Washington/Baltimore
High Intensity Drug Trafficking Area

2017 Recidivism Report

The Effect of W/B HIDTA-Funded Substance Abuse Treatment on Arrest Rates of Criminals Leaving Treatment in Calendar Year 2017

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Overview

The Washington/Baltimore High Intensity Drug Trafficking Area (W/B HIDTA) is funded by the White House Office of National Drug Control Policy (ONDCP) in order to address the serious public safety threats arising from the distribution of illegal drugs. Of the 28 HIDTAs in the United States, the W/B HIDTA is the only one that funds substance abuse treatment of criminal offenders. In 2017, twelve W/B HIDTA-funded substance abuse treatment programs were operational in local jurisdictions in Maryland, Virginia, West Virginia, and the District of Columbia.

The current study, which examined arrest rates of individuals discharged by W/B HIDTA-funded substance abuse treatment programs in calendar year 2017, had two purposes. The first was to document whether the substantial reductions in arrest rates found in previous W/B HIDTA annual-cohort studies were replicated for criminal offenders discharged from treatment in 2017. The second purpose was to determine whether individuals who successfully completed treatment had lower rates of criminal recidivism than those who did not succeed in completing treatment.

Method

In previous annual cohort studies conducted by the Institute for Behavior and Health, Inc. (IBH) for the W/B HIDTA from 2002 through 2016, study data were obtained from two sources. The first was a dataset provided by the W/B HIDTA that contained demographic characteristics and treatment information gathered from client records, which was used again in this study. The second consisted of arrest records obtained for each client from the National Crime Information Center (NCIC). This year, however, the W/B HIDTA was not granted access to the NCIC database and could not download arrest records directly as in years past. Therefore, the sites were asked to use resources available to them and to provide as much individual arrest data as possible for the periods one year prior to treatment and one year following treatment. IBH staff coded the arrest data received from the sites and performed statistical comparisons.

Results

Outcomes for the 2017 Cohort

The results of the study indicate that collectively the drug treatment programs funded by the W/B HIDTA reduced drug use and crime among a group of repeat offenders. At treatment intake, the individuals who were discharged from W/B HIDTA-funded treatment in 2017, like their cohorts in previous years, were long-term criminals with an average age in the late thirties who had serious drug use problems.

On average, clients in the 2017 cohort were actively involved in some form of drug treatment for over four months. The programs' flexibility to step up or step down the level of treatment as needed to meet the changing needs of each participant contributed to their ability to keep clients in treatment. In addition, drug testing, the supervision provided to the clients through the parole and probation offices, and the progressive use of stricter sanctions for repeat violations of the terms of their treatment requirements helped ensure that the clients remained drug free.

The lack of access to NCIC arrest data for the 2017 cohort study meant that complete data on pre- and post-treatment arrests and criminal charges could only be obtained for half of the sites. And it is not known how complete this information is since it was collected by site staff, rather than by W/B HIDTA staff as in all previous years.

Nevertheless, the pre-post comparisons for these sites found modest overall reductions in arrests and charges for those who had participated in substance abuse treatment. There was a 6% reduction from the year prior to treatment in the number of individuals arrested, a 27% reduction in the total number of arrests, and a 27% reduction in the number of criminal charges filed against the cohort members. The effects were most pronounced for drug-related crimes, which were reduced 52%, and for property crimes which were reduced 41%. These positive findings are consistent with the results found in evaluations of the W/B HIDTA substance abuse treatment programs for the 2000 to 2016 cohorts; however, the overall reductions in criminal recidivism rates were not as great for the 2017 cohort.

Data from the nine sites that reported whether or not individuals were arrested in the year after treatment indicated a 42% recidivism rate, which was within the range of 35% to 49% found for the five previous annual cohorts. This finding supports the conclusion that participation in drug treatment had an impact on criminal recidivism for the 2017 cohort that was comparable to that found in prior years.

