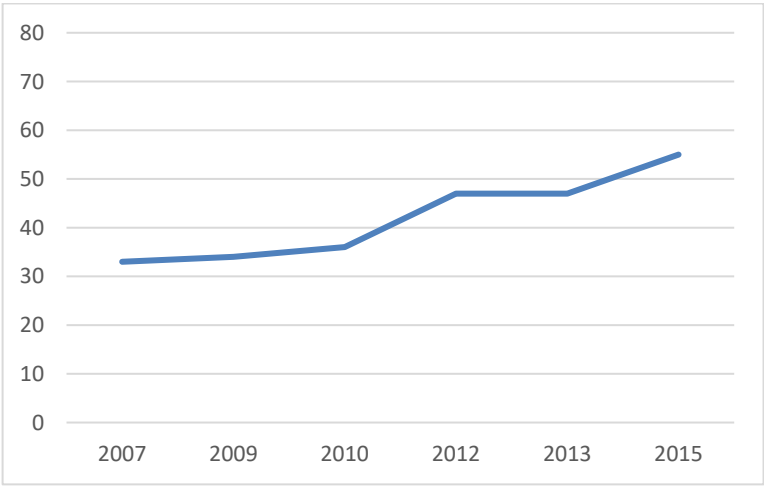
Below is the most recent data available from the West Virginia Bureau for Public Health by county, and depicting the prevalence of HIV/AIDS in Putnam County as of 2017. Given increasing rates of some other infectious diseases such as Hepatitis (not reported here), analysis of HIV/AIDS trends must continue to be evaluated in an ongoing manner. Among West Virginia counties, Putnam County is located in one of two regions with the next to the highest rates of HIV/AIDS (Figure 37). Based on data reported by the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, HIV prevalence rates at the county level for Putnam County from 2007 to 2015 have increased from a rate of 33 per 100,000 to 55 per 100,000, respectively.

Figure 37. HIV/AIDS prevalence by District, West Virginia, 2017.




*Source: WV Center for Health Statistics, Vital Statistics*

Figure 38. HIV prevalence rates for Putnam County, 2007-2015




*Source: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention*

## CHRONIC DISEASE PREVALENCE

Many chronic diseases examined as part of previous assessments have historically revealed prevalence rates lower in Putnam County than in West Virginia, but higher than U.S. rates. Each of the chronic disease risk factors, as identified in primary data collection as part of the West Virginia Behavioral Risk Factor Surveillance Survey (WV BRFSS), are presented below with the most current available data for 2011-2015 and reported in 2018 by the West Virginia Bureau for Public Health. The percentage of the population indicating a prevalence for arthritis, asthma, cancer, cardiovascular disease, depression, diabetes, hypertension, obesity, and obesity/overweight are notably lower than for West Virginia, higher than reported for the U.S. (Table 4).

Table 10. Chronic Disease Prevalence in Putnam County, WV, US, 2011-2015.

| Indicator (2011-2015) | Putnam County | WV County Ranking | West Virginia | United States |
|---|---|---|---|---|
| Arthritis | 35.5% | 40 | 39.0% | 24.7% |
| Asthma | 8.10% | 45 | 15.1% | 13.8% |
| Cancer | 12.8% | 39 | 14.1% | 11.3% |
| Cardiovascular Disease | 11.7% | 41 | 14.0% | 8.4% |
| Depression | 22.1% | 26 | 23.1% | 17.6% |
| Diabetes | 11.1% | 47 | 14.5% | 10.5% |
| Hypertension | 41.1% | 19 | 42.7% | 32.0% |
| Obese | 32.9% | 44 | 35.6% | 28.9% |
| Obese or Overweight | 72.0% | 18 | 71.1% | 64.6% |

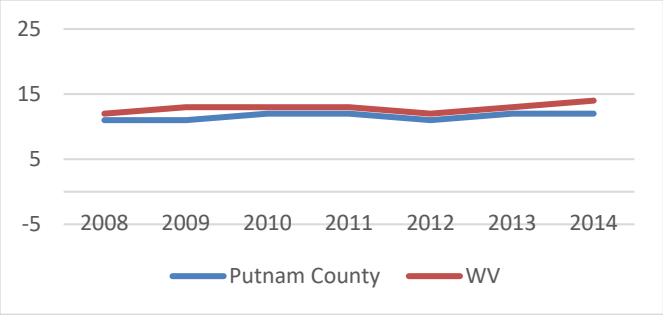
*Source: WV Center for Health Statistics, Vital Statistics*

## Adult Diabetes

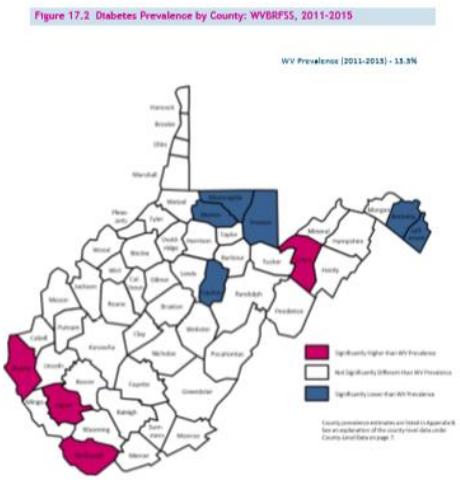
Diabetes affects an estimated 23.6 million people in the U.S. and is the 7th leading cause of death nationally. In Putnam County, diabetes is the 9th leading cause of death. Diabetes lowers life expectancy by up to 15 years and increases the risk of heart disease by 2 to 4 times. Diabetes is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness. In addition to these human costs, the estimated total financial cost of diabetes in the United States in 2007 was $174 billion, which includes the costs of medical care, disability, and premature death, and has only increased since. Diabetes prevalence is the prevalence of diagnosed diabetes in a given county. Respondents were considered to have diagnosed diabetes if they responded "yes" to the question, "Has a doctor ever told you that you have diabetes?" Women who indicated that they only had diabetes during pregnancy were not considered to have diabetes. In Putnam County, for 2009 to 2014 as part of the CDC Diabetes Interactive Atlas, the percentage of the population responding yes to the question “has a doctor, nurse, or other health professional ever told you that you have diabetes” has consistently been 11-12% since 2009 and has remained just below the state percentage of 12-14% (Figure 39).

Regular HbA1c monitoring among diabetic patients is considered the standard of care. It helps assess the management of diabetes over the long term by providing an estimate of how well a patient has managed his or her diabetes over the past two to three months. When hyperglycemia is addressed and controlled, complications from diabetes can be delayed or prevented. The County Health Rankings defined the ‘Diabetes Monitoring’ indicator as the percentage of diabetic fee-for-service Medicare patients ages 65-75 whose blood sugar control was monitored in the past year using a test of their glycated hemoglobin (HbA1c) levels. In Putnam County in 2014 (most recent data available) 84% received HbA1c monitoring, which is lower than 84% receiving monitoring in Putnam County which is similar to 84% for WV and much less than 91% which is reported by the top U.S. counties for this indicator.

Figure 39. Percentage of adults aged 20 and above with diagnosis of diabetes.




*Source: CDC Diabetes Interactive Atlas*

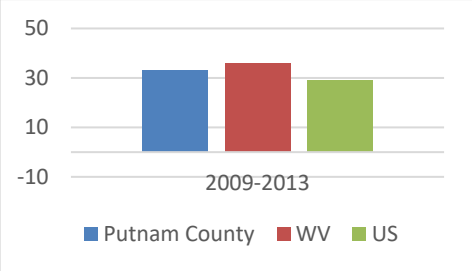



*Source: WV Center for Health Statistics, Vital Statistics*

## Adult Obesity

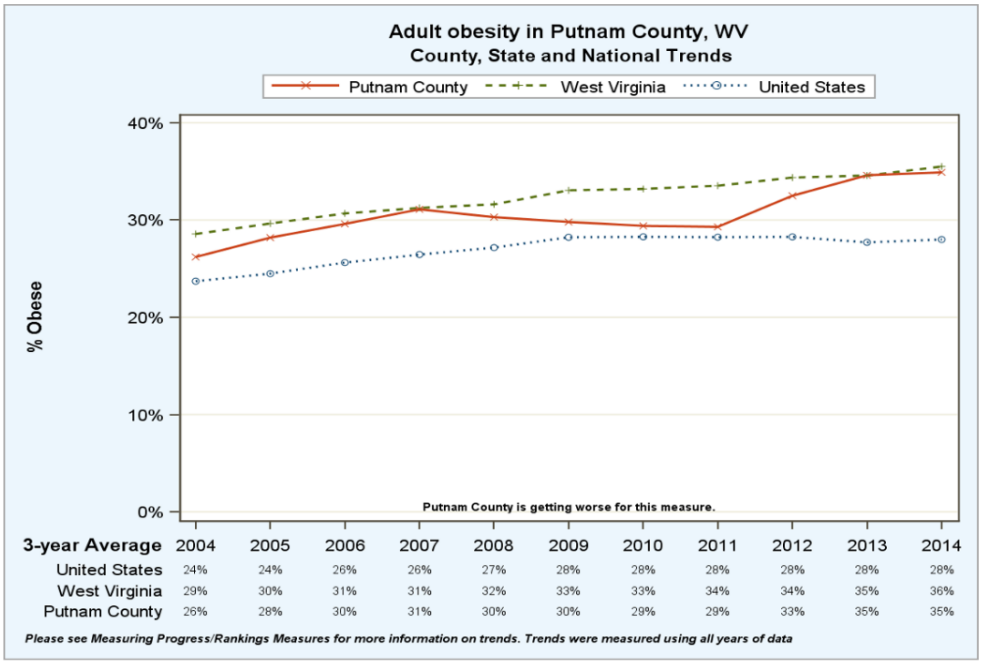
Obesity is often the result of an overall energy imbalance due to poor diet and limited physical activity. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis, and poor health status. According to the 2014 WV-BRFSS, for the combined years of 2011-2014, 32.9% of Putnam County residents indicated being obese, as compared to 35.6% for West Virginia and 28.9 for the U.S. (Figure 40). This indicator was also examined as part of the County Health Rankings where trends for 2004 to 2014 clearly demonstrate the increase in the percentage of the population reporting obesity over the past decade, most notably since 2011 (Figure 41).

Figure 40. Percent of adults reporting obesity, Putnam County, WV, US, 2009-2013.




*Source: WV Center for Health Statistics, Vital Statistics*

Figure 41. Adult obesity trends, 2003-2013, Putnam County, WV, U.S.

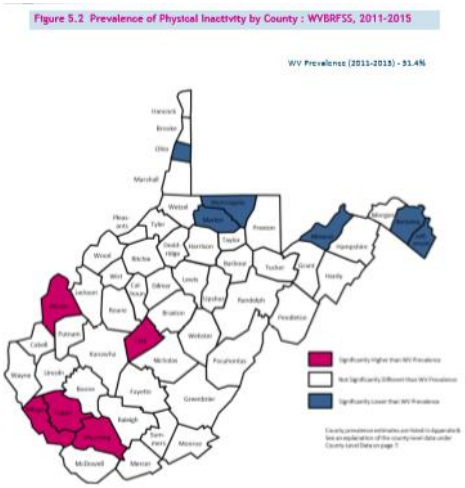



*Source: CDC Diabetes Interactive Atlas*

## Physical Inactivity

In general, more than 80 percent of adults do not meet the guidelines for both aerobic and muscle-strengthening activities. Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. The behavioral indicator of 'no leisure exercise' reflects responses obtained from the 2015 WV-BRFSS Report (released in 2018), where respondents were asked, 'during the past month, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise.' From the most recent WV-BRFSS report, for data representing 2011-2015, 27.8% of the population in Putnam County responded 'No' to this question. This is relatively consistent, but lower than, the overall state percentage of 31.4%.

Figure 42. Physical inactivity by county, 2011-2015.



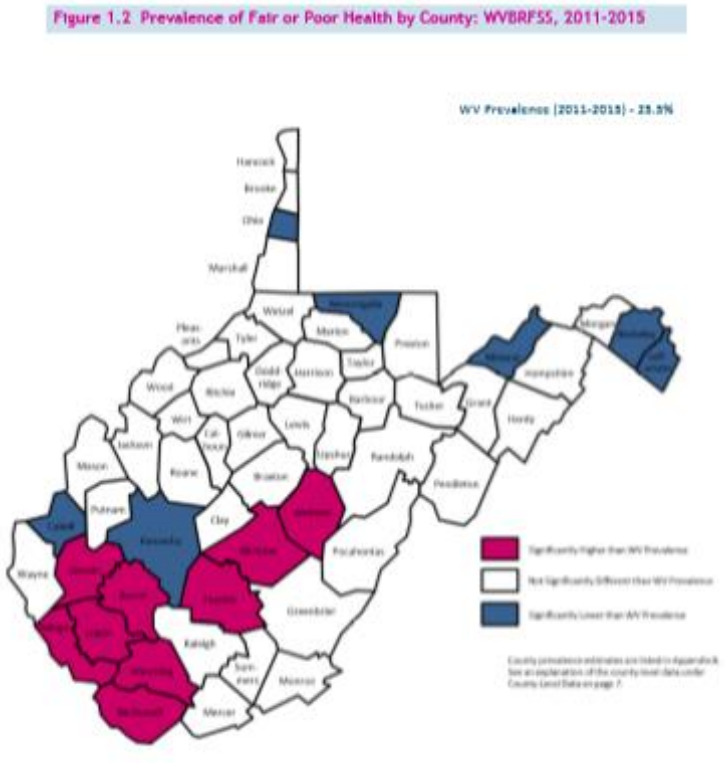

*Source: WV Center for Health Statistics, BRFSS*

## QUALITY OF LIFE AND MENTAL HEALTH

### Quality of Life

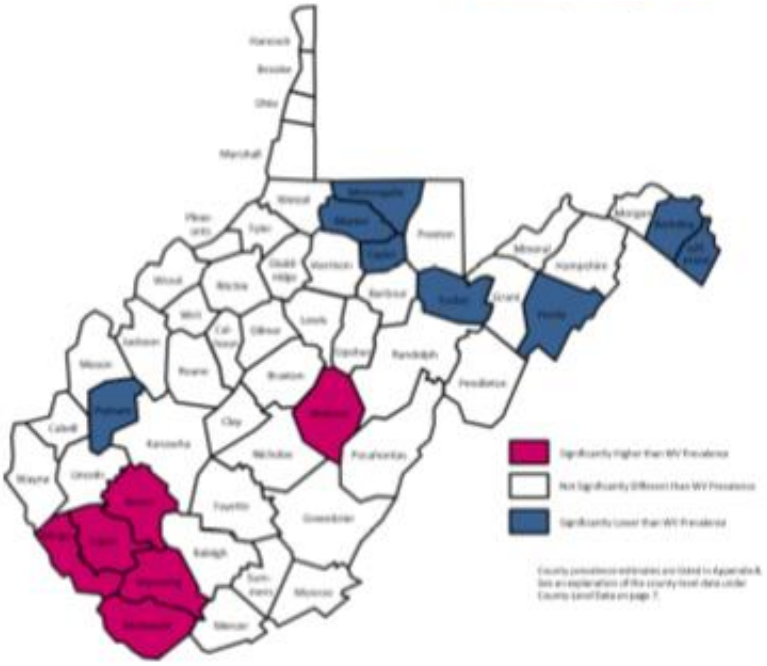
According to the CDC, health-related quality of life (HRQOL) measures of perceived physical and mental health and function have become an important component of health surveillance and are generally considered valid indicators of service needs and intervention outcomes. Self-assessed health status has also proven to be a more powerful predictor of mortality and morbidity than many objective measures of health. The CDC reports that the percentage of the population reporting their health to be poor or fair in Putnam County according to the 2015 BRFSS was 23.4% for the combined years of 2011 to 2015 (Figure 43). Close to one in every four adults in the County rate their health as fair or poor. In addition, the average number of reported mentally unhealthy days per month among adults in Putnam County was 4.9 days per month (Figure 44) according to the County Health Rankings and the average number of reported physically unhealthy days per month among adults in Putnam County was 4.5 days per among adults.

