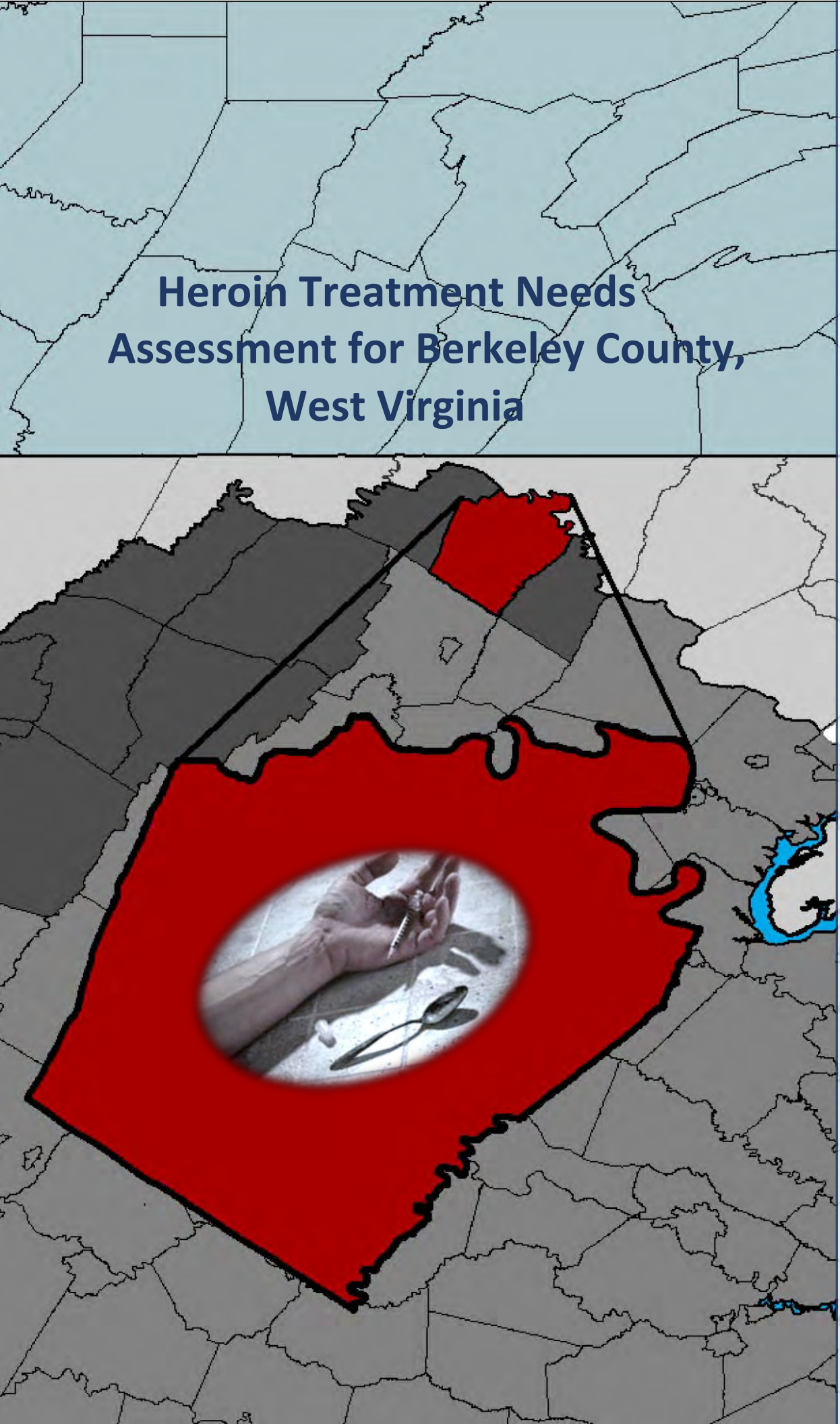
August

2015

Heroin Treatment Needs Assessment for Berkeley County, West Virginia



Prepared by:

Ruth Phillips, Associate Deputy Director

Peggy Preston, Intelligence Analyst

Washington/Baltimore HIDTA
HIGH INTENSITY DRUG TRAFFICKING AREA

Table of Contents

Executive Summary

This needs assessment illustrates three main points:

- (1) The devastating impact of the heroin problem in Berkeley County, West Virginia;
- (2) The deficiency in available heroin treatment options including several critical elements needed to provide the full spectrum of treatment services; and,
- (3) The need to develop a comprehensive infrastructure to facilitate the implementation of an effective strategy to address the heroin problem in the county.

In summary, the key findings of this report suggest that Berkeley County would greatly benefit from continued and developed leadership to coordinate a strategic approach to addressing the heroin problem. Major recommendations to achieve the needed level of leadership include:

- Implementing evidence based prevention and treatment programs.
- Supporting the development and implementation of the proposed Recovery Center.
- Seeking seed money to fund the Recovery Center until such time that criminal justice system funds may be reallocated.
- Supporting the implementation of the new Drug Courts.
- Developing a system to collect the key indicators and set performance measurements.
- Providing prevention and treatment education.

Purpose and Need

According to the National Heroin Threat Assessment (DEA 2015), the threat posed by heroin in the United States is a serious issue and has increased since 2007. On a national level, the growing threat has resulted in the drug being available in larger quantities, being used by a larger number of people, and causing an increasing number of overdose deaths. This needs assessment was initiated as a response to the increase in heroin overdoses in Berkeley County, West Virginia, and as a response to the outcome of an April 2015 Drug Prevention Summit organized by Senator Shelley Moore Capito. Participants of the Summit consisted of law enforcement personnel, medical professionals, counselors, social workers, business representatives, concerned officials and elected officials. One of the pervasive concerns expressed during the summit was the lack of substance abuse treatment services. The purpose of this document is to provide relevant background information describing the magnitude of the heroin problem in Berkeley County, and to provide a strategic assessment of the treatment aspect of the heroin problem for Berkeley County. This assessment is intended to provide information to decision-makers and facilitate the process for establishing priorities and allocating resources to address the heroin-related treatment needs of the county.

Background - The Heroin Problem in Berkeley County

The national heroin problem is multifaceted and encompasses a wide array of issues, many of which vary in magnitude by geographic location. Berkeley County is one of the eastern most counties in West Virginia, occupying approximately 321 square miles of land adjacent to Washington County, Maryland (Census 2015a). It is the second most populous county in West Virginia, with an estimated population of 110,497 people (Census 2015b). In an effort to begin to characterize the magnitude and extent of the heroin problem in the county, the following indicators are discussed in this assessment: overdoses, criminal justice data (arrests, seizures, drug trafficking, and court data), treatment referrals/admissions, and heroin treatment resources currently available.

Number of Overdoses

One of the most devastating impacts of heroin is the incidence of fatal overdose. Heroin-related overdoses have been reported as increasing across many cities and counties in the United States (DEA 2015). Berkeley County, West Virginia, is not an exception to this trend.

First, to gain an understanding of the magnitude of this impact, the number of heroin-related overdoses and population size for Berkeley County are compared to nearby counties in the State of Maryland. Data for Berkeley County, and three nearby Maryland counties: Frederick County, Montgomery County, and Washington County, are presented in **Table 1**. Based on the data reported for 2014, there were 33 heroin-related overdose deaths in Montgomery County, 26 heroin-related overdoses in Frederick County, 24 heroin-related overdose deaths in Berkeley County, and 21 heroin-related overdose deaths in Washington County (MD DHMH 2015, WV HSC 2015). In general, the number of

heroin-related overdose deaths for all four counties are within the same order of magnitude (ranging from 21 to 33 overdoses). When taking into account population size for these counties, the number of overdoses per 100,000 people is estimated to be the highest for Berkeley County, followed by Washington County, Frederick County, and Montgomery County, respectively. In 2014, Berkeley County had approximately 71 percent as many fatal overdoses per 100,000 people as Baltimore (City) (see **Figure 1**).