Successful and Unsuccessful Treatment Outcome Groups

The study found that the 169 members of the 2017 cohort who were classified by treatment staff as having successful treatment outcomes (Successful subgroup) differed significantly from the 240 who did not successfully complete treatment (Unsuccessful subgroup) in regard to age and race. On average those in the Successful subgroup were two years older than members of the Unsuccessful subgroup, and there was a significantly greater percentage of African Americans in the Successful subgroup than in the Unsuccessful subgroup. Those in the Successful subgroup were in treatment for an average of 176 days, which was 79 days more than the 97-day average for members of the Unsuccessful subgroup.

For the six sites with both pre- and post-treatment arrest data, 45% of the Successful group and 49% of the Unsuccessful group had been arrested in the year prior to treatment. After discharge, just 32% of the Successful subgroup members were arrested during the one-year follow-up period compared to 52% of those in the Unsuccessful subgroup. The average number of arrests per person during follow-up was 0.56 for the first group and 0.81 for the latter.

Within the Successful subgroup, 29% fewer individuals were arrested during the one-year follow-up period than in the year prior to treatment, and this group also had 45% fewer arrests and 47% fewer criminal charges at follow-up. In contrast, the Unsuccessful subgroup had an *increase* of 7% in the number of individuals arrested, a 14% decrease in the number of arrests, and a 10% reduction in the number of criminal charges. These findings support the hypothesis that providing substance abuse treatment to offenders and helping them remain in treatment until completion can significantly reduce criminal recidivism.

I. Introduction

In 1994, the White House Office of National Drug Control Policy (ONDCP) designated the Washington/Baltimore area a High Intensity Drug Trafficking Area (HIDTA) in order to address serious public safety threats arising in the region from the distribution of illegal drugs. This 27-jurisdiction HIDTA—which includes the cities of Baltimore and Washington as well as other sizable cities, suburban areas, small cities, and some traditionally rural areas in Maryland, Virginia, and West Virginia—has experienced serious problems with illegal drug use and drug-related crime, especially involving heroin, crack cocaine, cocaine, and diverted prescription drugs.

The W/B HIDTA focuses its efforts on: 1) reducing the number of drug trafficking organizations through intelligence-driven law enforcement operations, 2) assisting local governments in implementing effective drug treatment programs for hard-core offenders, 3) promoting innovative prevention programs involving partnerships between law enforcement agencies, community organizations, and local government, and 4) reducing the levels of drug-related violence and crime within the W/B HIDTA region.

The W/B HIDTA Treatment/Criminal Justice Initiative

Of the 28 HIDTAs in the United States, the W/B HIDTA is the only one that funds substance abuse treatment of criminal offenders. It provides annual funding to local jurisdiction treatment programs in Maryland, Virginia, West Virginia, and the District of Columbia for hard-core offenders. These programs are based on scientific principles of effective interventions, including the use of the following:

- Clinical assessments to determine appropriate placement in treatment services;
- Cognitive behavioral treatment, social restructuring, and contingency management interventions;
- Compliance-gaining strategies to encourage the offender's completion of treatment and compliance with supervision requirements;
- Procedural justice concepts to deter drug use and criminal behavior;
- Drug testing to monitor program compliance; and
- Treatment interventions that last a minimum of six months and provide a continuum of care comprising at least two levels.

Using these general principles of effective intervention, each local jurisdiction has developed its own unique substance abuse treatment program designed both to meet the needs of the population served and to integrate the treatment program seamlessly with other local substance abuse services. W/B HIDTA funds are used by the jurisdictions to enhance their existing treatment programs, to extend their levels of care, and to support the use of drug testing and progressive sanctions for any continued illegal drug use. Supervision by probation or parole officers is an additional, necessary aspect of the seamless and coerced treatment experience.