Figure 43. Percentage of adults reporting fair or poor health, age adjusted, 2014, WV.




*Source: WV Center for Health Statistics,* BRFSS

Figure 44. Percentage of adults reporting fair or poor metal health, age adjusted, 2011, 2015.

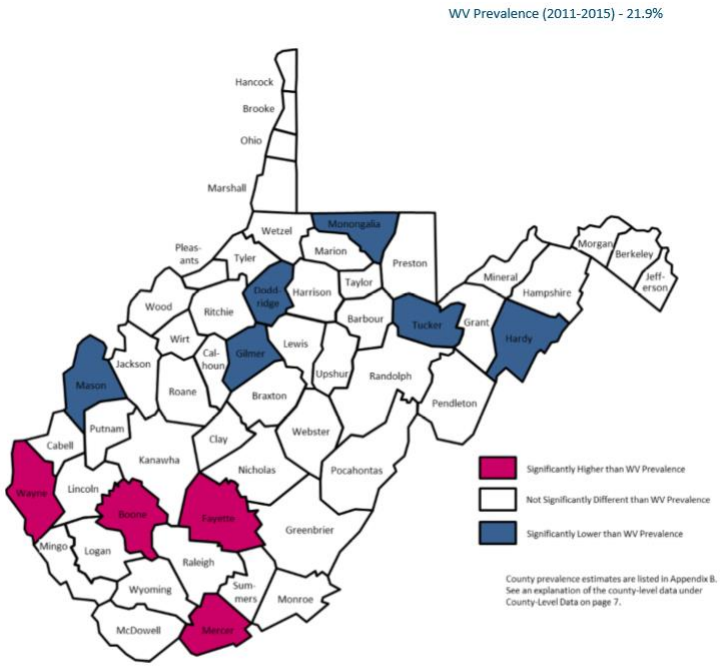


*Source: WV Center for Health Statistics,* BRFSS

## Mental Health

Depression is characterized by depressed or sad mood, diminished interest in activities which used to be pleasurable, weight gain or loss, psychomotor agitation or retardation, fatigue, inappropriate guilt, difficulties concentrating, as well as recurrent thoughts of death. But depression is more than a “bad day”; diagnostic criteria established by the American Psychiatric Association dictate that five or more of the above symptoms must be present for a continuous period of at least two weeks. As an illness, depression falls within the spectrum of affective disorders. In the 2015 BRFSS report published by the WV Bureau for Public Health, in Putnam County 22.1% of residents (as compared to 23.1% for WV) responded “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)?” (Figur3 45) In addition, according to the County Health Rankings, the percentage of individuals with ‘frequent mental distress’, defined as the percentage of adults reporting 14 or more days of poor mental health per month, was 14% in Putnam County in 2016.

Figure 45. Percentage of individuals responding they have ever been told they had depression, 2011-2015, Putnam County and WV. .




WV BRFSS 2015 Report

## MATERNAL CHILD HEALTH

Maternal child health outcomes can be improved only by first determining the current needs of the maternal child health population and then setting priorities as determined to be appropriate and based on the analysis of most recent available data. In Putnam County, maternal child health was assessed for the trimester prenatal care was started, use of tobacco and alcohol during pregnancy, teen birth rate, low birth weight, infant mortality, and PAP screening.

### Total Births and Low Birthweight

In 2015, there were a total of 601 births by county of residence for Putnam County, with birth rates remaining stable over the past five years (Figure 46). A total of 597 births occurred in the hospital setting. About 0.4% of infants were born to mothers who were less than 18 years of age Of births in 2015, 9.3% (nearly one of every ten) of newborns were low birthweight compared to 9.6% in West Virginia and 8.0% in the U.S. Low birthweight is defined as infants born less than 2,500 grams, or 5 pounds 8 ounces. Infant mortality rates for the years 2006-2010 and 2011-2015 are depicted in the maps below (Figure 47)..

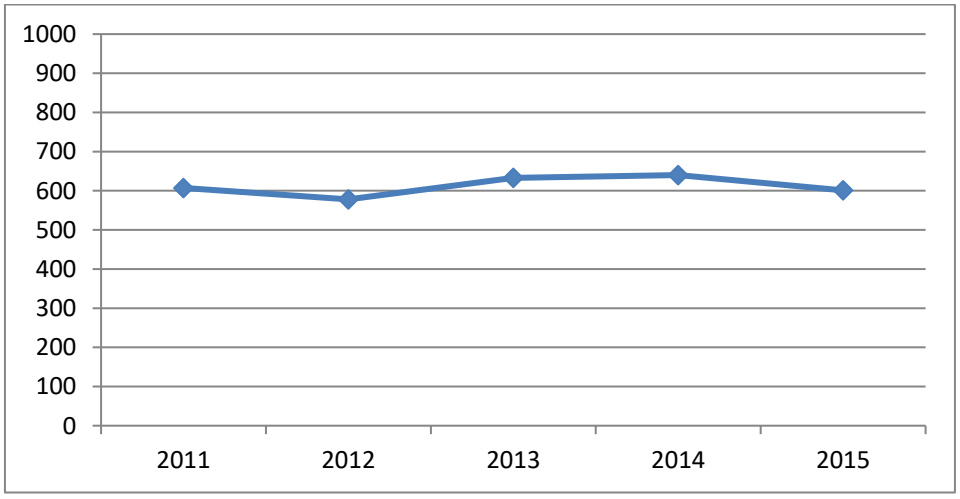
### Prenatal Care

Prenatal care, especially care beginning in the first trimester, allows health care providers to identify and manage a woman's risk factors and health conditions and to provide expectant parents with relevant health care advice. Based on most recent data from the 2015 West Virginia Vital Statistics Report, the initiation of prenatal care in the first trimester in Putnam County was 86.2%. In addition, 9,7%, or about 1 in every 10 women who become pregnant, did not seek care until the second trimester as compared to 17% in West Virginia. About 3.2% of women did not seek care until their third trimester as compared to 4.7% in West Virginia, and 0.9% received no prenatal care during pregnancy.

### Maternal Behaviors during Pregnancy

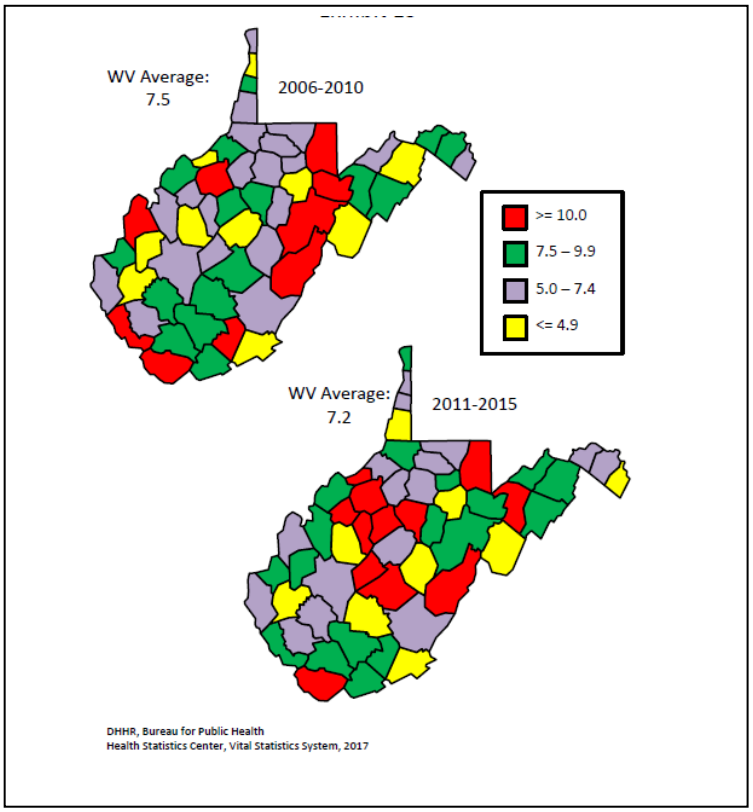
Maternal behaviors during pregnancy also influence health outcomes of infants. In Putnam County in 2015, 14.0%, of women, used tobacco during pregnancy, which is the lowest reported percentage in the state. Of significance, however, is that the smoking rate among pregnant women in the U.S. in 2014 was only 8.4%. **The Healthy People 2020 goal for smoking during pregnancy is 14.4% and Putnam County is meeting this goal.** Maternal drug use during pregnancy among pregnant women in Putnam County was 7.2% in 2015, much lower than the State reported percentage of 39.2%.

Figure 46. Number births by year in Putnam County, 2011-2015.




*Source: West Virginia Center for Health Statistics, Vital Statistics Reports*

Figure 47. Infant mortality rates, Putnam County, WV 2011-2015.




*Source: West Virginia Center for Health Statistics, Vital Statistics Reports*

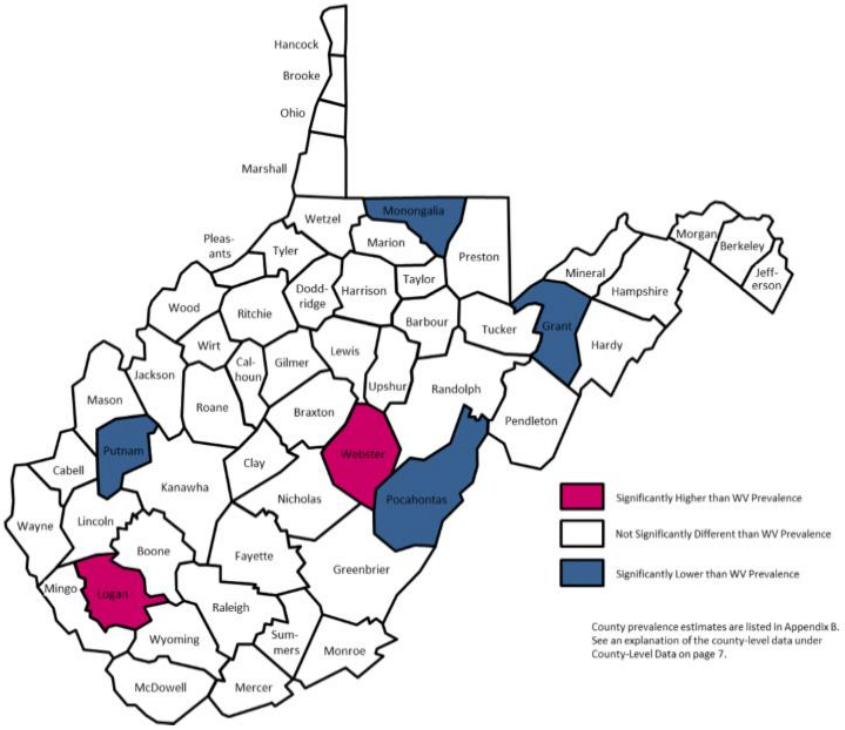
## ADDICTION

According to a recent 2015 report released by the Institute of Medicine, 'addiction', defined as misuse and/or abuse of nicotine, alcohol, and other drugs, is a prevalent and rapidly growing public health issue in many states in the U.S. It is estimated that each year, substance abuse and addiction costs in the U.S are greater than $500 billion. Subsequently, this community health assessment establishes a new section of the report focused solely on addiction in Putnam County in order to better understand the magnitude and scope of the issues around addictive behaviors, specifically tobacco use, alcohol dependence/misuse, and drug dependence/illicit use. It is anticipated that this section will continue to grow as more data is available at the county level.

### Tobacco Use

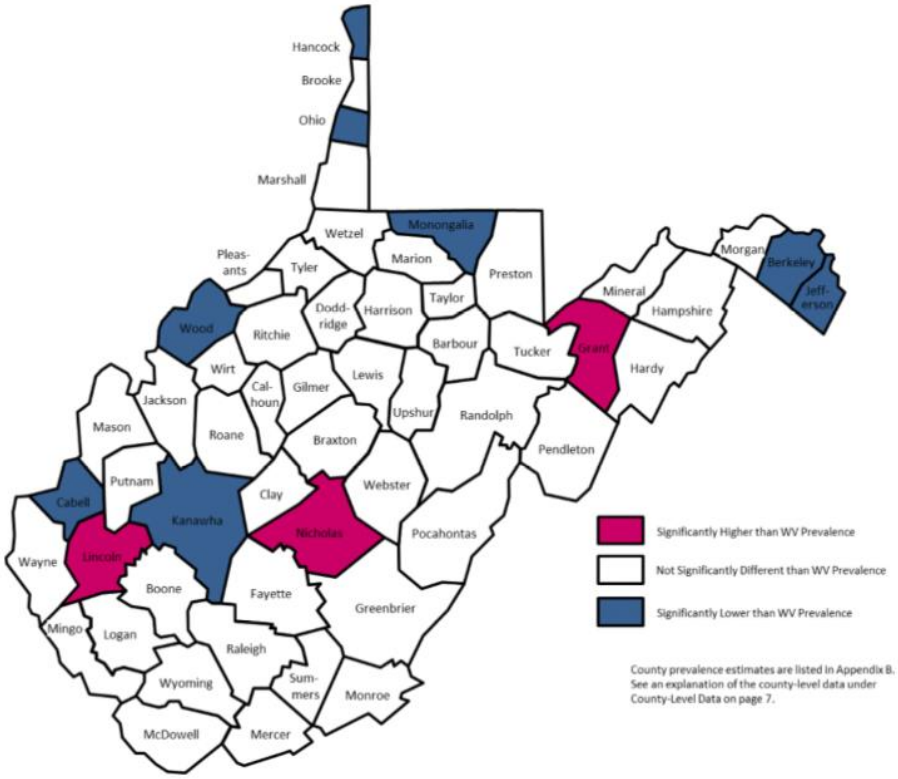
Most recent trends in tobacco use for Putnam County depict a tobacco use rate of 18.0% for the year 2016, lower than the rate of 25.0% in West Virginia (Figure 48). A map for the first time depicting smokeless tobacco by county is also provided (Figure 49). **The Health People 2020 goal for smoking among adults in the U.S. is 12.0%**.