Table 1. Overdose and Population Data Comparison

Data by County	2010	2011	2012	2013	2014
Overdoses[1]					
Berkeley County	6	9	13	26	24
Frederick County	6	11	10	21	26
Montgomery County	12	11	22	28	33
Washington County	6	8	11	14	21
Baltimore City	93	76	131	150	192
Population[2]					
Berkeley County	104,659	105,719	107,062	108,684	110,497
Frederick County	234,172	237,338	239,668	241,414	243,675
Montgomery County	975,934	992,738	1,006,547	1,019,767	1,030,447
Washington County	147,749	148,814	149,162	149,266	149,573
Baltimore City	621,317	620,889	622,950	623,404	622,793
Overdoses per 100,000[3]					
Berkeley County	6	9	12	24	22
Frederick	3	5	4	9	11
Montgomery	1	1	2	3	3
Washington	4	5	7	9	14
Baltimore City	15	12	21	24	31

Table Notes:

1.) Data extracted from MD DMHM 2015 and WV HSC 2015.
2.) Data extracted from Census 2015b and Census 2015c.
3.) Overdoses per 100,000= (Number of Overdoses/ (population/100,000)). Values are rounded to the nearest whole number.

Figure 1. Comparison of Numbers of Heroin-Related Overdoses to Population Estimates

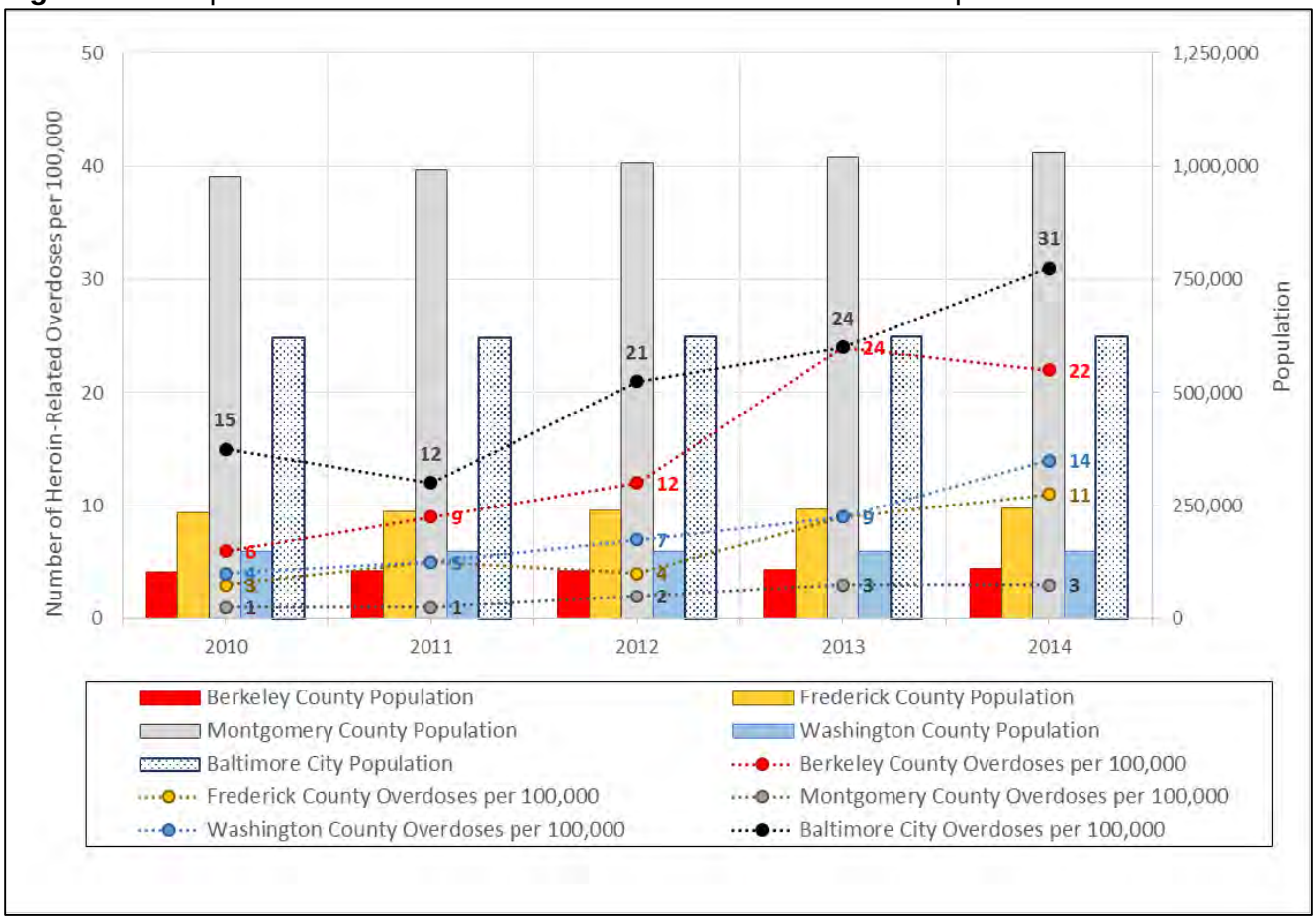
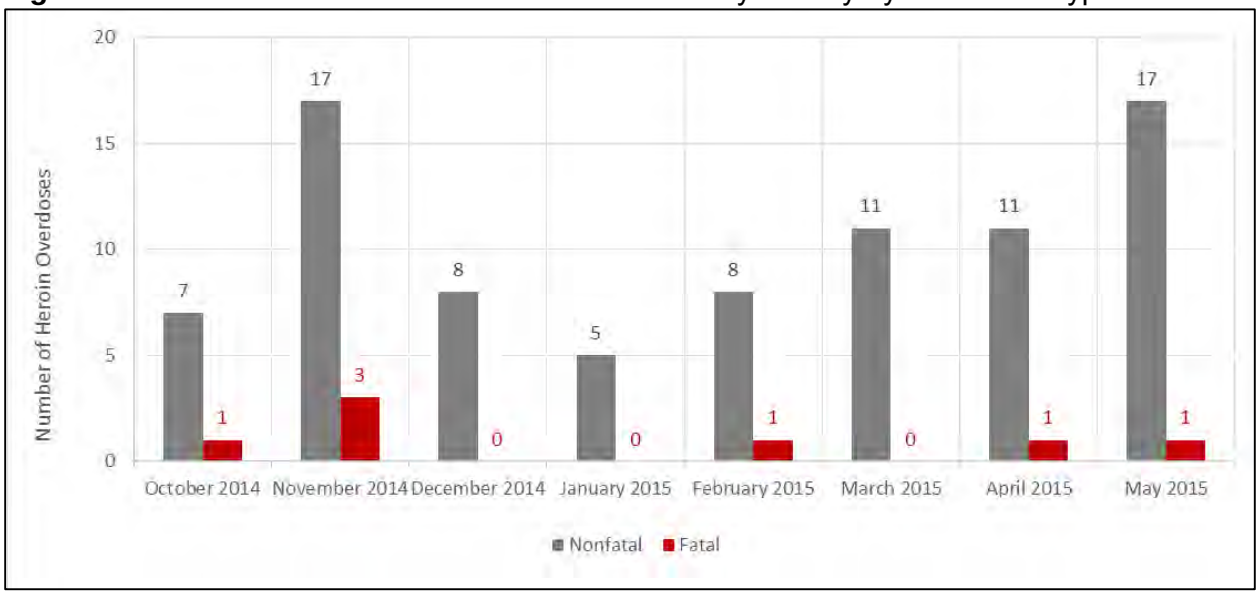


Figure Sources: Data obtained from Census 2015b; Census 2015c; MD DHMH 2015; WV HSC 2015.
Figure Notes: This figure has two *y*-axes. The *y*-axis on the left corresponds to the number of heroin-related overdoses per 100,000 people. The *y*-axis on the right corresponds to the population (number of people). When interpreting the data on this figure, the differences in definition of overdoses should be considered. The Maryland Department of Health and Mental Hygiene does not include deaths that were not accidental or of undetermined intent. The data for Berkeley County includes all manners of deaths (not accidental and undetermined intent). Estimates for Berkeley County, accounting for the difference in definition, are illustrated on this figure with red X's and a solid red line. It should also be noted that the causes of death are still being coded for West Virginia data, and the 2014 total is likely to increase.

As illustrated in **Figure 1**, over the past several years, Berkeley County (in red) has been experiencing an increase in the number of heroin-related overdose deaths. The number of nonfatal heroin related overdose deaths is also likely also to increase, and should be taken into consideration. Medical treatment facilities often do not share data providing specifics on medical emergencies such as nonfatal overdoses, however, nonfatal heroin overdoses can be estimated from data from acquired from 911 centers and individual police agencies. Raw estimates (provided by the W/B HIDTA Berkeley Drug Initiative, for the October 2014 to May 2015 time period), based on emergency call center statistics from the Berkeley 911 Center, and the three individual police agencies in the county, are presented by overdose type in **Figure 2**.