Prior Evaluations of W/B HIDTA-Funded Substance Abuse Treatment Programs

Because the W/B HIDTA is unique among HIDTAs in its funding of substance abuse treatment, there is substantial interest in the performance of the program. A primary area of interest is the extent to which the program reduces criminal behavior of those who have received

treatment. Previous studies examined the pre- and post-treatment arrest rates for criminals who participated in W/B HIDTA-funded substance abuse treatment programs in calendar years 2000 through 2016 (DuPont et al., reports 2002 through 2018). For each year's cohort, the number of arrests in the year immediately prior to treatment was compared to the number of arrests in the year after they either entered or completed treatment. The studies consistently found that for each cohort the number of arrests during the follow-up period was substantially lower than in the pre-treatment period with the percentage of reduction ranging from 25% to 52%. The studies also found that the number of individuals arrested during the follow-up period was 30% to 47% less than in the year prior to treatment.

Washington/Baltimore HIDTA Sites

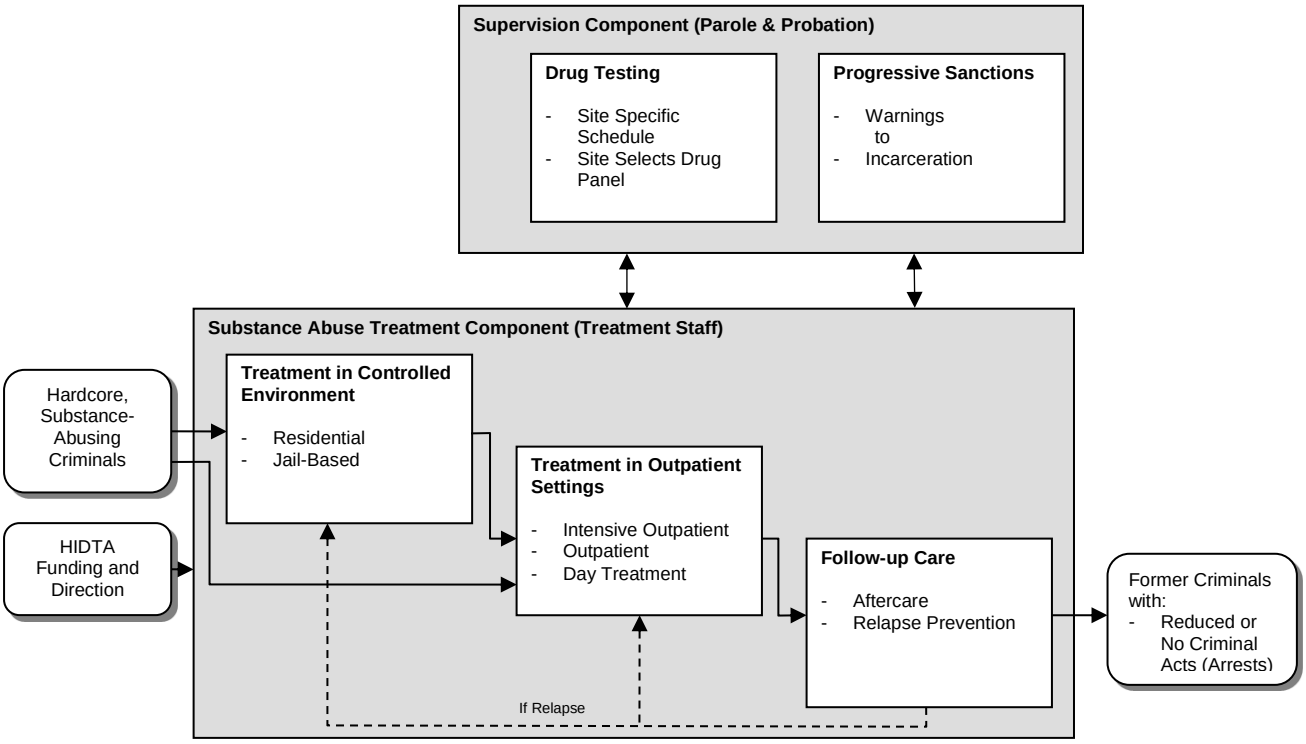
Twelve of the 27 W/B HIDTA-designated jurisdictions operated HIDTA-funded substance abuse treatment programs in 2017: Alexandria City, Arlington County, Fairfax County, Northern Shenandoah Valley, Prince William County, City of Richmond, and the Virginia Department of Corrections in Virginia; Anne Arundel County, Baltimore City, and Prince George's County in Maryland; the District of Columbia; and Berkeley County in West Virginia.[1] Each jurisdiction used W/B HIDTA funds to provide drug treatment services either directly or through contracts with local substance abuse service providers.