Figure 48. Tobacco use percent by county, WV, 2011-2015.




*WV BRFSS 2015 Report*

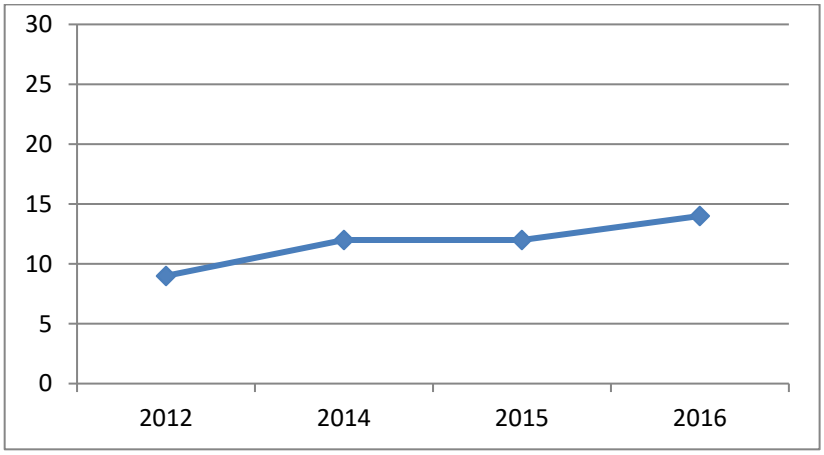
Figure 49. Smokeless tobacco use by county, WV, 2011-2015.



**Excessive Drinking**

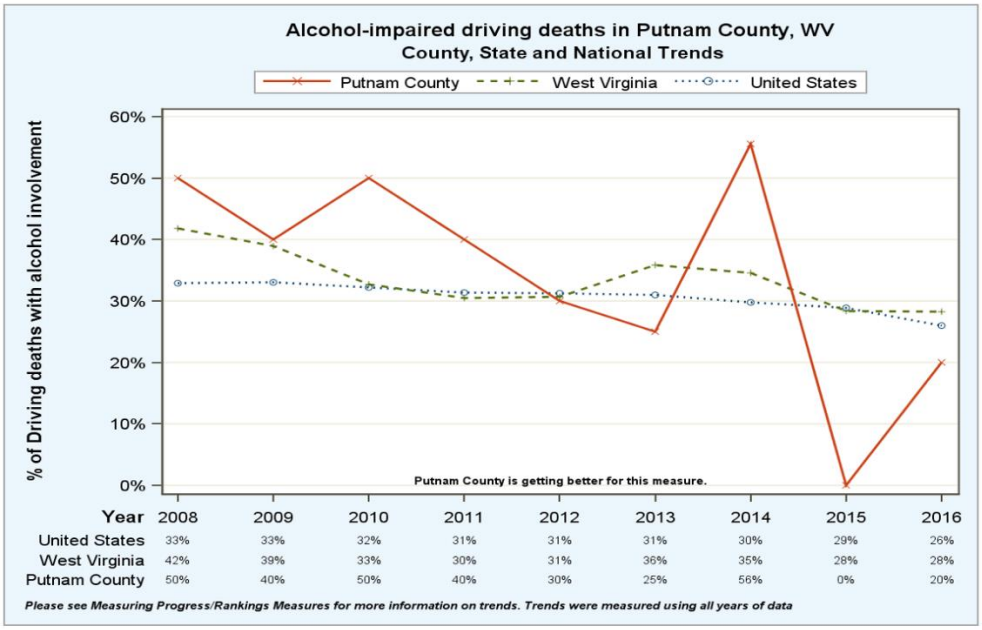
Excessive drinking is a risk factor for a number of adverse health outcomes, such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes. Approximately 80,000 deaths are attributed annually to excessive drinking. Excessive drinking is the third leading lifestyle-related cause of death in the United States. Excessive Drinking is the percentage of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average. The percentage of adults reporting excessive drinking has increased in Putnam County for the period 2012-2016 from 9% to 14% (Figure 50).

**Figure 50**. Excessive drinking among adults, Putnam County, 2012-2016




*Behavioral Risk Factor Surveillance System, 2015*

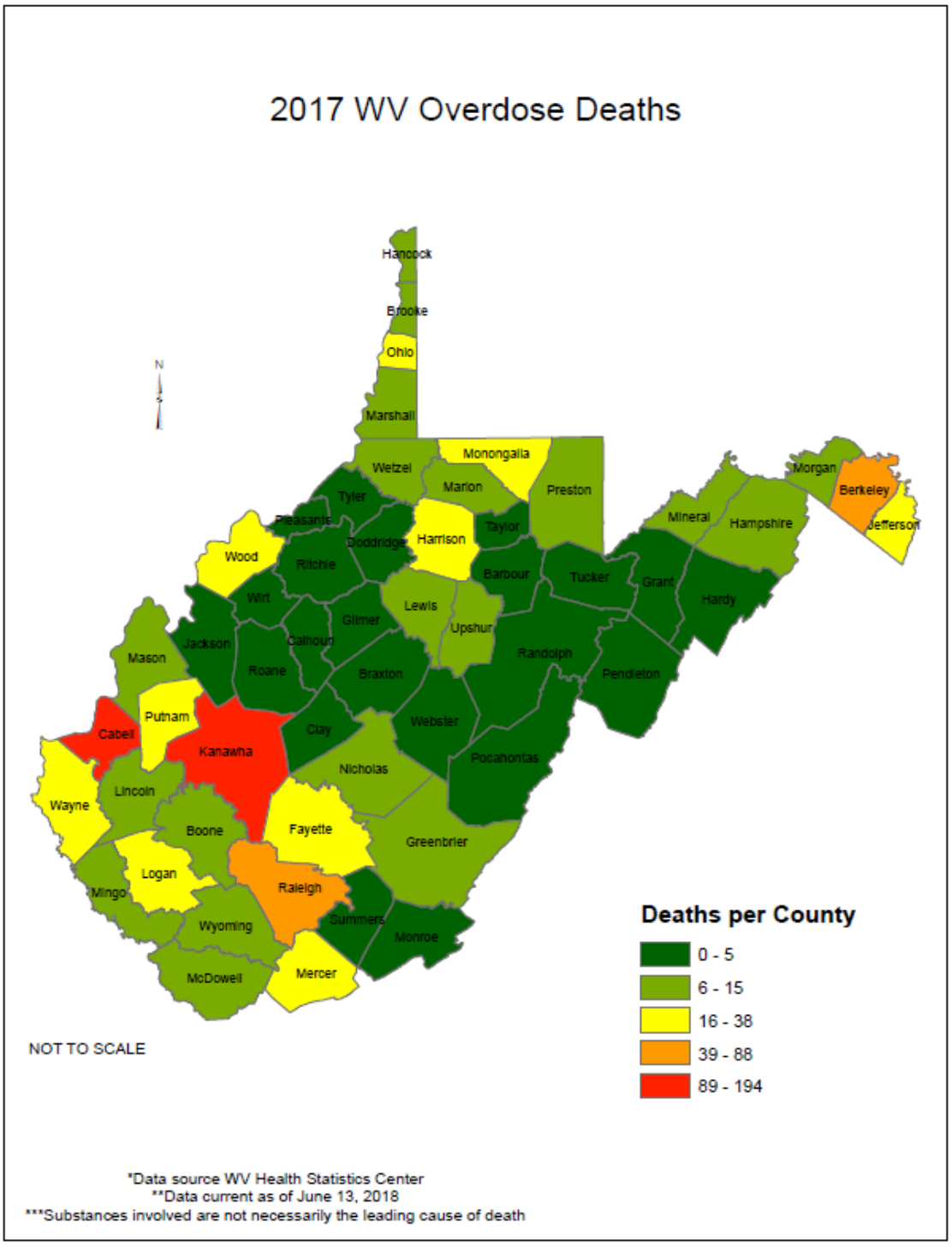
Figure 51. Alcohol impaired driving deaths in Putnam County, WV, US, 2006-2016