Figure 2. Estimated Number of Overdoses in Berkeley County by Overdose Type



Possible reasons for the increases in heroin-related overdoses, as suggested by the National Heroin Threat Assessment (DEA 2015) include:

- An increase in new heroin users.
  - Includes new young and inexperienced drug abusers.
  - Includes prescription drug abusers that are not accustomed to varying purities, dosage amounts, and adulterants.
- High purity batches of heroin sold in certain markets causing accidental overdoses.
  - This may impact new and regular users.
  - This may also impact heroin addicts that have stopped using heroin for a period of time (due to rehabilitation, incarceration, etc.) and subsequently return to using heroin, and have increased susceptibility because their tolerance to the drug has decreased.
- The use of highly toxic heroin adulterants in certain markets.

Further, the increase in heroin-related overdoses may be a reflection of inadequate resources for prevention and treatment measures.

To gain additional insight on the population affected, the West Virginia Health Statistics Center was contacted to obtain more specific information regarding the characteristics of the Berkeley County overdose victims. Data, including gender, age range, employment status, race, ethnicity, and average number of drugs involved for Berkeley and Jefferson Counties was provided for 2010 through the March of 2015, and is summarized in **Table 2**. The majority of fatal overdoses were accidental, meaning they were not the result of suicide, homicide, or natural causes. Of the 93 victims, approximately: 81 percent were male; 90 percent were white, non-Hispanic; 82 percent were employed at the time of the overdose; and 82 percent of the deaths included more

than one drug, with an average of 2.62 drugs (including heroin). The average age of the victims for the time period evaluated ranged from 27 to 49 years old. Of the overdoses reported for 2015, all 3 victims were in the under 40 range (ages 35 to 39), with an average age of approximately 37 years old.

Table 2. Breakdown of Fatal Overdoses in Berkeley and Jefferson Counties, 2010-2015

	2010	2011	2012	2013	2014	2015[1]
Number of Overdoses- Berkeley County	**6**	**9**	**13**	**26**	**24**	***2***
Number of Overdoses- Jefferson County	1	0	2	3	5	*1*
Total Number of Overdoses- Berkeley & Jefferson Counties	7	9	15	29	30[1]	*3*
Breakdown of Type of Overdose Death for Berkeley and Jefferson Counties						
Number of Accidental Overdoses	7	9	15	29	29	*3*
Number of Undetermined Intent Overdoses	0	0	0	0	1	*0*
Breakdown of Overdose Deaths in Berkeley and Jefferson Counties						
Number of Male Overdose Victims	5	6	12	23	26	*3*
Number of Female Overdose Victims	2	3	3	6	4	*0*
Age Range of Overdose Victims	under 20 to under 55	under 30 to under 60	under 15 to under 60	under 25 to under 70	under 30 to under 65	*under 40 (all within the 35 to 39 age range)*
Average Age	35.2	34.91	39	39.69	39.4	*36.67*
Standard Deviation of Ages	10.29	11.23	12.66	11.96	9.68	*2.08*
Number of Overdose Victims that were Employed	5	8	12	23	26	*3*
Number of Overdose Victims that were Unemployed	2	1	2	5	3	*0*
Number of Overdose Victims with Unknown Employment Status	0	0	1	1	1	*0*
Number of White, Non-Hispanic Overdose Victims	7	9	14	23	28	*3*
Number of African American, Non-Hispanic Overdose Victims	0	0	0	6	1	*0*
Number of Native American Overdose Victims	0	0	1	0	0	*0*
Number of Other Race, Hispanic Overdose Victims	0	0	0	0	1	*0*
Number of Overdose Deaths with more than one Drug Involved	6	8	13	26	21	*3*
Number of Overdose Deaths with only Heroin Involved	1	1	2	3	9	*0*
Average Number of Drugs Involved in Overdose Death (including heroin)	2.43	2.78	2.8	3.07	2.17	*2*

Table Notes: Data obtained from WV HSC 2015. The age ranges of the victims were reported in 5-year increments.

1.) Data for 2015 is the information reported as of March.

2.) One individual was resident, but died elsewhere in West Virginia.

Criminal Justice System Data

Data from criminal justice entities is presented in this section to further illustrate the impact of heroin upon Berkeley County, including data from law enforcement agencies, courts, and correctional facilities. The following heroin-related data should be taken into account when considering the need for allocating additional resources for heroin treatment efforts in Berkeley County.

Arrests and Seizures-

Several task forces across the West Virginia region attribute a large portion of local violent crime to heroin traffickers (DEA 2015). There are three law enforcement agencies in Berkeley County: (1) Berkeley County Sheriff's Department, (2) Martinsburg City Police, and (3) West Virginia State Police- Troop 2 Charles Town Detachment. To gain an understanding of the number of arrests associated with heroin-related offenses, each of the agencies was contacted during the June 2015 timeframe for arrest data. One of the challenges with obtaining raw numbers associated with heroin-related arrests is that drug arrests are recorded with a uniform state code for scheduled drugs. This means that a generic code gets entered into the agencies' records, rather than a specific code identifying the substance type. For each record entered with the generic scheduled drug code, it would be necessary to obtain and review the report associated with the individual record to determine if the substance has been identified as heroin. Because the metrics to track this data by drug type are not currently in place for all of the agencies in Berkeley County, and considerable resources would be needed to research historic data, only a limited amount of data is presented in this section.

Arrest data from Berkeley County Sheriff's Office suggests that, in general, the number of heroin arrests per year have been increasing since 2010. **Figure 3** provides a summary of the heroin arrest data from 2010 up to June 1, 2015.

Figure 3. Berkeley County Sheriff's Office Heroin Arrests 2010-2015

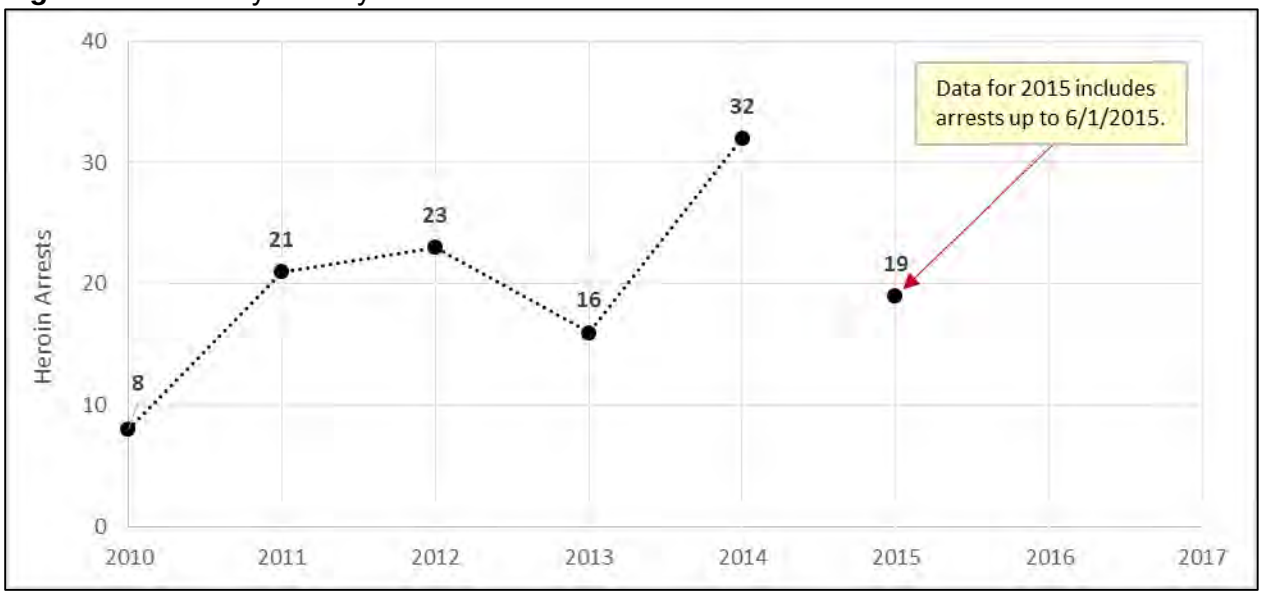


Figure Notes: Data obtained from Berkeley County Sheriff's Office.