Figure 1 is a logic model that illustrates, in general, how the W/B HIDTA program is designed to work. The program has two major components: 1) substance abuse treatment delivered by local providers and 2) supervision provided by probation and parole offices. Each site identifies and enrolls criminals with substance abuse histories who might benefit from such a program. As determined by the program and by the individual's needs, a program participant may begin treatment in either a controlled environment, such as a jail or residential treatment facility, or in an outpatient setting. Each program has the capacity to "step down" treatment to a less intensive level of care if the client makes sufficient progress or to "step up" treatment if there is a relapse or other problem. The probation and parole offices that are responsible for supervising criminals released to the community are also responsible for drug testing these individuals and applying sanctions, which become more stringent if there are repeated drug test failures or program infractions. Through this combination of treatment and supervision, the primary result of the program should be that there are few or no criminal acts committed by these individuals following treatment.

Based on this general model, each jurisdiction developed one or more model substance abuse treatment programs for offenders involving a minimum of six months treatment and at least two levels of care. The ten sites can be grouped by four different continuum-of-care models as follows: (a) Residential/Outpatient, (b) Intensive Care Facility/Outpatient, (c) Intensive Outpatient/Outpatient, and (d) Jail-Based Treatment/Outpatient (Taxman, Kubu, DeStefano, 1999). All approaches could also include detoxification and inpatient care. In each model, the offender began treatment in a controlled setting such as residential treatment or a relatively structured treatment, such as intensive outpatient treatment, and then moved to the next appropriate level of care. Program staff determined the pace and timing of progress according to individual readiness.

[1] 2017 was the first year in which the W/B HIDTA funded treatment services in the Northern Shenandoah Valley. Individual-level data on clients served and criminal recidivism were not available from this site; therefore, it is not included in this annual study.

Figure 1
General Logic Model for W/B HIDTA Substance Abuse Treatment



All W/B HIDTA substance abuse treatment interventions included drug testing and graduated sanctions. The frequency of drug testing varied from site to site, by provider, and for individual offenders. Some providers tested monthly, some weekly, and some twice a week. Others conducted tests at random intervals. Each jurisdiction employed graduated sanctions to promote effective responses when participants failed to comply with the conditions of treatment and release. Individuals in treatment received increasingly severe sanctions for each additional infraction, ranging from verbal warnings and increased supervision to incarceration and judicial action. As with the frequency of testing, the type of sanction varied from site to site (Taxman and Cronin, 2000).

Purpose of the Study

The current study, which examined arrest rates of individuals discharged by W/B HIDTA-funded substance abuse treatment programs in calendar year 2017, had two purposes. The first was to document whether the substantial reductions in arrest rates found in previous W/B HIDTA annual-cohort studies were replicated for criminal offenders who were discharged from treatment in 2017. The second purpose was to determine whether individuals who successfully completed treatment had lower rates of criminal recidivism than those who did not succeed in completing treatment.