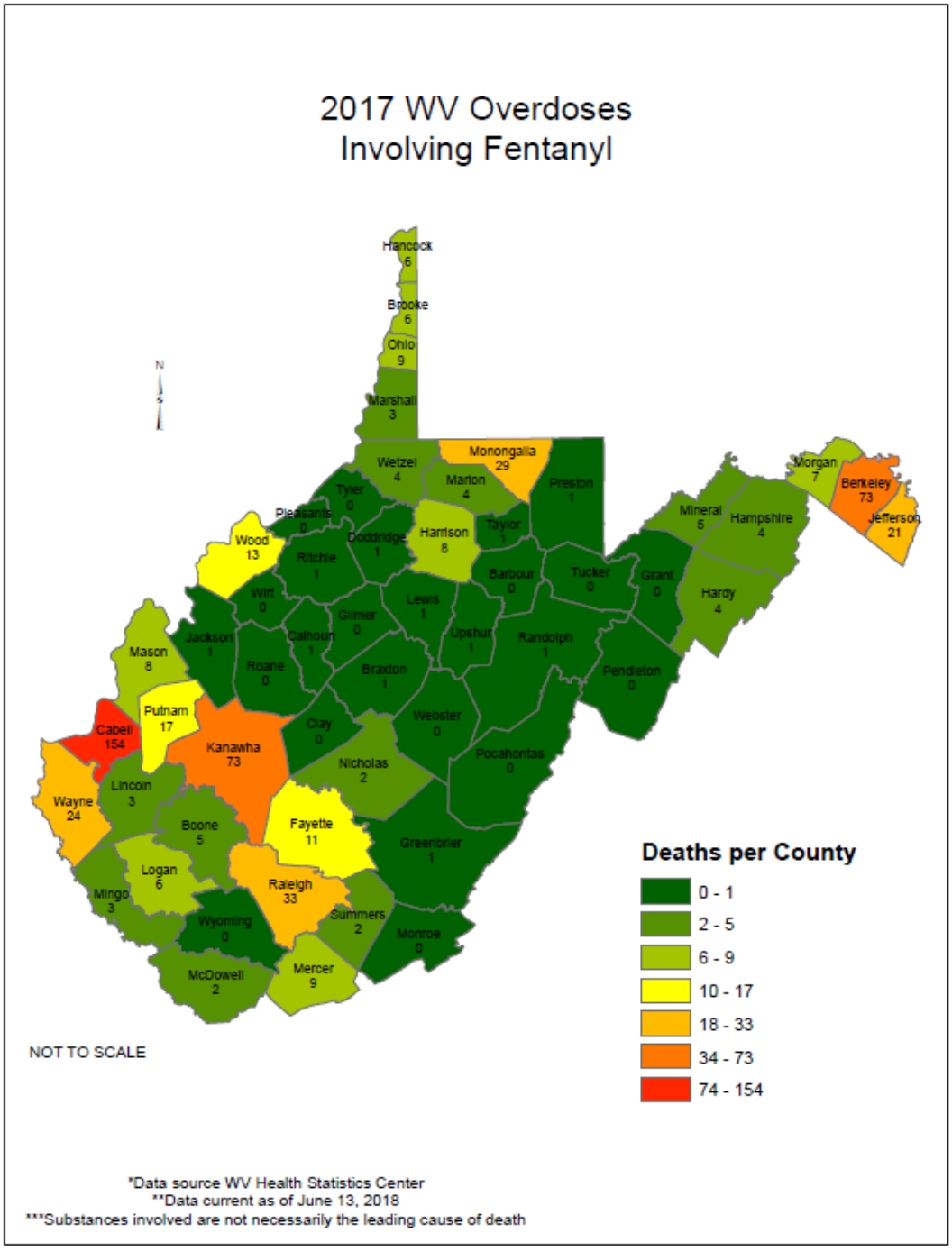


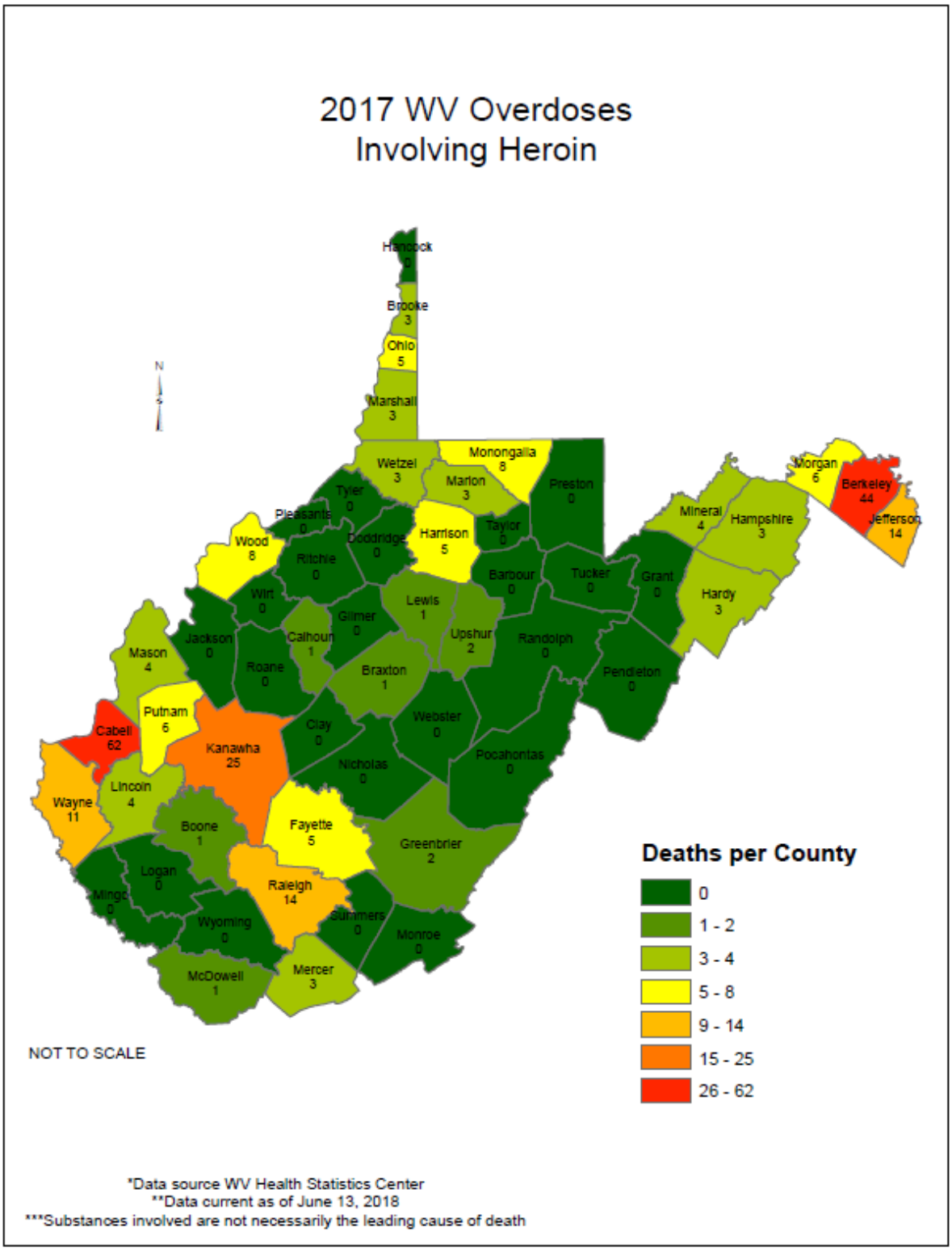

Fatality Analysis Reporting System

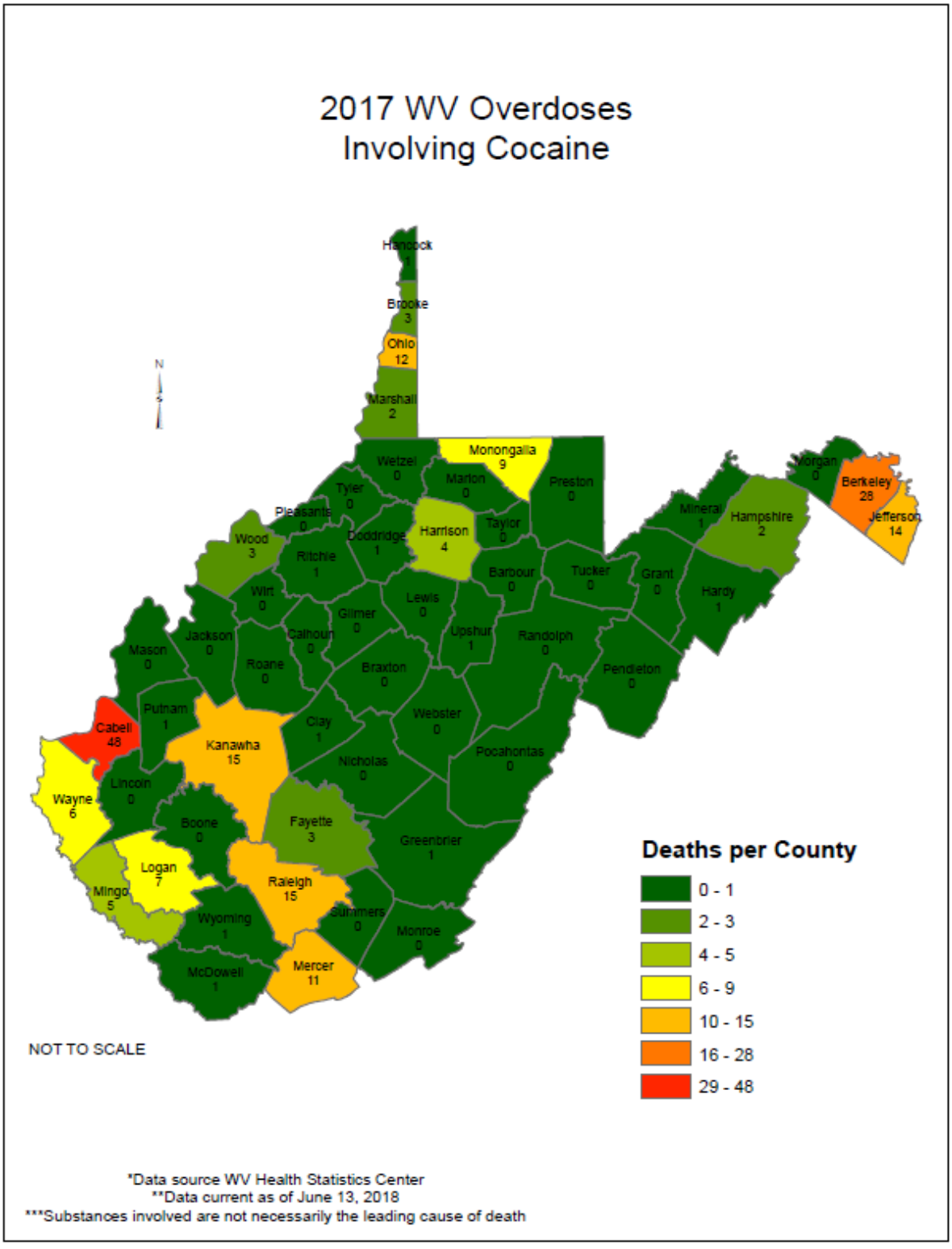
**Illicit Drug Use**

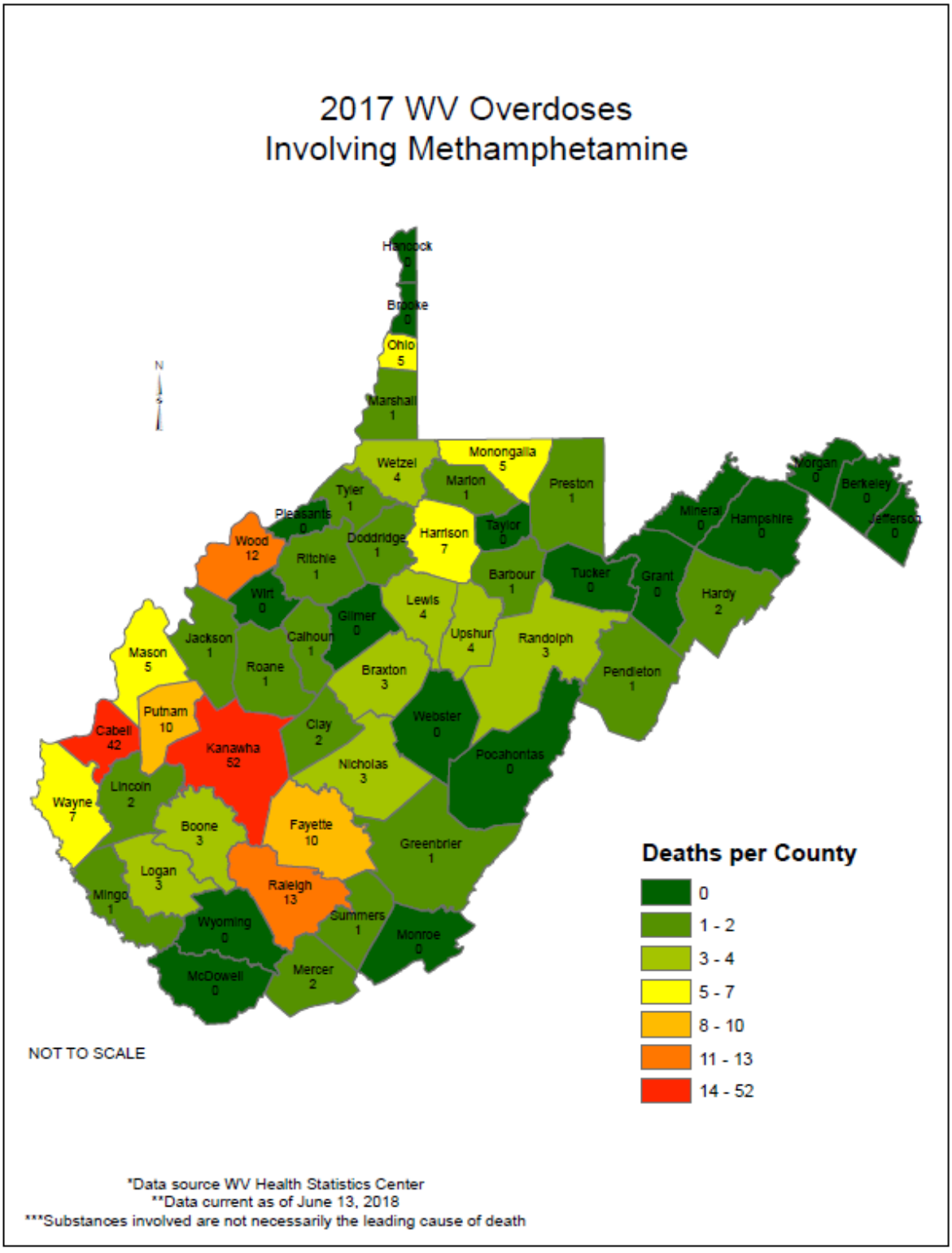
The following maps released by HIDTA in late 2018 depict the most current information available to understand this issue. Based on this data additional information will be added to this report.

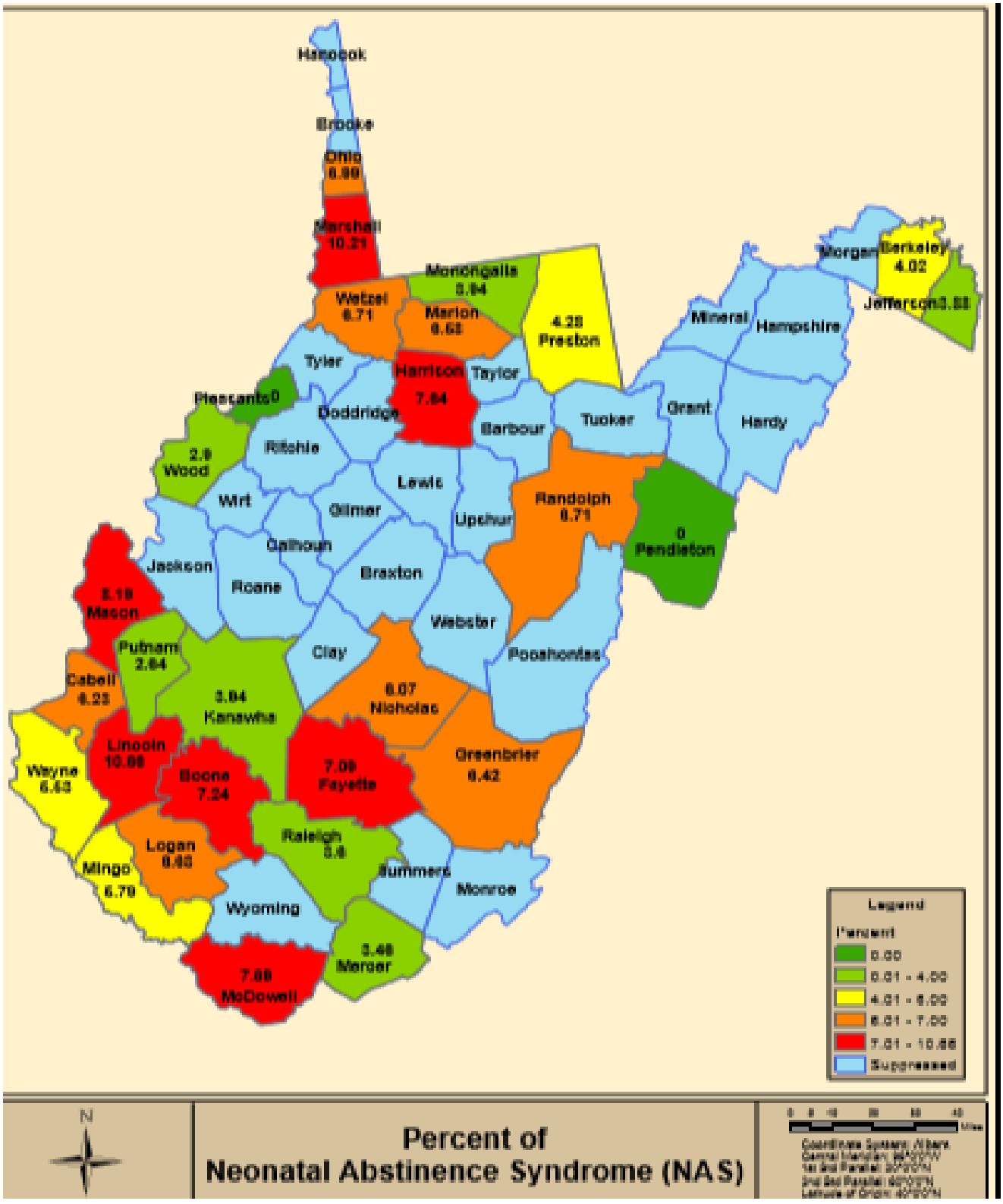


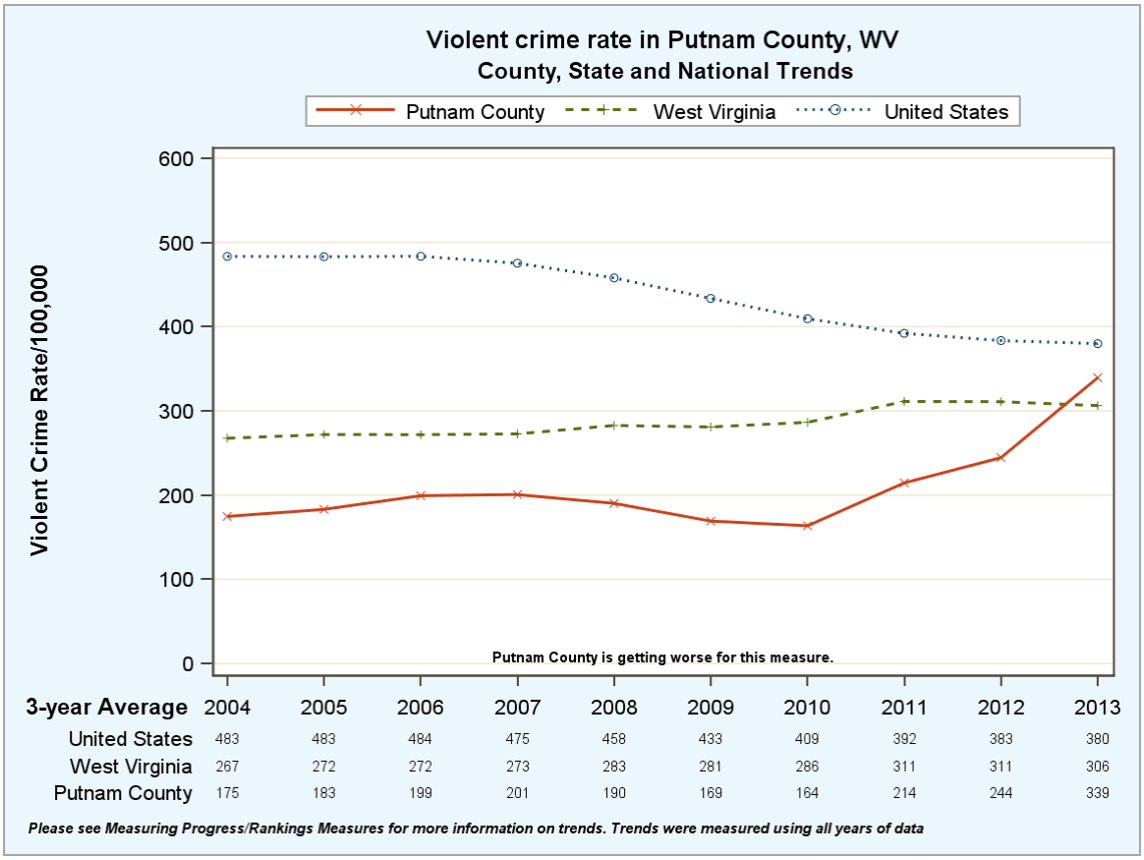

2017 WV Overdoses
Involving Fentanyl
Hancock 6
Brooke 6
Ohio 9
Marshall 3
Wetzel 4
Monongalia 29
Marion 4
Preston 1
Tyler 0
Pleasants 0
Wood 13
Ritchie 1
Doddridge 1
Harrison 8
Taylor 1
Barbour 0
Tucker 0
Lewis 1
Upshur 1
Randolph 1
Webster 0
Pocahontas 0
Gilmer 0
Calhoun 1
Braxton 1
Roane 0
Jackson 1
Mason 8
Putnam 17
Cabell 154
Kanawha 73
Clay 0
Nicholas 2
Fayette 11
Greenbrier 1
Wayne 24
Lincoln 3
Boone 5
Logan 6
Mingo 3
Raleigh 33
Wyoming 0
Summers 2
Monroe 0
McDowell 2
Mercer 9
Pendleton 0
Grant 0
Hardy 4
Mineral 5
Hampshire 4
Morgan 7
Berkeley 73
Jefferson 21
N
NOT TO SCALE
Deaths per County
0 - 1
2 - 5
6 - 9
10 - 17
18 - 33
34 - 73
74 - 154
*Data source WV Health Statistics Center
**Data current as of June 13, 2018
***Substances involved are not necessarily the leading cause of death