West Virginia State Police publishes an annual report that includes limited statistics related to their special drug patrols. The following is a summary of statistics for 167.5 man hours during a less than 6 month period in 2014, from the Troop 2 special drug patrols:

- Heroin seized (grams): 42.75
- Drug arrests (associated drug type not specified): 68
- Misdemeanor arrests (associated drug type not specified): 58
- Fugitive arrests (associated drug type not specified): 2
- Felony arrests (associated drug type not specified): 37
- Illegal guns seized (associated drug type not specified): 24
- Search warrants executed (associated drug type not specified): 4

Berkeley County was recently designated as a county within the W/B HIDTA's area of responsibility. Beginning in 2015 the W/B HIDTA Berkeley County Drug Initiative began entering case data into Case Explorer, an event and case deconfliction system, which is also linked to Performance Management Process (PMP), a program that is used by HIDTA to track metrics. **Figure 4** provides a summary of the respective seizure data entered by the W/B HIDTA Berkeley County Drug Initiative into Case Explorer.

Figure 4. Summary of W/B HIDTA Berkeley County Drug Initiative Heroin Seizure Data

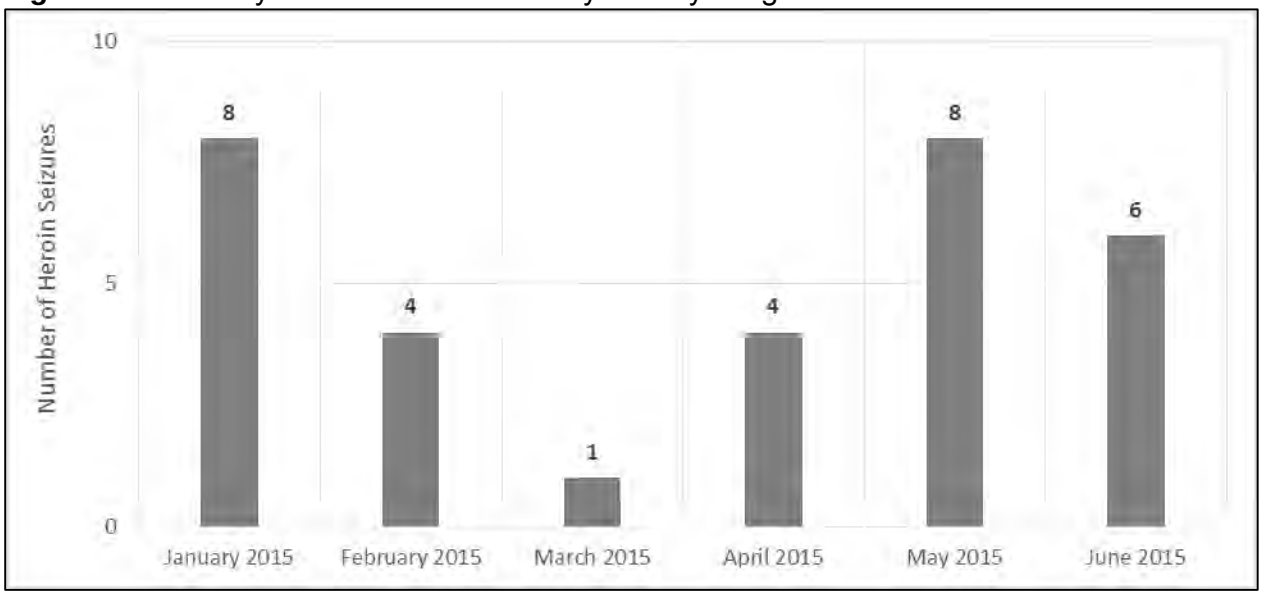


Figure Notes: Data extracted from PMP on July 13, 2015. The data represents heroin seizures by the W/B HIDTA Berkeley County Drug Initiative.

Court Data

Anecdotally, the trends in Berkeley County for both felony and misdemeanor cases related to heroin have been described as increasing over approximately the last 5 years. Similar to the law enforcement agencies, the court systems' records are not specifically designed to track cases by drug type. However, the West Virginia Supreme Court of Appeals was able to provide some data extracted from their databases and records to gain a snapshot of the heroin problem as depicted by court data.

The West Virginia Supreme Court of Appeals provided data from their West Virginia Offender Case Management System (WVCOMS). This includes drug test results from adult probation, juvenile probation, and juvenile drug court. The following is a summary of the data, for January 2014 through June 2015, from the WVCOMS for the 23rd Circuit, which includes Berkeley, Morgan, and Jefferson Counties. At present, this data cannot be reported by county, and the drug test results do not differentiate heroin from morphine or opiates.

- Adult Probation- 241 out of 1336 drug test results (18 percent) were labeled as positive for morphine or opiates.
- Juvenile Probation- 9 out of 178 drug test results (5 percent) recorded were labeled as positive for morphine or opiates.
- Juvenile Drug Court- 0 drug test results were labeled as positive for morphine or opiates.

Heroin Traffickers and Drug Trafficking Organizations (DTOs)

It is assumed that the numbers of heroin traffickers and DTOs operating in Berkeley County are likely indicators of heroin supply and demand and how these indicators are changing. Anecdotally, it is thought that heroin trafficking started to increase over the past ten years in Berkeley County, specifically in areas of Martinsburg (McCormick 2015). A review of press releases from the United States Attorney's Office, Northern District of West Virginia, supports the notion that heroin trafficking has increased in Berkeley County. From 2009 to June 2015 there were approximately 124 press releases from the United States Attorney's Office, Northern District of West Virginia, describing federal indictments, convictions, arrests or sentencings, with the word "heroin" in the title. Of the press releases, 31 of the reports mentioned heroin being trafficked in Berkeley County or by defendants that were Berkeley County residents. The aforementioned 31 press releases described approximately 100 defendants with heroin trafficking-related charges. **Figure 5** illustrates the corresponding number of alleged heroin traffickers mentioned per year as estimated from the United States Attorney's Office, Northern District of West Virginia press releases. It is assumed that the recent increase in heroin traffickers is an indicator that the demand for heroin in Berkeley County is also increasing.

Figure 5. Number of Alleged Heroin Traffickers Described in United States Attorney's Office, Northern District of West Virginia Press Releases

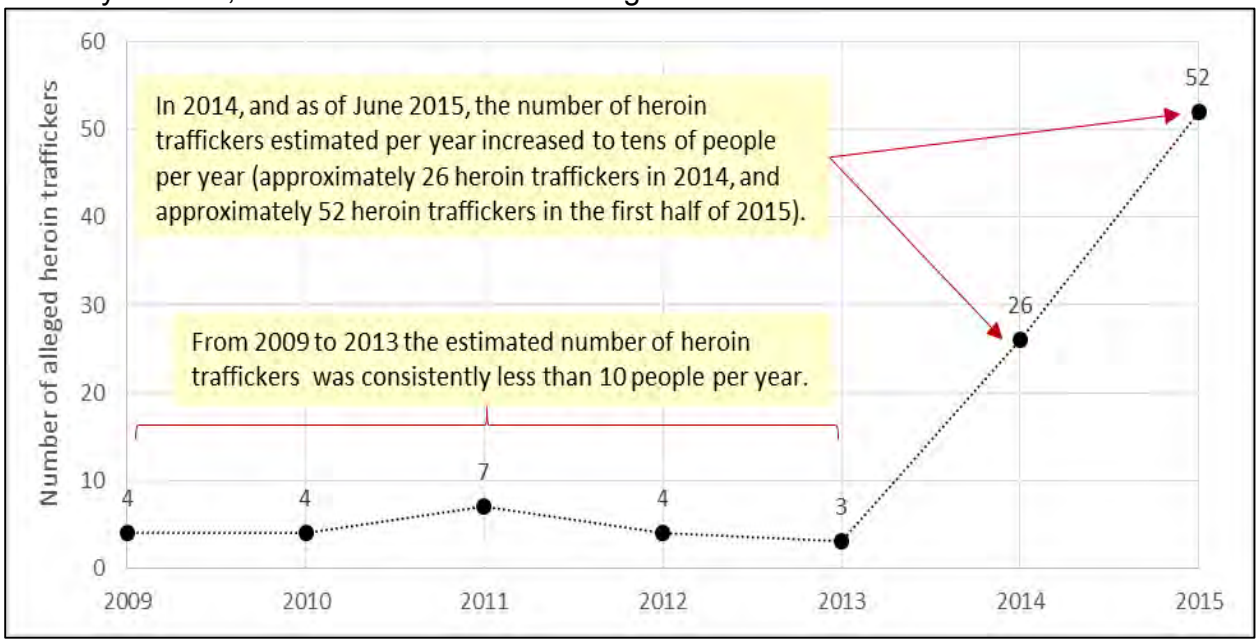


Figure Notes: The number of alleged heroin traffickers were estimated from a review of United States Attorney's Office, Northern District of West Virginia press releases with the word "heroin" in the title and mentioned Berkeley County (or a city in Berkeley County) in the body of the press release. Individuals that were mentioned in more than one press release per year, were only counted once per year. The number of alleged heroin traffickers is likely to increase for 2015; press releases were reviewed in June 2015.