2017 WV Overdoses
Involving Heroin
Hancock 0
Brooke 3
Ohio 5
Marshall 3
Wetzel 3
Monongalia 8
Marion 3
Preston 0
Tyler 0
Pleasants 0
Wood 8
Doddridge 0
Harrison 5
Taylor 0
Ritchie 0
Barbour 0
Tucker 0
Wirt 0
Gilmer 0
Lewis 1
Upshur 2
Randolph 0
Jackson 0
Calhoun 1
Roane 0
Braxton 1
Mason 4
Putnam 6
Cabell 62
Kanawha 25
Clay 0
Webster 0
Pocahontas 0
Nicholas 0
Lincoln 4
Wayne 11
Boone 1
Fayette 5
Greenbrier 2
Logan 0
Raleigh 14
Mingo 0
Wyoming 0
Summers 0
Monroe 0
McDowell 1
Mercer 3
Pendleton 0
Grant 0
Hardy 3
Mineral 4
Hampshire 3
Morgan 6
Berkeley 44
Jefferson 14
N
NOT TO SCALE
Deaths per County
0
1 - 2
3 - 4
5 - 8
9 - 14
15 - 25
26 - 62
*Data source WV Health Statistics Center
**Data current as of June 13, 2018
***Substances involved are not necessarily the leading cause of death


2017 WV Overdoses
Involving Cocaine
N
Hancock 1
Brooke 3
Ohio 12
Marshall 2
Wetzel 0
Monongalia 9
Marion 0
Preston 0
Tyler 0
Pleasants 0
Wood 3
Doddridge 1
Harrison 4
Taylor 0
Ritchie 1
Barbour 0
Tucker 0
Grant 0
Mineral 1
Hampshire 2
Morgan 0
Berkeley 28
Jefferson 14
Hardy 1
Wirt 0
Gilmer 0
Lewis 0
Upshur 1
Randolph 0
Pendleton 0
Jackson 0
Calhoun 0
Mason 0
Roane 0
Braxton 0
Putnam 1
Cabell 48
Clay 1
Webster 0
Kanawha 15
Nicholas 0
Pocahontas 0
Lincoln 0
Wayne 6
Boone 0
Fayette 3
Greenbrier 1
Logan 7
Raleigh 15
Mingo 5
Summers 0
Monroe 0
Wyoming 1
McDowell 1
Mercer 11
Deaths per County
0 - 1
2 - 3
4 - 5
6 - 9
10 - 15
16 - 28
29 - 48
NOT TO SCALE
*Data source WV Health Statistics Center
**Data current as of June 13, 2018
***Substances involved are not necessarily the leading cause of death


2017 WV Overdoses
Involving Methamphetamine
Hancock 0
Brooke 0
Ohio 5
Marshall 1
Wetzel 4
Monongalia 5
Marion 1
Preston 1
Tyler 1
Pleasants 0
Wood 12
Doddridge 1
Harrison 7
Taylor 0
Ritchie 1
Barbour 1
Tucker 0
Mineral 0
Hampshire 0
Morgan 0
Berkeley 0
Jefferson 0
Grant 0
Hardy 2
Wirt 0
Gilmer 0
Lewis 4
Upshur 4
Randolph 3
Pendleton 1
Jackson 1
Calhoun 1
Mason 5
Roane 1
Braxton 3
Putnam 10
Cabell 42
Clay 2
Webster 0
Kanawha 52
Nicholas 3
Pocahontas 0
Lincoln 2
Wayne 7
Boone 3
Fayette 10
Greenbrier 1
Logan 3
Raleigh 13
Mingo 1
Summers 1
Wyoming 0
Monroe 0
McDowell 0
Mercer 2
N
NOT TO SCALE
Deaths per County
0
1 - 2
3 - 4
5 - 7
8 - 10
11 - 13
14 - 52
*Data source WV Health Statistics Center
**Data current as of June 13, 2018
***Substances involved are not necessarily the leading cause of death


Hancock
Brooke
Ohio
6.89
Marshall
10.21
Wetzel
6.71
Monongalia
3.84
Marion
6.68
4.28
Preston
Morgan
Berkeley
4.02
Jefferson3.88
Mineral
Hampshire
Tyler
Harrison
7.84
Taylor
Pleasants0
Doddridge
Barbour
Tucker
Grant
Hardy
2.9
Wood
Ritchie
Wirt
Lewis
Gilmer
Upshur
Randolph
6.71
0
Pendleton
Calhoun
Jackson
Roane
Braxton
8.19
Mason
Webster
Putnam
2.64
Clay
Pocahontas
Cabell
6.23
3.94
Kanawha
6.07
Nicholas
Lincoln
10.08
Greenbrier
6.42
Wayne
6.43
Boone
7.24
7.09
Fayette
Logan
6.82
Raleigh
3.8
Summers
Mingo
6.79
Monroe
Wyoming
3.48
Mercer
7.08
McDowell
Legend
Percent
0.00
0.01 - 4.00
4.01 - 6.00
6.01 - 7.00
7.01 - 10.88
Suppressed
N
Percent of
Neonatal Abstinence Syndrome (NAS)




| 3-year Average | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| United States | 483 | 483 | 484 | 475 | 458 | 433 | 409 | 392 | 383 | 380 |
| West Virginia | 267 | 272 | 272 | 273 | 283 | 281 | 286 | 311 | 311 | 306 |
| Putnam County | 175 | 183 | 199 | 201 | 190 | 169 | 164 | 214 | 244 | 339 |

*Please see Measuring Progress/Rankings Measures for more information on trends. Trends were measured using all years of data*

Community Survey Results

## SURVEY FINDINGS

Descriptive data analysis was performed using the survey responses collected from the Putnam County Health Department 2018 Community Survey. Findings are presented here, reflecting all questions and all responses in their entirety as provided by community members. All responses provided by community members were voluntary and no incentives were provided. .

## ZIP CODE OF RESPONDENTS

Respondents were asked to provide their zip code of residence to understand representation of respondents from across Putnam County. The areas in the County having the greatest number of respondents included Hurricane, Winfield, and Scott Depot. Six 'other' responses were from individuals indicating their primary zip code of residence to be 25143 (2 - Nitro), 25160 (Pond Gap), 25302 (Charleston), 25303 (South Charleston) and 25541 (Milton). One individual did not respond to this question.

**Zip code of respondents for primary place of residence**.

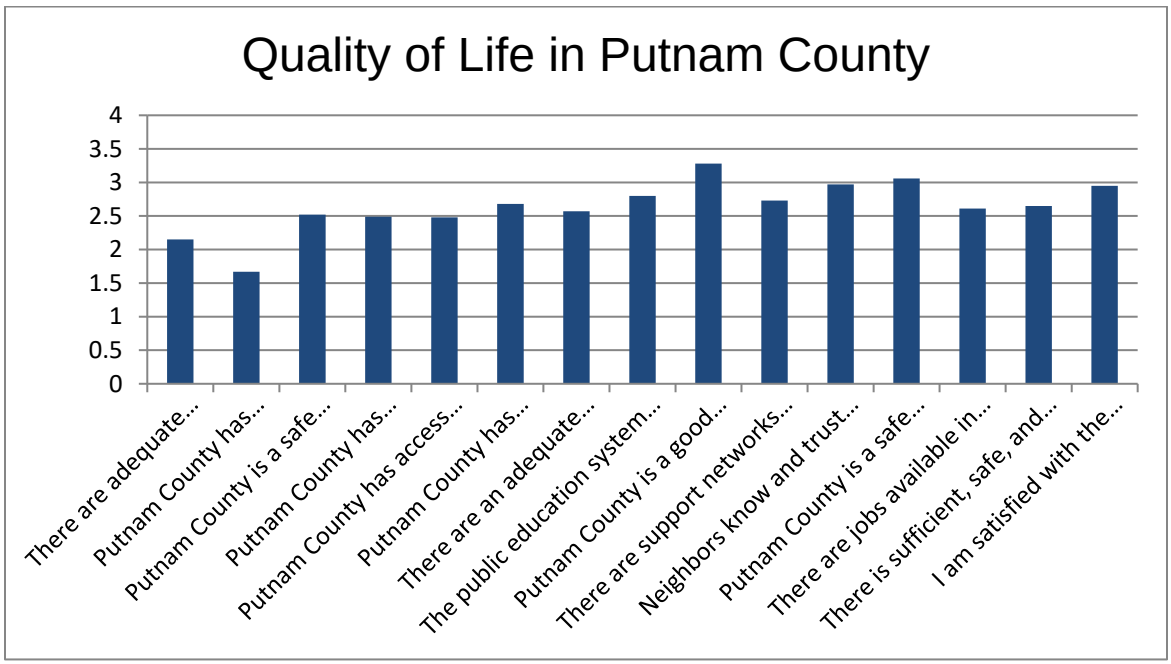
| Answer Choices | Responses | |
|---|---|---|
| 25011 (Bancroft) | 0.7% | 1 |
| 25033 (Buffalo) | 1.3% | 2 |
| 25070 (Eleanor) | 2.7% | 4 |
| 25082 (Frazier's Bottom) | 2.0% | 3 |
| 25109 (Hometown) | 4.0% | 6 |
| 25124 (Liberty) | 2.7% | 4 |
| 25159 (Poca) | 19.5% | 29 |
| 25168 (Red House) | 2.7% | 4 |
| 25213 (Winfield) | 18.1% | 27 |
| 25510 (Culloden) | 1.3% | 2 |
| 25526 (Hurricane) | 27.5% | 41 |
| 25560 (Scott Depot) | 13.4% | 20 |
| 25569 (Teays) | 0.0% | 0 |
| Other (please specify) | 4.0% | 6 |
| | **Answered** | **149** |
| | **Skipped** | **1** |

## QUALITY OF LIFE IN PUTNAM COUNTY

Respondents were asked to rate a set of 15 questions pertaining to quality of life in Putnam County. A total of 103 community members completed the survey; no respondents skipped this question. An overview of responses is provided below with the top statements where the greatest proportion agreed or strongly agreed being noted in green and the statements were the most number of respondents disagreed or strongly disagreed in red. .

**QUALITY OF LIFE Please select a response to rate each statement based on how you feel**

| Answer Options | Strongly Disagree | Disagree | Agree | Strongly Agree | Weighted Ave. |
|---|---|---|---|---|---|
| There are adequate sidewalks in Putnam County. | **25%** | **38%** | 35% | 3% | **2.15** |
| Putnam County has sufficient public transportation. | **46%** | 42% | 10% | 1% | **1.67** |
| Putnam County is a safe place to walk and bike. | **15%** | 29% | 46% | 10% | 2.52 |
| Putnam County has adequate health and wellness activities. | 10% | **36%** | 49% | 5% | 2.49 |
| Putnam County has access to affordable, healthy foods. | 13% | **32%** | 50% | 5% | **2.48** |
| Putnam County has adequate and safe access to recreation and exercise. | 9% | 27% | 52% | 12% | 2.68 |
| There are an adequate number of safe places for children to play/exercise in Putnam County. | 11% | 31% | 49% | 9% | 2.57 |
| The public education system in Putnam County adequately meets the health needs of school-age children in the County. | 11% | 14% | 59% | **16%** | 2.80 |
| Putnam County is a good place to raise children. | 2% | 5% | 55% | **37%** | **3.28** |
| There are support networks for individuals and families in Putnam County. | 6% | 22% | 65% | 7% | 2.73 |
| Neighbors know and trust one another and look out for one another in Putnam County. | 3% | 12% | **70%** | 15% | 2.97 |
| Putnam County is a safe place to live. | 1% | 10% | **71%** | **18%** | **3.06** |
| There are jobs available in Putnam County. | 6% | 31% | 60% | 3% | 2.61 |
| There is sufficient, safe, and affordable housing in Putnam County. | 8% | 23% | 67% | 3% | 2.65 |
| I am satisfied with the quality of life in Putnam County. | 3% | 11% | **73%** | 13% | **2.95** |
| | | | | ***Total*** | **150** |

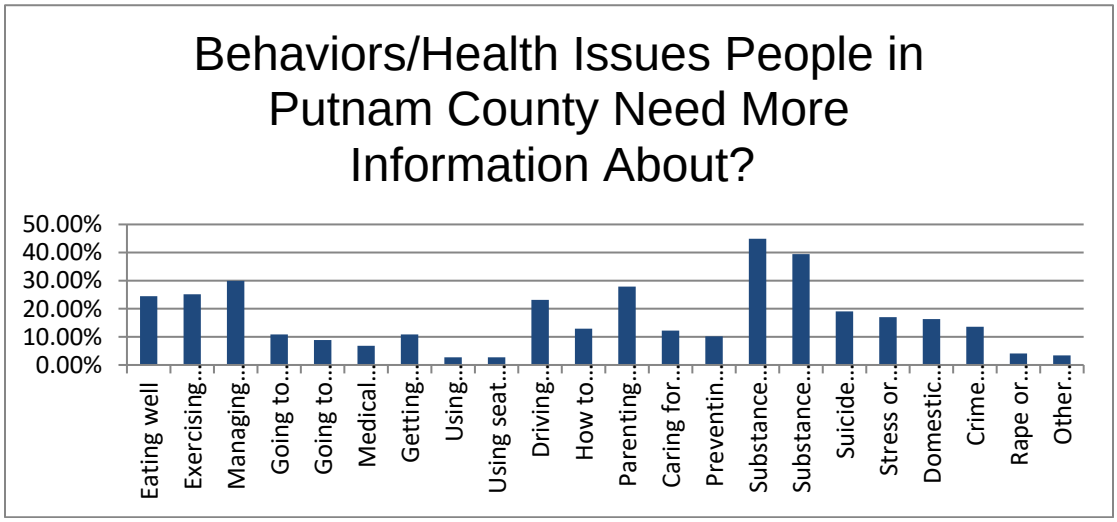

Quality of Life in Putnam County
4
3.5
3
2.5
2
1.5
1
0.5
0
There are adequate...
Putnam County has...
Putnam County is a safe...
Putnam County has...
Putnam County has access...
Putnam County has...
There are an adequate...
The public education system...
Putnam County is a good...
There are support networks...
Neighbors know and trust...
Putnam County is a safe...
There are jobs available in...
There is sufficient, safe, and...
I am satisfied with the...