Children of Incarcerated Parents

A related consequence of heroin-related incarceration is the impact to the children of the incarcerated. The two major correctional facilities serving Berkeley County are the Eastern Regional Jail of the West Virginia Regional Jail and Correctional Facility Authority, and the West Virginia Division of Corrections (WVDOC). Individuals with misdemeanor charges and those awaiting sentencing for felony charges are typically sent to Eastern Regional Jail. Once individuals are sentenced with felony charges they are then sent to the WVDOC, where they may be transferred to other institutions. Limited information is available with regard to children with incarcerated parents in West Virginia. In fiscal year 2008, the WVDOC conducted a survey of prisoners as an attempt to address this information gap. The survey results indicated that approximately 53 percent of inmates reported they were parents: 67 percent of female inmates reported having children and 51 percent of male inmates reported having children. The average number of children reported by female inmates was 2.2, and the average number of children reported by male inmates was 2.0 children. The survey also indicated that many of the children were concentrated in Berkeley County (WV DOC 2008).

Treatment Referrals

Individuals can be referred to substance abuse treatment programs by criminal justice systems, or they can be self- or individually referred (SAMHSA 2012b). A source of treatment referrals includes drug courts. The West Virginia Judiciary System has adult and juvenile drug courts in place with the intent of increasing the likelihood of successful rehabilitation and reducing recidivism and substance abuse among offenders. West Virginia drug courts may serve offenders who have been charged with, pled guilty to, or have been found guilty of misdemeanor or felony drug-related offenses, or offenses in which substance abuse is determined to have been a factor in the commission of the offense. Currently, there is a cooperative effort between the United States District Court for the Northern District of West Virginia, the United States Probation Office, and the United States Attorney Office, via a Drug Court Program. The Drug Court Program strives to incorporate the following ten key components for successful drug courts, as identified by the National Association of Drug Court Professionals (NDWV 2015):

1. Drug Courts integrate alcohol and other drug treatment services with justice system case processing.
2. Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.
3. Eligible participants are identified early and promptly placed in the Program.
4. Drug Courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.

5. Abstinence is monitored by frequent alcohol and other drug testing.
6. A coordinated strategy governs Drug Court responses to participants' compliance.
7. Ongoing judicial interaction with each Program participant is essential.
8. Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.
9. Continuing interdisciplinary education promotes effective Program planning, implementation, and operations.
10. Forging partnerships among Drug Courts, public agencies, and community-based organizations generates local support and enhances Drug Court program effectiveness.

Presently, there are no adult drug courts in Berkeley County (WV Judiciary 2015a). There is a juvenile drug court program in Jefferson County that serves Berkeley County (WV Judiciary 2015b). In April 2015, there was a public meeting regarding the need for Berkeley County to have its own drug court (MetroNews 2015). Prosecuting Attorney Pamela Games-Neely was contacted in July 2015, and she described that the outcome of the public meeting was that an operational adult and juvenile drug court is planned to go into effect. On July 30, 2015, following a Berkeley County Council Meeting, it was reported that an additional county prosecutor was approved for hire to handle an adult and juvenile drug court. The anticipated start date was reported as September 1, 2015 (Umstead 2015).

Though drug courts are a source of treatment referrals, the benefits and limitations of drug courts should be considered when understanding their potential for contributing to the overall reduction of the heroin threat in Berkeley County. As past evaluation and research has shown, drug courts can significantly reduce recidivism and substance abuse among high-risk substance abusing offenders. Additionally, if drug courts are implemented correctly, they can concurrently increase the likelihood of successful rehabilitation of the offender and reduce the cost to public that would be later spent on that offender in the criminal justice system (WV Judiciary 2015a). The primary limiting factor though is related to resources. Resources include funding, personnel (counselors, case agents, etc.), and facilities. As a result, only a limited number of individuals can be accepted at a time. For example, caseloads of juvenile court probation officers are generally limited to no more than 30 juvenile drug court cases at a time (WV Judiciary 2015b). Consequently, there can be a gap or wait time for individuals to get into the drug court treatment system.

The Northern District of West Virginia's federal drug court program is comprised of three phases, which are designed to provide each participant with the opportunity to establish a sober and crime-free lifestyle, and takes at least a year to complete (NDWV 2014).

Additionally, as described above, drug courts are targeted toward a specific population. Offenders with a prior felony conviction for a crime of violence, or individuals that are registered sex offenders are not eligible. Ultimately prosecutors and drug court judges have the final authority to decide what individuals may participate in drug court; however, individuals could be excluded from this avenue of treatment due to their criminal history. Likewise, the supplemental availability of treatment programs outside of drug court programs would complement drug court treatment programs and offer an option for offenders excluded from eligibility that still need treatment. Avenues for self- or individually-referred treatment admissions would also allow for individuals not in the criminal justice system to pursue treatment.

Treatment Admissions

Developing an understanding of the characteristics of substance abuse treatment admissions has been found to provide insight into identifying necessary prevention, intervention and expanded treatment efforts for communities (SAMHSA 2012b). The Substance Abuse and Mental Health Services Administration routinely collects and reports data on annual admissions to substance abuse treatment facilities by state for facilities that receive state alcohol and/or drug agency funds, including Federal Block Grant funds. In 2013, heroin was reported as the third most prevalent primary substance of abuse in West Virginia, as illustrated in **Figure 6**.

Figure 6. Substance Abuse Treatment Admissions by Primary Substance of Abuse, West Virginia

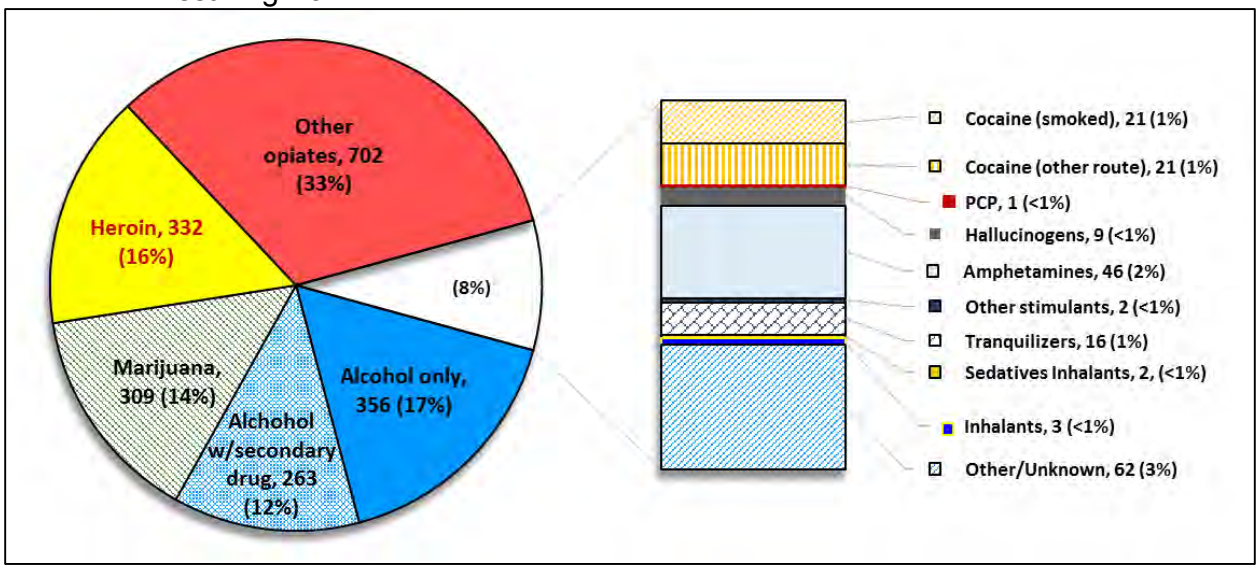


Figure Notes: Data extracted from SAMHSA 2015. Note data is for 2013, data for 2014 and 2015 were not available.