**Health Behaviors/Issues People Need More information About in Putnam County**

Respondents were provided a list of health behaviors/issues and were asked which three behaviors/issues people in Putnam County need more information about. The top three selected health behaviors/issues were substance abuse prevention (45%), substance abuse treatment and recovery services (39%), and managing weight (30%). Five 'other' responses were help for the elderly and disabled, being clean/hygiene, an improved educational system with less sports and more learning, job seeking/job keeping skills, and senior meds. Three respondents did not answer this question.

| Answer Choices | Responses | |
|---|---|---|
| Eating well | 24% | 36 |
| Exercising / Physical Fitness | 25% | 37 |
| Managing Weight | 30% | 44 |
| Going to the doctor for yearly check-ups | 11% | 16 |
| Going to the dentist for yearly check-ups | 9% | 13 |
| Medical care while pregnant | 7% | 10 |
| Getting flu shots and immunizations (shots to prevent disease) | 11% | 16 |
| Using child safety seats in cars | 3% | 4 |
| Using seat belts | 3% | 4 |
| Driving safely (such as not texting while driving) | 23% | 34 |
| How to quit smoking | 13% | 19 |
| Parenting skills | 28% | 41 |
| Caring for family members with special needs or disabilities | 12% | 18 |
| Preventing pregnancy or sexually transmitted diseases | 10% | 15 |
| Substance abuse prevention (drugs and alcohol) | 45% | 66 |
| Substance abuse treatment and recovery resources or services | 39% | 58 |
| Suicide prevention | 19% | 28 |
| Stress or anger management | 17% | 25 |
| Domestic violence prevention | 16% | 24 |
| Crime prevention | 14% | 20 |
| Rape or sexual abuse prevention | 4% | 6 |
| Other (senior meds, job seeking/job keeping skills, elderly/disabled, being clean – hygiene, improved education system, less sports – more learning) | 3% | 5 |
| | **Answered** | **147** |

| | | |
|---|---|---|
| **Skipped** | | **3** |

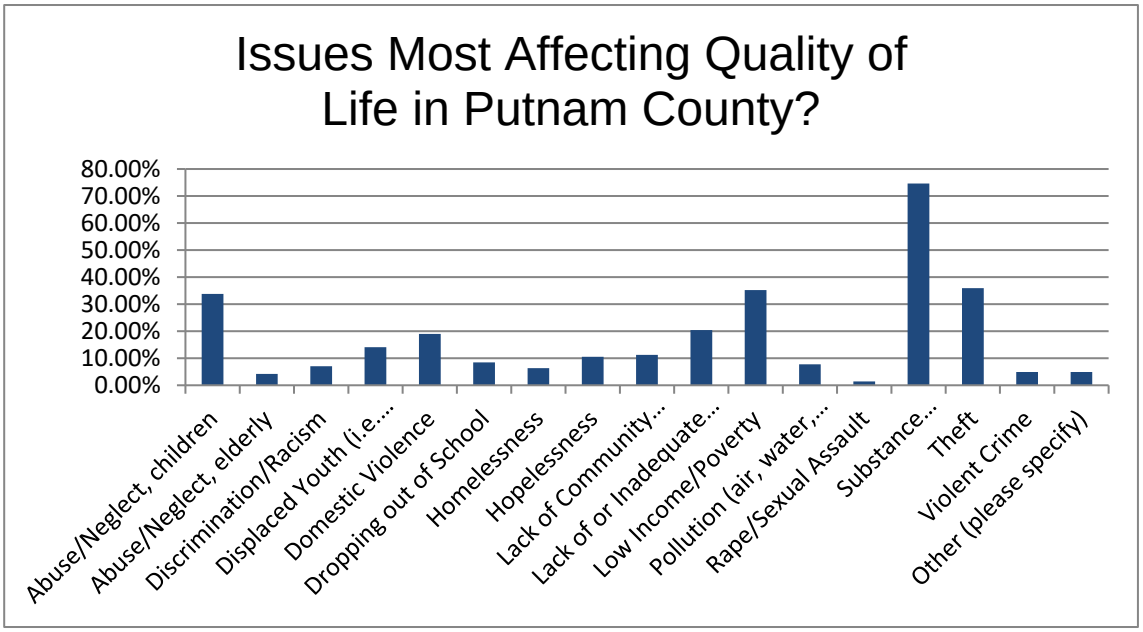



### Issues Affect Quality of Life in Putnam County

Respondents were asked to review a list of community issues and select the three which most affect quality of life in Putnam County. Of the 142 individuals responding to this question, 75% identified substance misuse/abuse (addiction) as the issue most greatly affecting quality of life, followed by 36% identifying theft, and 35% identifying low income/poverty. Important to note is the 34% identified child abuse/neglect as affecting quality of life in the County. Seven 'other' responses included help for the elderly, lack of resources in the north end of the county, lack of parental involvement among school-age children, lack of education. Seven respondents did not answer this question.

| Answer Choices | Responses | |
|---|---|---|
| Abuse/Neglect, children | 34% | 48 |
| Abuse/Neglect, elderly | 4% | 6 |
| Discrimination/Racism | 7% | 10 |
| Displaced Youth (i.e. number of youth in foster care) | 14% | 20 |
| Domestic Violence | 19% | 27 |
| Dropping out of School | 8% | 12 |
| Homelessness | 6% | 9 |
| Hopelessness | 11% | 15 |
| Lack of Community Support | 11% | 16 |
| Lack of or Inadequate Health Insurance Coverage | 20% | 29 |
| Low Income/Poverty | 35% | 50 |
| Pollution (air, water, land) | 8% | 11 |
| Rape/Sexual Assault | 1% | 2 |

| | | |
|---|---|---|
| Substance Misuse/Abuse (i.e. Addiction) | 75% | 107 |
| Theft | 36% | 51 |
| Violent Crime | 5% | 7 |
| Other (Lack of public transportation, help for the elderly, north end of county not getting resources, lack parental involvement among school-age children, and lack of education) | 4% | 5 |
| **Answered** | | **142** |
| **Skipped** | | **8** |



## GENERAL HEALTH STATUS

Respondents were asked to rate their general health status as excellent, very good, good, fair, or poor. A total of 145 individuals responded to this question. Results are provided below, where 90% of respondents rates their health as good, very good, or excellent.

| Answer Choices | Responses | |
|---|---|---|
| Poor | 3% | 4 |
| Fair | 8% | 11 |
| Good | 43% | 62 |
| Very Good | 34% | 50 |
| Excellent | 13% | 19 |
| Don't Know | 0% | 0 |
| | **Answered 145** | |
| | **Skipped 5** | |

## EXISTING HEALTH CONDITIONS

Respondents were asked if they have ever been told by a doctor, nurse or other health professional that you have any of the health conditions below. Of note among the 147 respondents for this question is that 41% have been told they have high blood pressure, 41% that they are overweight or obese, 40% that they have high cholesterol and 40% that they have depression or anxiety. 9.4%).

| | Yes | | No | | Don't Know | | Rather Not Answer | | Total | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|---|
| Asthma | 19% | 26 | 80% | 108 | 1% | 1 | 0.00% | 0 | 96 | 1.81 |
| Cancer | 8% | 11 | 91% | 126 | 1% | 2 | 0.00% | 0 | 98 | 1.94 |
| Dementia or Alzheimer's | 1% | 2 | 98% | 135 | 1% | 1 | 0.00% | 0 | 96 | 1.99 |
| Depression or Anxiety | 40% | 57 | 58% | 83 | 1% | 2 | 1.01% | 1 | 99 | 1.63 |
| Diabetes (high blood sugars) | 18% | 26 | 81% | 114 | 1% | 1 | 0.00% | 0 | 98 | 1.82 |
| Heart Disease | 11% | 15 | 87% | 120 | 2% | 3 | 0.00% | 0 | 97 | 1.91 |
| High Blood Pressure | 41% | 59 | 59% | 85 | 0% | 0 | 0.00% | 0 | 100 | 1.59 |
| High Cholesterol | 40% | 57 | 60% | 86 | 0% | 0 | 0.00% | 0 | 99 | 1.60 |
| Osteoporosis | 8% | 11 | 92% | 125 | 0% | 0 | 0.00% | 0 | 96 | 1.92 |
| Overweight or Obesity | 41% | 58 | 59% | 84 | 0% | 0 | 0.00% | 0 | 100 | 1.59 |
| | | | | | | | | | **Answered** | **147** |
| | | | | | | | | | **Skipped** | **3** |

## FOLLOW UP AFTER TOLD OF DIAGNOSIS

Respondents were asked, if they were told of one or more diagnoses above, if they have followed up with a health care provider. Of the 127 individuals who responded to this question, 90% have followed up, 6% were unsure, 3% have not followed up, and 2% have not followed up but have made changes. .

| Answer Choices | Responses | |
|---|---|---|
| Yes, I have followed up | 90% | 114 |
| No, I have not followed up or made any changes | 3% | 4 |
| No, I have not followed up, BUT I have made changes | 2% | 2 |
| Don't know, not sure | 6% | 7 |
| **Answered** | | **127** |
| **Skipped** | | **23** |

## EXERCISE AND PHYSICAL ACTIVITY

Respondents were asked where they go for physical activity or exercise. A list of response options was provided as well as an 'other' category. A total of 147 individuals responded to this question. Results are provided below, where 56% go outdoors, 50% use their home, 37% go to a private gym or health club, and 22% go to a park. Five 'other' responses were provided as noted in the chart below. Of note is that only 6% (9 out of 145) responses indicated that they do not participate in any exercise or physical activity.

| Answer Choices | Responses | |
|---|---|---|
| Park | 22% | 32 |
| Outdoors | 56% | 81 |
| Private Gym or Health Club | 37% | 54 |
| Home | 50% | 73 |
| I do not participate in exercise or physical activity. | 6% | 9 |
| Other (golf club (1), local school track (1), work (2), friend's home (1) | 3% | 5 |
| | **Answered** | **145** |
| | **Skipped** | **5** |

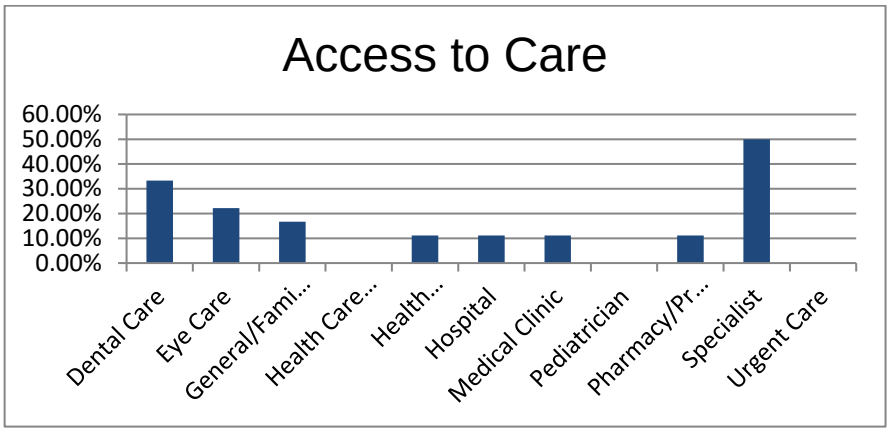
## ACCESS TO CARE

Respondents were asked if they had a problem getting health care for themselves or a family member in the past 12 months. Of the 145 respondents for this question, about 1 in 5 (20%) indicated they had a problem getting needed health care in the past 12 months.

| Answer Choices | Responses | |
|---|---|---|
| No | 81.00% | 117 |
| Yes | 20.00% | 29 |
| Don't Know | 0.00% | 0 |
| Prefer not to answer | 0.00% | 0 |
| **Answered** | | **145** |
| **Skipped** | | **5** |

For respondents that indicated they had difficulty getting needed health care in the past 12 months, they were also asked to identify the type of provider they had difficulty with access to care from a list that was provided. The most commonly reported difficulty getting needed health care was with a specialist by 14 of 27 (52%) individuals and dental care by 11 (41%).

| Answer Choices | Responses | |
|---|---|---|
| Dental Care | 41% | 11 |
| Eye Care | 30% | 8 |
| General/Family Doctor | 11% | 3 |
| Health Care - Pregnancy | 0% | 0 |
| Health Department | 11% | 3 |
| Hospital | 7% | 2 |
| Medical Clinic | 7% | 2 |
| Pediatrician | 0% | 0 |
| Pharmacy/Prescriptions | 7% | 2 |
| Specialist | 52% | 14 |
| Urgent Care | 0% | 0 |
| **Answered** | | **23** |
| **Skipped** | | **127** |


Access to Care
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Dental Care
Eye Care
General/Fami...
Health Care...
Health...
Hospital
Medical Clinic
Pediatrician
Pharmacy/Pr...
Specialist
Urgent Care

Finally, respondents were asked to identify from a list, specific problems that prevented them from accessing care in the past 12 months. An 'other' response option was provided. Of the 91 respondents for this question, 27.47% indicated that the deductible or co-pay was too high and 16.48% indicated their insurance did not cover what they needed.

| Answer Choices | Responses |
|---|---|
| No health insurance | 7 |
| Insurance didn't cover what I needed | 20 |
| The deductible or co-pay was too high | 35 |
| The doctor would not take my insurance or Medicaid | 10 |
| The hospital would not take my insurance or Medicaid | 1 |
| The pharmacy would not take my insurance or Medicaid | 2 |
| The dentist would not take my insurance or Medicaid | 5 |
| I had not transportation to get there | 2 |
| I did not know where to go | 2 |
| I could not get an appointment | 5 |
| None | 67 |
| | 8 |
| The wait was too long | |
| Other (V.A. (1), no/inadequate dental insurance (2), lack of doctors in the area (2), insurance wouldn't cover certain meds (1), office locked (1). | 7 |

## RESPONDENT DEMOGRAPHICS

### GENDER

Respondents were asked to provide their gender to characterize the population completing the survey. There were a total of 148 responses. Overall 112 (76%) surveys were received from females, 23% from males, 1% from individuals identifying as transgender, and 1% from individuals not identifying as female, male, or transgender.

| Answer Choices | Responses | |
|---|---|---|
| Male | 23% | 34 |
| Female | 76% | 112 |
| Transgender | 1% | 1 |
| Do not identify as female, male, or transgender | 1% | 1 |
| **Answered** | | **148** |
| **Skipped** | | **1** |

### RACE

Respondents were asked to identify their race as an additional means of understanding the population completing the survey. There were a total of 148 responses with 140 surveys (95%) received from individuals who were white and 2 'other' responses where individuals declined to answer.

| Answer Choices | Responses | |
|---|---|---|
| White | 95% | 140 |
| Black or African American | 2% | 3 |
| American Indian or Alaska Native | 3% | 4 |
| Hispanic | 0% | 0 |
| Other (please specify) | 2% | 3 |
| **Answered** | | **148** |
| **Skipped** | | **2** |

### MARITAL STATUS

Respondents were asked to provide their marital status from a list of options and an 'other' category was provided. From a total of 143 respondents for this question, 109 (77%) were married, 14 (10%) were single, 11 (8%) were divorced, 8 (6%) were widowed, and 1 individual declined to answer.