A summary of the corresponding demographics for West Virginia heroin treatment admissions is provided in **Table 3**. In general, rural admissions have been described as being less racially and ethnically diverse, and younger (SAMHSA 2012b). The gender,

race and ethnicity characteristics for West Virginia treatment admissions are consistent with that of characteristics of rural admissions. In contrast, the age range of the admissions more closely represents urban admissions, with close to 70 percent of the admissions falling within the 26 to 49 year age range. Data specific to Berkeley County treatment admissions was not available at the time of this assessment. However, the characteristics of the above breakdown of fatal overdose data for Berkeley and Jefferson Counties are consistent with the state admissions data, indicating that the gender, race, and ethnicity are less diverse, and more similar to rural admissions; and the average ages of the fatal overdose victims are more consistent with urban admissions.

The 2012 SAMHSA publication suggested that urban treatment admissions are more likely to: report primary heroin or cocaine abuse; engage in daily use of their primary substance of abuse; not be in the labor force; be self- or individually referred to treatment; report not having a primary source of income; and be ages 18 or older at first use. Because Berkeley County is one of the most populated counties in West Virginia, it is likely that its treatment admissions demographics are more similar to urban admissions. Additionally, because the age of fatal overdose victims for the 2010-2015 time period ranged from 27 to 49 years old, treatment services and prevention efforts may need to specifically target and address the socioeconomic challenges of individuals in an older age range to ensure that individuals can achieve the stability that supports lasting substance abuse addiction recovery. Based on the fatal overdose data, the majority of victims were employed, but it was unclear whether employment was on a fulltime or part time basis.

Table 3. Percent Break Downs of West Virginia Heroin Treatment Admissions by Demographics

Sex		**Age at Admission**	
Male	52.7%		
Female	47.3%	12-17 years	0.3%
Race		18-20 years	6.6%
White	82.5%	21-25 years	23.5%
Black or African-American	2.7%	26-30 years	28.6%
American Indian or Alaska Native	0.0%	31-35 years	21.7%
Asian or Native Hawaiian or Other Pacific Islander	0.3%	36-40 years	9.6%
Other	0.6%	41-45 years	3.9%
Unknown	13.9%	46-50 years	4.2%
Ethnicity		51+ yrs	1.5%
Hispanic or Latino	0.3%	56-60 yrs	0.0%
Not Hispanic or Latino	97.0%	61-65 yrs	0.0%
Unknown	2.7%	66+ yrs	0.0%

Table Notes: Data extracted from SAMHSA 2015. Note data is for 2013, data for 2014 and 2015 were not available.

Heroin Treatment Program Resources Currently Available

Past studies suggest that the urbanization level of a community can influence the types of substance abuse treatment services available and the use of the services received. In a comparison of rural and urban substance abuse treatment admission published by SAMHSA, it was found that urban drug users are more likely to use heroin than rural drug users, and thus urban treatment programs more often provide services that address heroin treatment (SAMHSA 2012b).

Treatment professionals, citizens, personnel from government agencies, and County Council representatives were interviewed to gather information for this needs assessment. At first glance, it would appear there is a significant amount of treatment services for the county. However, the services are very limited. Berkeley County has 4 centers offering services specializing in drug and alcohol addiction treatment. A summary of the available treatment facilities, type(s) of care, primary focus, etc., is included in **Table 4**. None of these facilities offer specialized programs for individuals with hepatitis C, HIV or AIDS. Because heroin is often injected, hepatitis C, HIV and AIDS among addicts is a concern that requires additional treatment measures. In addition to the four treatment facilities listed, Behavioral Health Services at Berkeley Medical Center and Callahan Counseling offer some limited substance abuse treatment services. The heroin treatment programs presently available in Berkeley County have characteristics similar to that of rural treatment programs, despite the county being one

of the most populous in West Virginia. This indicates that with the available treatment programs, admissions are more likely to receive outpatient care, and are less likely to receive detoxification treatment.

There are basically three categories for drug detoxification. The drug of choice, the dose, duration of use and whether or not other drugs are being abused as well, will require difference options in each category.

- Cold Turkey: ceasing all use with nothing more than medical supervision in case of an emergency,
- Short-Term Medical Detox: ceasing all use, but the availability of medical personnel to provide medications to ease the discomfort of withdrawal, i.e., non-addictive sleep aids to address insomnia, or pain relievers for muscle aches,
- Long-Term Medicated Detox: medical supervision with use of specific medication to prevent the negative effects of withdrawal and cravings. Clients have the option to taper off the medication or continue with maintenance.

Table 4. Treatment Facilities Located in Berkeley County

Facility Name	***Behavioral Health Services of Shenandoah Valley Medical Systems***	***Eastridge Health Systems (Berkeley County Office)***	***Martinsburg Institute***	***CAT 5/Substance Abuse Services (Martinsburg VA Medical Center)***
Type of Care	Outpatient	Outpatient	Outpatient	Residential Short-Term Treatment (30 days or less); Hospital Inpatient; Residential Long-Term Treatment (more than 30 days); Outpatient
Primary Focus	Mental Health Services, Substance Abuse Treatment Services	Mental Health Services, Substance Abuse Treatment Services	Substance Abuse Treatment Services	Substance Abuse Treatment Services
Services Provided	Substance abuse treatment, Detoxification, Buprenorphine Services	Substance abuse treatment, Buprenorphine, Services, Suboxone clinic	Substance abuse treatment, Detoxification, Methadone Maintenance, Methadone Detoxification. Facility provides services for pregnant and postpartum women.	Substance abuse treatment, Detoxification, Buprenorphine Services, Suboxone clinic *Only serves veterans
Treatment Durations	Outpatient services are presently once every other week. There is no set limit on the duration of treatment.	Outpatient services are once per week. Intensive Outpatient 9 hours of treatment services per week. Other than Intensive Outpatient there is no set limit on the duration of treatment.	Decrease from once a week for 3 months to once a month after 12 months. There is no set limit on the duration of treatment.	Residential treatment requires 7 weeks of treatment, and individuals have the option of participating in an additional 10 weeks of treatment. Outpatient program requires 9 hours of treatment during the week; 15 hours are available per week.
Medical Assisted Treatment Slots	2 Doctors to prescribe Buprenorphine	3 Physicians to prescribe Suboxone	8 counselors	13 fulltime employees for inpatient program, 4 part time employees (psychiatrist, psychologist, physician, nurse) for inpatient program
Outpatient Treatment Resources	5 Substance Abuse Counselors	18 counselors, but not all fulltime	Methadone is prescribed for all patients	3 fulltime employees and access to other clinicians as necessary
Treatment Capacity	* Could not define	Serve 2400 a year	440 treatment slots	77 beds for residential treatment; serve 30 to 35 outpatients at a time
Forms of Payment	Self-payment, Medicaid, Medicare, State financed insurance (other than Medicaid), Private health insurance, and Military insurance. Sliding fee scale (fee is based on income and other factors).	Self-payment, Medicaid, Medicare, State financed insurance (other than Medicaid), Private health insurance, and Military insurance. Payment assistance available on case by case basis.	Self-Payment	Self-payment, Private health insurance, and Military insurance.

Needs Assessment for Effective Heroin Treatment Programming:

There are evidence based principles for effective treatment programming in the substance abuse field:

Principles of Effective Treatment (NIDA 2012)

1. Addiction is a complex but treatable disease that affects brain function and behavior.
2. No single treatment is appropriate for everyone.
3. Treatment needs to be readily available.
4. Effective treatment attends to multiple needs of the individual, not just his or her drug abuse.
5. Remaining in treatment for an adequate period of time is critical.
6. Behavioral therapies-including individual, family, or group counseling-are the most commonly used forms of drug abuse treatment.
7. Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.
8. An individual's treatment and services plan must be assessed continually and modified as necessary to ensure that it meets his or her changing needs.
9. Many drug-addicted individuals also have other mental disorders.
10. Medically assisted detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug abuse
11. Treatment does not need to be voluntary to be effective
12. Drug use during treatment must be monitored continuously, as lapses during treatment do occur.
13. Treatment programs should test patients for the presence of HIV/AIDS, hepatitis B and C, tuberculosis, and other infectious diseases as well as provide targeted risk-reduction counseling, linking patients to treatment if necessary.

These principles were designed as a guide for implementing and evaluating substance abuse services. All of the principles are important and some are critical. Drug Addiction is a complex illness characterized by intense and, at times, uncontrollable drug craving, along with compulsive drug seeking and use that persist even in the face of devastating

consequences (NIDA 2009). Add to this, for heroin specifically, repeated use permanently changes the neurochemical and molecular structure of the brain.

The treatment for any addiction requires assessing not only the extent of a person's addiction, but their medical, social, psychological, vocational and legal problems as well. That is why every client must have an individualized treatment plan. It is also why matching treatment settings, interventions, and services to an individual's particular problems and needs is critical to his or her ultimate success in returning to productive functioning in the family, workplace, and society (NIDA 2012). Treatment professionals describe it as giving the "right dosage" of treatment. The right dosage of treatment is determined through a structured interview with a standardized assessment tool, followed by the application of the American Society of Addiction Medicine's six dimensions of placement criteria (ASAM 2015).

A comparison of the resources currently available to the principles of effective treatment presented above and the associated spectrum of treatment presented below confirm the anecdotal statements of the participants of the April 2015 Summit. The information gathered and reviewed for this needs assessment suggest that most of the substance abuse treatment programs in Berkeley County have an insufficient dosage and the county lacks critical elements of a full spectrum of services. Most of the programs are seeing clients once a week in outpatient services. Eastridge Health Systems and the Martinsburg VA Medical Center are the only programs to offer more frequent outpatient services. Eastridge Health Systems offers 12 weeks of nine hours of treatment per week in intensive outpatient services, and the Martinsburg VA Medical Center offers up to 15 hours of treatment per week. However, services at the VA are limited to veterans. Three months of treatment is considered the minimum length required for substance abuse treatment, but generally is not sufficient to effectively treat heroin addiction. For methadone maintenance, 12 months is considered the minimum and some opioid addicted individuals continue to benefit from methadone maintenance for many years (NIDA 2012). Treatment providers have reported similar findings with Buprenorphine.

The treatment for heroin addiction begins with detox and stabilization followed by both behavioral cognitive therapy and medications to suppress the painful effects of withdrawal. Heroin withdrawal symptoms begin to occur approximately 8 to 12 hours after the last dose, and the majority of symptoms occur over approximately 7 to 10 days after use. Detoxification is thought of as the first stage of treatment of heroin addiction (Vaughan, et al. 2015). It is the process that allows the body to get rid of heroin while managing the symptoms of withdrawal (heroin.org 2015).

There are three medications developed to use in the treatment for opioid addictions (NIDA 2014; Drug Rehabs 2015):

- Methadone
- Buprenorphine (Subutex®)
- Naltrexone (Depade ®or Revia ®)

The selection of the type of medication should be based upon the individual's needs and the prescribing physician's evaluation. Methadone and Buprenorphine are available in limited resources in Berkeley County. For the best outcomes, the National Institute on Drug Abuse (NIDA), advocates the combination of pharmacological therapies (e.g. methadone or buprenorphine treatment) with behavioral therapies and support groups. Support groups and behavioral therapies, such as cognitive behavioral therapy or contingency management have shown some efficacy in helping individuals break free from opiate addiction (Drug Rehabs 2015).

Beyond the outpatient services, Berkeley County is missing the full continuum of treatment services. The need for detoxification services and residential treatment was already identified by the Governor for West Virginia's Advisory Council on Substance Abuse. Currently, individuals in need of residential treatment are being sent to programs in Pennsylvania, Morgantown, West VirginiaOut or programs in Virginia. In addition, those referrals only occur for individuals with insurance or some ability to cover the cost of treatment.

The entire spectrum of treatment services include (Parks 2014):

1. Early intervention: It is often initiated by the implementation of SBIRT, Screening, Brief Intervention and Referral to Treatment. With support from SAMHSA, medical personnel around the country are being trained to implement this brief screening tool to quickly assess the severity of substance abuse and identify the appropriate level of treatment.

2. Outpatient Treatment: Is for individuals whose symptoms are not serious enough to interfere with daily activities of living to the point where they need a higher level of services. Individuals are seen by a counselor for group and/or individual counseling one or two times a week.

3. Intensive Outpatient Treatment: Similar to outpatient where individuals receive group and individual counseling, but receive nine hours of services per week. This level is for individuals who are beginning to experience a decline in their ability to handle the daily activities and responsibilities of their life.

4. Residential Treatment: At this level, the individual lives at the treatment facility. The majority of their time in spent in counseling settings and structured activities focused on their recovery. The needs of these individuals require 24 our staff, seven days a week. These individuals cannot abstain and cannot perform the daily functions of the lives.

5. Medically Managed Treatment: This is the most intensive level of care. It takes place in a residential setting where their treatment is medically managed by a

doctor. This level of care is reserved for individuals with biomedical complications due to their substance abuse use to the point where they require medically monitored detox.

Berkeley County is missing three out of the five levels of care, with limited access to Intensive Outpatient Treatment. Berkeley County lacks coordinated early intervention, residential (inpatient) and medically managed treatment (drug detoxification). At the beginning of treatment, heroin addicts generally require residential treatment and medically assisted treatment.

Strategic Planning

The Office of National Drug Control Policy's National Drug Control Strategy advocates that communities adopt a strategic plan to address substance abuse. Successful strategies focus on both the public health and public safety aspects (ONDCP 2014; 2015). Governor Tomblin's Advisory Council on Substance Abuse reflects this concept. The Advisory Council consists of Cabinet level positions in the Department of Health and Human Resources, Department of Military Affairs and Public Safety, and the Department of Veterans Assistance; persons in leadership positions representing the State Police, Chiefs of Police, Sheriffs, Supreme Court, Schools, WorkForce West Virginia, Behavioral Health and Health Facilities; and experts from the fields of behavioral medicine, substance abuse prevention and treatment, the faith-based community, homelessness, domestic violence prevention, and a range of health professionals (GACSA 2013).

Berkeley County would greatly benefit by creating this comprehensive structure to develop and implement an effective strategy. The process begins with leadership, such as Senator Capito's April Summit. Fortunately, there is leadership coming from the Berkeley County Council. County Council President Doug Copenhaver, Council President, Dan Dulyea and County Administrator Alan Davis are taking steps to develop and implement a strategy. Under their direction the county has begun the process to purchase a building to be renovated and used as a Recovery Center. They envision the structure to house a full range of rehabilitative services: substance abuse counseling, family counseling, recovery support groups, job and educational counseling.

They are also approaching various agencies, such as education, health, law enforcement, judges and business representatives to include them in a comprehensive strategy. They realize this effort will require a great deal of coordination. The Council has plans to hire a Program Director to coordinate the variety of services at the Recovery Center. Initially, services at the Recovery Center will be limited to individuals from the new Adult Drug Court and those on probation in Berkeley County. The reason for this is the long range plan for funding. When fully implemented, it is expected that the Recovery Center services will divert individuals from incarceration. The monetary

savings of fewer people in jail will be used to increase services at the Recovery Center and possibly fund levels of treatment not currently available in the county, i.e., detox and inpatient treatment.

Recommendations

1) Support the development and Implementation of the Recovery Center.
    a. Establish an Advisory Board consisting of representatives from:
        i. United States Attorney District of Northern WV
        ii. Berkeley County Prosecutor
        iii. Berkeley County Council
        iv. Martinsburg City Council
        v. Berkeley County Board of Education
        vi. West Virginia University Hospital
        vii. Berkeley County Sheriff's Office
        viii. Berkeley County Chief of Police and local police
        ix. Representatives from the City of Martinsburg Government Agencies
        x. Probation
        xi. Drug Court

    b. Hire a Program Director and Case Manager
    c. Work with West Virginia University Hospital to offer outpatient services at the Recovery Center.
        i. Medically Assisted Treatment
            Offering Outpatient and Intensive Outpatient services
                1. Individual counseling
                2. Group Counseling
                3. Family Counseling

    d. Establish a Day Reporting Program at the Recovery Center
    e. Offices for Probation Agents at the Center
    f. Open up the Center for use by the recovery community, AA and NA.
    g. Establish Education/Job counseling at the center.
    h. Explore the option to offer vocational classes at the center.
    i. Develop Job Placement Partnerships with local businesses.

2) Seek seed money to fund the Recovery Center until such time that criminal justice funds may be reallocated.

3) Support the implementation of the new Drug Courts.
    a. Identify indicators to measure the effectiveness of the Drug Courts,
        i. Recidivism
        ii. Employment

b. Obtain funding for substance abuse treatment services for Drug Court participants.

4) Educate the:
    a. Public on the connection between opiate prescriptions and heroin use,
    b. Public on validity of medically assisted treatment,
    c. Medical profession and citizens on the safe and competent method for prescribing prescription opiates,
    d. Medical profession, other health care workers and educators on SBIRT for early screening,

5) Create a speakers bureau of qualified presenters to inform the public on various aspects of opiate abuse, heroin addiction, substance abuse prevention and the efforts of local law enforcement.