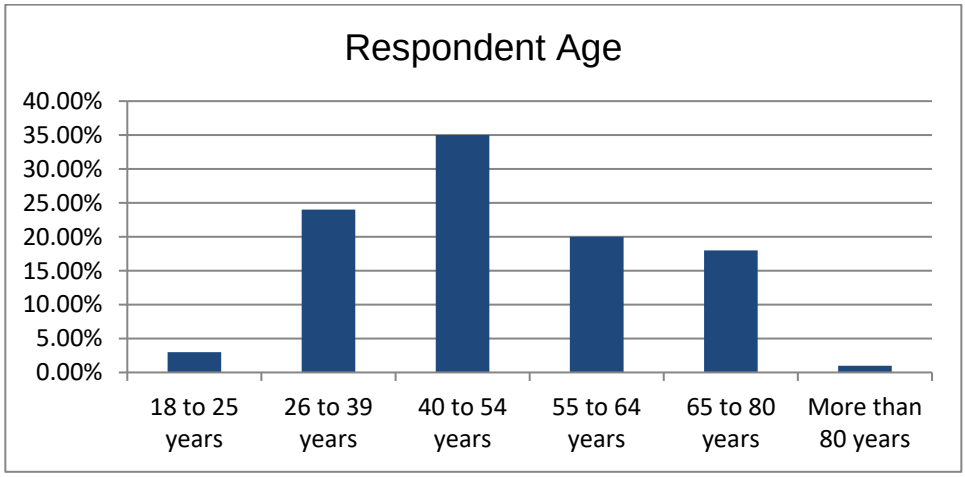
| Answer Choices | Responses | |
|---|---|---|
| Single | 10% | 14 |
| Married / Unmarried partner | 77% | 109 |

| | | | |
|---|---|---|---|
| Separated | | 0% | 0 |
| Divorced | | 8% | 11 |
| Widowed | | 6% | 8 |
| | **Answered** | | **142** |
| | **Skipped** | | **6** |

**RESPONDENT AGE**

Respondents were asked to select an age range that reflected their current age. There were a total of 142 responses with surveys received from all age groups. Overall surveys were received from 4 individuals between 18 and 25 years of age, 34 individuals 26 to 39 years of age, 49 from individuals 40 to 54 years of age, 28 from individuals 55 to 64 years of age, 25 from individuals 65 to 80 years of age, and 2 from individuals greater than 80 years of age.

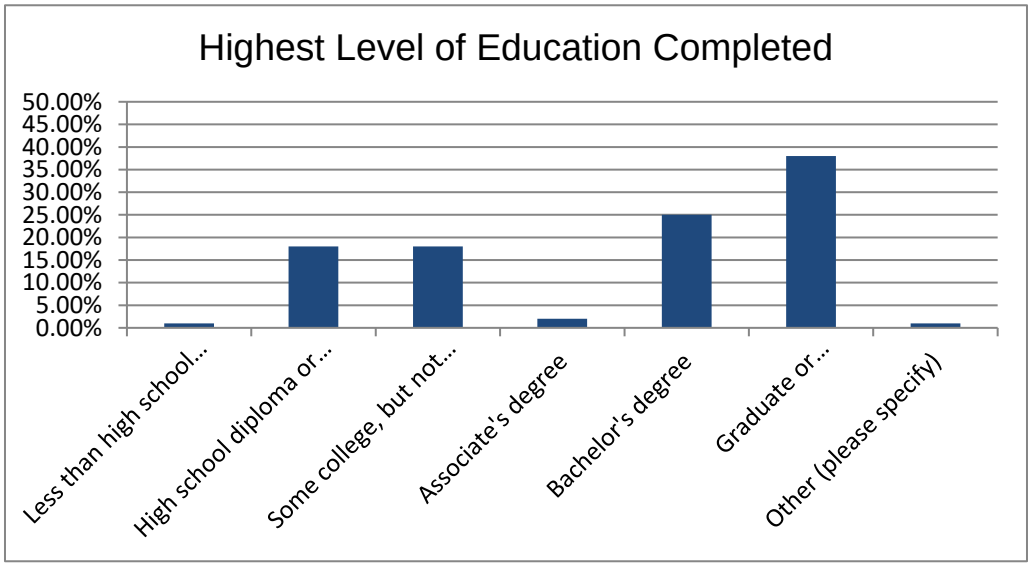
| Answer Choices | Responses | |
|---|---|---|
| 18 to 25 years | 3% | 4 |
| 26 to 39 years | 24% | 34 |
| 40 to 54 years | 35% | 49 |
| 55 to 64 years | 20% | 28 |
| 65 to 80 years | 18% | 25 |
| More than 80 years | 1% | 2 |
| **Answered** | | **142** |
| **Skipped** | | **8** |



**HIGHEST LEVEL OF EDUCATION COMPLETED**

Respondents were asked to provide the highest level of education they had completed. There were a total of 142 responses for this question. Overall 63% of respondents had a college degree (bachelor's or graduate/professional degree), 2% had an Associate's degree and 18% had some college but no degree, 18% had a high school degree or GED, and 1% had less than a high school degree. Two 'other' responses were also received as noted in the table below.

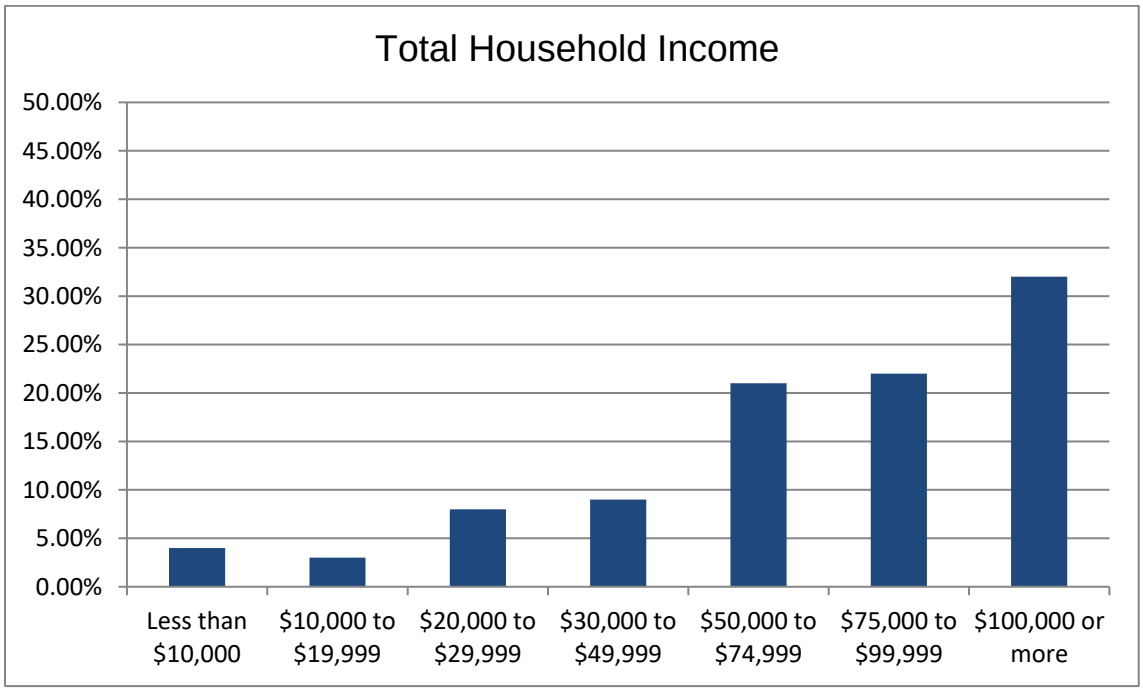
| Answer Choices | Responses | |
|---|---|---|
| Less than high school graduate | 1% | 1 |
| High school diploma or GED | 18% | 25 |
| Some college, but not degree | 18% | 25 |
| Associate's degree | 2% | 3 |
| Bachelor's degree | 25% | 35 |
| Graduate or Professional Degree | 38% | 54 |
| Other (trade pgm/vocation – 2) | 1% | 2 |
| **Answered** | | **142** |
| **Skipped** | | **8** |



**TOTAL HOUSEHOLD INCOME**

Respondents were asked to provide their total household income. There were a total of 140 responses for this question with surveys received from all levels of household income. The greatest number of surveys (32%) were received by those with income of $100,000 or more A total of 54% of survey were received from respondents with total household income of $75,000 or more. and the fewest (7%) from those with low income of $19,999 or less.

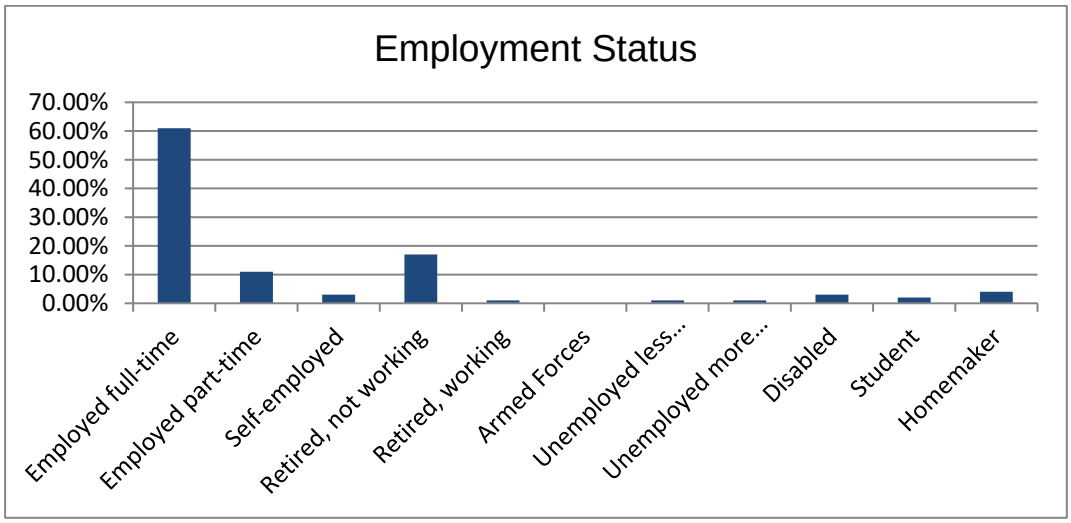
| Answer Choices | Responses | |
|---|---|---|
| Less than $10,000 | 4% | 6 |
| $10,000 to $19,999 | 3% | 4 |
| $20,000 to $29,999 | 8% | 11 |
| $30,000 to $49,999 | 9% | 13 |
| $50,000 to $74,999 | 21% | 20 |
| $75,000 to $99,999 | 22% | 31 |
| $100,000 or more | 32% | 45 |
| **Answered** | | **140** |
| **Skipped** | | **10** |



## EMPLOYMENT STATUS

Respondents were asked to provide their employment status. There were a total of 100 responses for this question. Overall, 75.0% of surveys were received from respondents working full-time, part-time, or self-employed. A total of 17.0% were retired and additional responses are summarized in the table below.

| Answer Choices | Responses | |
|---|---|---|
| Employed full-time | 61% | 87 |
| Employed part-time | 11% | 16 |
| Self-employed | 3% | 5 |
| Retired, not working | 17% | 25 |
| Retired, working | 1% | 1 |
| Armed Forces | 0% | 0 |
| Unemployed less than 1 year | 1% | 2 |
| Unemployed more than 1 year | 1% | 2 |
| Disabled | 3% | 4 |
| Student | 2% | 3 |
| Homemaker | 4% | 6 |
| | **Answered** | **143** |
| | **Skipped** | **7** |



## ARING FOR ELDERLY IN THE HOME

Respondents were asked if they are providing care for someone elderly in their home at the time they responded to the survey. Of the 146 respondents, 10% indicated they are caring for someone in their home.

| Answer Choices | Responses | |
|---|---|---|
| No | 91% | 133 |
| Yes | 10% | 14 |
| **Answered** | | **146** |
| **Skipped** | | **4** |

## PERSONAL ACCESS TO INTERNET

Respondents were asked if they had personal access to internet in their home. Of the 142

respondents, 8% (nearly 1 in 10) did NOT have access to internet in their home.

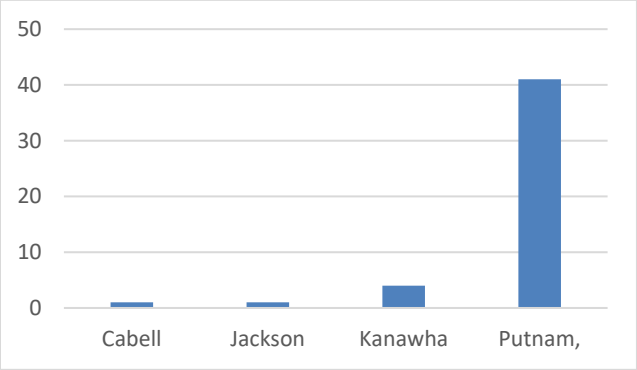
| Answer Choices | Responses | |
|---|---|---|
| Yes | 92% | 131 |
| No | 8% | 11 |
| **Answered** | | **97** |
| **Skipped** | | **6** |

Key Informant (Partner) Results

## Respondent Characteristics

***"What is your county of residence?***

A total of 41 (87%) of respondents indicated they were from Putnam County, 4 (8.5%) were from Kanawha County, and there was 1 each from Cabell and Jackson Counties.




***"Please select one response that best represents your primary area of professional expertise and/or practice".***

The following table represents the areas of expertise represented by respondents to the survey. There were no responses from the following sectors: academic, disability services, education (secondary, media, and veteran services.

| Area of Expertise | Response Percent | Response Count |
|---|---|---|
| Governmental Entity | 21.3% | 10 |
| Health Care Provider | 10.6% | 5 |
| Healthcare Organization | 8.5% | 4 |
| Law Enforcement | 8.5% | 4 |
| Business | 6.4% | 3 |
| Mental/Behavioral Health | 6.4% | 3 |
| Public Safety | 6.4% | 3 |
| Nonprofit Services/Nonprofit Organization | 4.3% | 2 |
| Advocacy | 2.1% | 1 |
| Economics | 2.1% | 1 |
| Education (primary) | 2.1% | 1 |
| Faith-Based Organization | 2.1% | 1 |
| First Responder | 2.1% | 1 |
| Human Services/Charity | 2.1% | 1 |
| Public Health | 2.1% | 1 |
| Pharmacy | 2.1% | 1 |
| Philanthropic | 2.1% | 1 |
| School Food Service | 2.1% | 1 |
| Sexual Violence advocacy, counseling, and prevention | 2.1% | 1 |

| | | | |
|---|---|---|---|
| Transportation | | 2.1% | 1 |
| Youth Development | | 2.1% | 1 |
| | **TOTAL** | | **47** |

**UNMET NEED**

## Target Populations with Greatest Unmet Need

A total of 46 partners responded to identifying the top three target populations having the greatest unmet need or in need of additional public health/health care resources in Putnam County. Of those, 27 (58.7%) identified addiction as the top target population having unmet needs. Also identified were mental health by 16 respondents (34.8%) and low income by 13 respondents (28.2%).

| Top Target Populations with Unmet Need | # Respondents | % Respondents |
|---|---|---|
| Addictions | 27 | 58.7% |
| Mental Health | 16 | 34.8% |
| Low Income | 13 | 28.2% |

## All Responses for Identifying Populations with Greatest Unmet Need

A summary of all responses for identifying populations with greatest unmet need is provided below. Four 'other' responses were received that are not reflected below, including child psychologist, dental, obesity, and transportation.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| **Addictions** | **27** | **58.7%** |
| **Mental Health** | **16** | **34.8%** |
| **Low Income** | **13** | **28.3%** |
| Seniors | 12 | 26.1% |
| Uninsured/Underinsured | 11 | 23.9% |
| Children, displaced (i.e. foster care) | 10 | 21.7% |
| Disabled, unable to work | 8 | 17.4% |
| Homebound Persons | 7 | 15.2% |
| Children (13-18 years) | 5 | 10.9% |
| Children (1-5 years) | 4 | 8.7% |
| Homeless | 4 | 8.7% |
| Veterans | 4 | 8.7% |
| Developmentally Disabled/Cognitively Disabled | 3 | 6.5% |
| Victims of Abuse/Neglect | 3 | 6.5% |
| Visual/Hearing Impaired | 2 | 4.3% |
| Children (6-12 years) | 2 | 4.3% |
| Lesbian/Gay/Bisexual/Transgender | 1 | 2.2% |
| Persons with HIV/AIDS/hepatitis | 1 | 2.2% |
| End of life (individuals w/end of life needs) | 1 | 2.2% |
| Other (Dental, Transportation, Obesity, Child Psychologist) | 4 | 8.7% |

## YOUTH HEALTH RISKS AND RISKY BEHAVIORS

### Youth Health Risks/Risky Behaviors

A total of 46 partners responded to identifying the top three youth health risks/risky behaviors that are most significant in Putnam County. For purposes of this question youth was defined as the population of those less than 18 years of age in the county. Of those, 56.5% identified drug use (illicit) as a top priority, 32.6% identified drug use (prescription medications) and child abuse/neglect as the second top priority (tied), and 30.4% identified unsafe driving habits (e.g. texting while driving, not wearing seat belt) as the third priority health risk among youth.

| Top Health Risks/Risky Behaviors | # Respondent Comments | % Respondent Comments |
|---|---|---|
| Drug Use – Illicit Drugs | 26 | 56.5% |
| Drug Use – Prescription Medications | 15 | 32.6% |
| Child Abuse/Neglect | 15 | 32.6% |
| Unsafe Driving Habits | 14 | 30.4% |

### All Responses for Identification of Youth Top Health Risks/Risky Behaviors

| Answer Options | Response Percent | Response Count |
|---|---|---|
| **Drug Use - Illicit drugs** | **56.5%** | **26** |
| **Drug Use - prescription medications** | **32.6%** | **15** |
| **Child abuse/Neglect** | **32.6%** | **15** |
| **Unsafe driving habits** | **30.4%** | **14** |
| Poor nutrition habits | 28.3% | 13 |
| Alcohol abuse | 17.4% | 8 |
| Obesity | 21.7% | 10 |
| Sedentary lifestyle | 21.7% | 10 |
| Suicide ideation/depression | 7.4% | 8 |
| Domestic violence | 15.2% | 7 |
| Social isolation | 8.7% | 4 |
| Tobacco Use - Smoking | 6.5% | 3 |
| Sexual promiscuity | 4.3% | 2 |
| Teen pregnancy | 2.1% | 1 |
| Tobacco Use - smokeless tobacco products | 2.1% | 1 |
| Other (overall unhealthy lifestyle) | 2.1% | 1 |
| | ***answered question*** | **46** |

## ADULT HEALTH RISKS AND RISKY BEHAVIORS

### Adult Health Risks/Risky Behaviors

A total of 47 partners responded to identifying the top three adult health risks/risky behaviors that are most significant in Putnam County. For purposes of this question youth was defined as the population of those 18 to 64 years of age in the county. Of those, 57.4% identified drug use (illicit) as a top priority, 38.3% identified obesity as the second priority, and 34.0% identified affordable health care as the third priority.

| Top Health Risks/Risky Behaviors | # Respondent Comments | % Respondent Comments |
|---|---|---|
| Drug Use – Illicit Drugs | 27 | 57.4% |
| Obesity | 18 | 38.3% |
| Affordable Health Care | 16 | 34.0% |

### All Responses for Identification of Adult Top Health Risks/Risky Behaviors

| Answer Options | Response Percent | Response Count |
|---|---|---|
| **Drug Use – Illicit Drugs** | **57.4%** | **27** |
| **Obesity** | **38.3%** | **18** |
| **Affordable Health Care** | **34.0%** | **16** |
| Poor nutrition habits | 25.5% | 12 |
| Tobacco Use - Smoking | 21.3% | 10 |
| Alcohol abuse | 19.1% | 9 |
| Unsafe Driving Habits | 17.0% | 8 |
| Affordable prescriptions | 12.8% | 6 |
| Domestic violence | 8.5% | 4 |
| Social isolation | 10.6% | 5 |
| Suicide ideation/depression | 6.4% | 3 |
| Sedentary lifestyle | 4.3% | 2 |
| Sexual promiscuity | 2.1% | 1 |
| Other (overall unhealthy lifestyle) | 2.1% | 1 |
| Other (dental care) | 2.1% | 1 |
| Other (anxiety) | 2.1% | 1 |
| | ***answered question*** | **47** |

## OLDER ADULT HEALTH RISKS AND RISKY BEHAVIORS

### Older Adult Health Risks/Risky Behaviors

A total of 47 partners responded to identifying the top three health risks/risky behaviors among older adults that are most significant in Putnam County. For purposes of this question youth was defined as the population of those 65 years of age and older in the county. Of those, 55.0% identified affordable prescriptions as the top health risk, 52.5% identified social isolation as the second risk, and 42.5% identified affordable health care as the third top health risk among older adults.

| Top Health Risks/Risky Behaviors | # Respondent Comments | % Respondent Comments |
|---|---|---|
| Affordable prescriptions | 27 | 57.4% |
| Social isolation | 24 | 51.1% |
| Affordable health care | 21 | 44.7% |

### All Responses for Identification of Older Adult Top Health Risks/Risky Behaviors

| Answer Options | Response Percent | Response Count |
|---|---|---|
| **Affordable prescriptions** | **57.4%** | **27** |
| **Social isolation** | **51.1%** | **24** |
| **Affordable health care** | **44.7%** | **21** |
| Falls | 36.2% | 17 |
| Poor nutrition habits | 27.7% | 13 |
| Sedentary lifestyle | 21.3% | 10 |
| Obesity | 14.9% | 7 |
| Drug Use - Prescription Medications | 12.8% | 6 |
| Suicide ideation/depression | 8.5% | 4 |
| Drug use – illicit drugs | 6.4% | 3 |
| Domestic violence | 4.3% | 2 |
| Tobacco use - smoking | 4.3% | 2 |
| Alcohol abuse | 2.1% | 1 |
| Sexual promiscuity | 2.1% | 1 |
| Tobacco use – smokeless tobacco products | 2.1% | 1 |
| | ***answered question*** | **47** |

## COMMUNITY AND ENVIRONMENTAL FACTORS

A total of 47 partners responded to identifying the top three community and/or environmental factors that are most significant in Putnam County. Of those, 57.4% identified lack of access to community recreation as the top community/environmental factor in Putnam County, 53.2% identified lack of access to healthy foods as the second greatest factors, and 46.8% identified public safety as the third greatest factors in the County.

| Top Health Risks/Risky Behaviors | # Respondent Comments | % Respondent Comments |
|---|---|---|
| Lack of access to community recreation | 27 | 57.4% |
| Lack of access to healthy foods | 25 | 53.2% |
| Public safety (e.g. unsafe neighborhoods) | 22 | 46.8% |

### All Responses for Identification of Community and/or Environmental Factors

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Lack of access to community recreation | 57.4% | 27 |
| Lack of access to healthy foods | 53.2% | 25 |
| Public safe (e.g. unsafe neighborhoods) | 46.8% | 22 |
| Smoking/second hand smoke | 38.3% | 18 |
| Proximity to industrial development and/or factories | 29.8% | 14 |
| Availability of water | 14.9% | 7 |
| Water quality | 14.9% | 7 |
| Unhealthy work environments | 10.6% | 5 |
| Lack of public transportation | 4.3% | 2 |
| Unsafe back roads | 2.1% | 1 |
| Lack of connection/activities/entertainment for adolescents/adults | 2.1% | 1 |
| Jobs paying more than minimum wage | 2.1% | 1 |
| | ***answered question*** | **47** |

# BARRIERS TO HEALTH CARE

## CLINICAL CARE

Key respondents were asked to rate access to a set of health care services as being not significant, significant, or highly significant in Putnam County. Those services where respondents identified the barriers as the most significant were lack of addiction services, lack of access to mental health services, and lack of access to dental, long term care and specialist services. It should be noted that at least 50% of respondents identified all 8 of the health care services as having significant or highly significant barriers.

| Answer Options | Not Significant 1 | Significant 2 | Highly Significant 3 | % Identifying Services as Having Sig or Highly Sig Barriers | Response Count |
|---|---|---|---|---|---|
| Lack of access to addiction services | 5 | 23 | 19 | 89% | 47 |
| Lack of access to dental services | 18 | 21 | 10 | 66% | 47 |
| Lack of access to long term care services | 11 | 26 | 10 | 66% | 47 |
| Lack of access to health care specialist services | 13 | 24 | 10 | 66% | 47 |
| Lack of access to mental health services | 10 | 18 | 19 | 79% | 47 |
| Lack of access to prescription drug services | 22 | 16 | 9 | 53% | 47 |
| Lack of access to primary care services | 20 | 23 | 5 | 60% | 47 |
| Lack of access to vision care services | 19 | 20 | 7 | 59% | 46 |

## FACTORS IMPACTING BARRIERS TO CARE

Key respondents were asked to rate a set of barriers to health care as being not significant, significant, or highly significant in Putnam County. Those services where respondents identified the barriers as depicted in the chart below.

| Answer Option | Provider Availability | Cost | Cultural / Language | Transportation | Total Responses |
|---|---|---|---|---|---|
| Lack of access to addiction services | **25** | 22 | 6 | **23** | 45 |
| Lack of access to dental services | 9 | 33 | 1 | 17 | 44 |
| Lack of access to long term care services | 18 | **36** | 3 | 11 | 45 |
| Lack of access to health care specialist services | 14 | 32 | 2 | 19 | 45 |
| Lack of access to mental health services | **27** | 24 | 5 | 16 | 45 |
| Lack of access to prescription drug services | 7 | **36** | 2 | 13 | 44 |
| Lack of access to primary care services | 9 | 29 | 2 | 18 | 45 |
| Lack of access to vision care services | 10 | 31 | 1 | 16 | 44 |

## HEALTH AND PUBLIC HEALTH ISSUES BEING ADDRESS WELL

Key informants were provided opportunity to identify health care and/or public health issues being addressed well in Putnam County. A total of 26 respondents provided the following data:

- Dental and vision
- Child/school nutrition
- Addiction
- Local recreation activities and Youth related high risk decision prevention
- Drug use with Teens
- Good EMS system.
- WIC ebt
- New providers to area
- Plenty of recreation areas. Safe neighborhoods
- Well addressed is addictions to opioids and the EMS 911 county Services
- Access to Recreation
- Emergency care
- Access to public parks; transportation (Putnam aging)
- Immunizations
- Collaborative effort with all agencies
- Vaccinations
- Dissemination of public information and strong law enforcement presence
- Putnam County has a great network of local doctors and dentists that meet the needs of most of Putnam County residents.
- There are more mental health providers in the county than ever; plenty of medical providers
- Recreation; Drug and Alcohol awareness; Economic development
- Putnam County Health Department does a good job in providing health information to the public on health issues, provides health clinics services and vaccinations. Community hospital with specialty practitioners and teaching hospital referral access.
- Exercise classes are on the rise as well as fitness facilities
- School based dental services

**Text Analysis**

## GREATEST PUBLIC HEALTH ISSUE

Key respondents were asked to identify the single greatest public health issue in Kanawha County. Of the 37 respondents for this questions, 15 (41%) overwhelmingly identify drug addiction as the single greatest public health threat.

- Addiction (15)
- Lack of healthy connection/activities/entertainment resulting in substance abuse as only form of social activity for adolescents
- Old teaching about what is a healthy diet. Grains are what they give to cattle & chickens to fatten them up. Why is it acceptable for people & then complain about obesity? Also all the sugar in food for kids. Making diabetics.
- Dental care
- Affordable mental health
- Mental Health and School Bullying
- Lack of public transportation
- Affordable healthcare
- Under-insured individuals refusing health care due to cost.
- Drug Issue that compounds to theft
- Drug use and addictions
- Hypertension/ High Cholesterol
- The single greatest public health issues in Putnam County is illicit IV drug use, which puts strains on public health budgets, leads to higher amounts of overdoses and overdose deaths, as well as a much higher frequency of Hepatitis A, B, and C cases.
- Hepatitis Outbreak
- Drug Addiction
- Lack of access to all services due to lack of public transportation
- Need more substance abuse recovery programs
- Transportation
- Drug addiction with lack of available services and lack of Mental Health Services
- We need better grocery stores and health food stores. Lack of quality of produce, meats and supplements are hurting Putnam County. We need more health related stores to come to the area!
- Transportation
- Water
- Drugs and children affected by drugs
- Drug addiction and crime related to it

**ESCRIPTION OF PRIORITIZED NEEDS**