6) Implement evidence based prevention and intervention programs in the schools, grades K – 12.

7) Develop a system to collect the key indicators and set performance measurements.
    a. Use the data in this document as benchmarks
    b. Set reasonable objectives and track implementation

References

In-Text Citation	Reference
ASAM 2015	American Society of Addiction Medicine (2015). What is the ASAM Criteria? Accessed through: http://www.asam.org/publications/the-asam-criteria/about/, July 29, 2015.
CDC 2015	Centers for Disease Control and Prevention (2015). NCHS Data Brief: Number 190, March 2015: Drug-poisoning Deaths Involving Heroin: United States, 2000-2013. Data table for Figure 1. Accessed through: http://www.cdc.gov/nchs/data/databriefs/db190.htm, June 9, 2015.
Census 2015a	United States Census Bureau (2015). State and County QuickFacts: Berkeley County, West Virginia. Accessed through: http://quickfacts.census.gov/qfd/states/54/54003.html, June 9, 2015.
Census 2015b	United States Census Bureau (2015). State and County QuickFacts: West Virginia, Accessed through: http://quickfacts.census.gov/qfd/states/54000.html, June 9, 2015.
Census 2015c	United States Census Bureau (2015). *Maryland QuickFacts:* Population Estimates for all Counties, Accessed through: http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk, June 9, 2015.
DEA 2015	Drug Enforcement Administration (2015). *National Heroin Threat Assessment*, April 2015.
Drug Rehabs 2015	Drug Rehabs (2015). Heroin Addiction Treatment, An overview of the different types of addiction treatment offered to heroin addicts. Accessed through: http://www.drug-rehabs.com/heroin-treatment.htm, July 28, 2015.
GACSA 2013	The Governor's Advisory Council on Substance Abuse (2013). *Progress & Recommendations Report for Governor Earl Ray Tomblin*, 2013, December 31. Accessed through: http://www.governor.wv.gov/media/Documents/GACSA%20Report%202013%20FINAL.pdf, July 30, 2015.
Heroin.org 2015	Heroin Detoxification (2015). Accessed through: http://www.heroin.org/Detox/index.html, July 29, 2015.
MD DHMH 2015	Maryland Department of Health and Mental Hygiene (2015). Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2014, May 2015. Accessed through: http://dhmh.maryland.gov/data/Documents/Annual%20OD%20Report%202014_merged%20file%20final.pdf, June 9, 2015.

McCormick 2015	McCormick, L. (2015). Heroin Trafficking in Berkeley County: Rampant, Devastating…Could Naloxone Be the Answer?" Accessed through: http://wvpublic.org/post/heroin-trafficking-berkeley-county-rampant-devastatingcould-naloxone-be-answer, June 19, 2015.
MetroNews 2015	MetroNews (2015). Drug court coming to Berkeley County, 2015, April 17. Accessed through: http://wvmetronews.com/2015/04/17/drug-court-coming-to-berkeley-county/, July 14, 2015.
NIDA 2014	National Institute on Drug Abuse (2014). *What are the treatments for heroin addiction?* National Institute on Drug Abuse, National Institutes of Health, updated 2014, November. Accessed through: http://www.drugabuse.gov/publications/research-reports/heroin/what-are-treatments-heroin-addiction, July 30, 2015.
NIDA 2012	National Institute on Drug Abuse (2012). *Principles of drug addiction treatment: A research-based guide*. National Institute on Drug Abuse, National Institutes of Health, 2012, December. Accessed through: https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/podat_1.pdf, July 29, 2015.
NIDA 2009	National Institute on Drug Abuse (2009). *Drug Facts: Treatment Approaches for Drug Addiction*. National Institute on Drug Abuse, National Institutes of Health, 2009, September. Accessed through: http://www.drugabuse.gov/sites/default/files/drugfacts_treatmentapproaches.pdf, July 30, 2015.
NDWV 2015	United States District Court, Northern District of West Virginia (2015), *Northern District of West Virginia Drug Court Program*, 2015, May. Accessed through: http://www.wvnd.uscourts.gov/sites/wvnd/files/NDWV%20Drug%20Court%20Program%206-3-15.pdf, August 4, 2015.
ONDCP 2015	Office of National Drug Control Policy (2015). *Policy and Research*. Accessed through: https://www.whitehouse.gov/ondcp/policy-and-research, July 30, 2015.
ONDCP 2014	Office of National Drug Control Policy (2014). *National Drug Control Strategy, 2014*. Accessed through: https://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/ndcs_2014.pdf, July 30, 2015.
Parks 2014	Parks, J., (2014). *Levels of Care in Substance Abuse Treatment.* Accessed through: http://www.soberrecovery.com/addiction/levels-of-care-in-substance-abuse-treatment/, July 30, 2015.
SAMHSA 2015	Substance Abuse and Mental Health Services Administration (SAMHSA) (2015), Treatment Episode Dataset (TEDS) based on administrative data reported by States to TEDS through April 3, 2015: *Substance Abuse Treatment Admissions by Primary Substance of Abuse, According to Sex, Age Group,*

	Race, and Ethnicity. Accessed through: http://wwwdasis.samhsa.gov/webt/quicklink/WV13.htm, June 26, 2014.
SAMHSA 2012a	Substance Abuse and Mental Health Services Administration (SAMHSA) (2012), *Drug Abuse Warning Network, 2010: Area Profiles of Drug-Related Mortality*, May. Accessed through: http://www.samhsa.gov/data/sites/default/files/DAWNMEAnnualReport2010-pdf/DAWN-ME-AnnualReport-2010.pdf, June 29, 2015.
SAMHSA 2012b	Substance Abuse and Mental Health Services Administration (SAMHSA) (2012). A Comparison of Rural and Urban Substance Abuse Treatment Admissions, *The TEDS Report*, July 31. Accessed through: http://www.samhsa.gov/sites/default/files/teds-short-report043-urban-rural-admissions-2012.pdf, June 26, 2015.
Umstead 2015	Umstead, M. (2015). Berkeley County hires attorney as drug court slated to start in September. Herald Mail Media, July 30. Accessed through: http://www.heraldmailmedia.com/news/tri_state/west_virginia/berkeley-county-hires-attorney-as-drug-court-slated-to-start/article_c5bedb2c-3723-11e5-adb4-5383beeec2bc.html, August 3, 2015.
U.S. Attorney's Office 2015	U.S. Attorney's Office, Northern District of West Virginia (2015), *Multi-state heroin trafficking operation based in Baltimore, Maryland fractured by federal indictment,* 2015, June 16. Accessed through: https://www.fbi.gov/pittsburgh/press-releases/2015/multi-state-heroin-trafficking-operation-based-in-baltimore-maryland-fractured-by-federal-indictment, June 18, 2015.
Vaughan, et al. 2015	Vaughan, B. R., & Kleber, H. D. (2015). Opioid Detoxification. *The American Psychiatric Publishing Textbook of Substance Abuse Treatment*. Accessed through: https://books.google.com/books?hl=en&lr=&id=7nLBBwAAQBAJ&oi=fnd&pg=PT395&dq=heroin+detoxification&ots=kufYPyZHwK&sig=QYJoxnh80R16-0e2-VbDc4sDXzM#v=onepage&q=heroin%20detoxification&f=false, July 29, 2015.
WB HIDTA Berkeley DI 2015	Washington/Baltimore HIDTA Berkeley County Drug Initiative, June 9, 2015.
WV DHRR 2015	West Virginia Department of Health and Human Resources (2015). *Heroin Fast Stats*, January 28, 2015. Accessed through http://www.wvdhhr.org/bph/hsc/statserv/Pub.asp?ID=174, June 5, 2015.
WV DOC 2008	West Virginia Division of Corrections, Office of Research and Planning (2008). *Children of Incarcerated* Parents, July. Accessed through: http://www.wvdoc.com/wvdoc/Portals/0/documents/children08.pdf, June 26, 2015.

WV HSC 2015	West Virginia Health Statistics Center (2015).
WV Judiciary 2015a	Supreme Court of Appeals, West Virginia (2015). What is a Drug Court? Accessed through: http://www.courtswv.gov/lower-courts/adult-drug-courts/adult-drug-courts.html, June 30, 2015.
WV Judiciary 2015b	Supreme Court of Appeals, West Virginia (2015). Juvenile Drug Court. Accessed through: http://www.courtswv.gov/lower-courts/juvenile-drug/juvenile-drug-court.html, June 30, 2015.