Table 1
Treatment Modalities for W/B HIDTA 2017 Cohort Sites

Site	Treatment Modality Description
Alexandria City	Intensive Outpatient Outpatient Short-term Residential Residential Detox Other
Anne Arundel County	Intensive Outpatient Outpatient Detox Halfway House Residential Other
Arlington County	Jail-based Treatment Outpatient Residential Aftercare
Baltimore City Drug Court	Intensive Outpatient Outpatient Residential
Berkeley County	Intensive Outpatient Outpatient Detox Other
District of Columbia	Residential Transitional Living/Halfway House Outpatient Other
Fairfax County	Intensive Outpatient Outpatient Residential Aftercare
Northern Shenandoah Valley	Intensive Outpatient Outpatient Other
Prince George's County	Residential Outpatient
Prince William County	Residential Intensive Outpatient Outpatient Medicated Assisted Treatment Aftercare
Richmond City	Jail-based Treatment Residential Outpatient Aftercare
Virginia Department of Corrections (VADOC)	Residential Detoxification Intensive Outpatient Aftercare

II. Method

In previous annual cohort studies from 2002 through 2016, study data were obtained from two sources. The first was a dataset provided by the W/B HIDTA that contained demographic characteristics (date of birth, gender, and race) and treatment information (admission and discharge dates and completion status) gathered from client records. The second consisted of arrest records obtained for each client from the National Crime Information Center (NCIC). This year, however, the W/B HIDTA was not granted access to the NCIC database and could not download arrest records directly as in years past. Therefore, the sites were asked to use resources available to them and to provide as much individual arrest data as possible. Table 2 summarizes the data sources used and the types of arrest data collected from each site.

Table 2
Data Sources by Site for the W/B HIDTA 2017 Treatment Discharge Cohort

		One-year Pre-treatment Period				One-year Post-treatment Period			
Site	**Tx Outcome**	**N of Clients Arrested**	**N of Arrests**	**N of Charges**	**Type of Charges**	**N of Clients Arrested**	**N of Arrests**	**N of Charges**	**Type of Charges**
Alexandria City	a					b			
Anne Arundel County	a	c	c	c	c	c	c	c	c
Arlington County	a					d	d	d	d
Baltimore City	a	c	c	c	c	c	c	c	c
Berkeley County	a	e	e	e	e	e	e	e	e
District of Columbia	a	f	f	f		f	f	f	
Fairfax County	a					g			
N. Shenandoah Valley									
Prince George's County	a	h	h	h	h	h	h	h	h
Prince William County	a								
Richmond	a	i	i	i	i	i	i	i	i
Virginia DOC	a								
Number of Sites	**11**	**6**	**6**	**6**	**5**	**9**	**7**	**7**	**6**

SOURCES:
a – Sites' program treatment records (W/B HIDTA Dataset)
b – Site reported if the individual had any new charges prior to release from probation following treatment
c – Site searched Maryland Judiciary Case Search system (public access)
d – Site reported all new charges in the year since treatment completion
e – Site documented number of arrests and number and types of charges one year before and after treatment
f – Site reported numbers of arrests and charges one year before and after treatment
g – Site reported whether the individual had any new charges in year since treatment completion
h – IBH searched Maryland Judiciary Case Search system (public access)
i – Site searched Virginia public access criminal records database

Arrest data were collected for two one-year periods. Pre-treatment arrests were recorded for the twelve months immediately preceding the individual's admittance into W/B HIDTA-funded treatment – unless treatment began in a jail or prison, in which case the pre-treatment period was one year prior to the date of incarceration. For community-based programs, the relevant time period for following up on post-treatment arrests was one year from the date of discharge from W/B HIDTA treatment. For jail-based programs, the follow-up period was one year from the date that the treated individual was released to the community.

For the 2017 cohort, three types of criminal recidivism indicators were examined in the study: 1) the numbers of individuals in the cohort arrested before and after treatment; 2) their

total numbers of pre- and post-treatment arrests; and 3) the total numbers of criminal charges filed against these individuals during the two periods. In addition, treatment site staff reported whether these individuals had successfully completed treatment (Successful outcome), had been discharged without successfully completing treatment (Unsuccessful outcome), or had left the program under other circumstances, such as transfer to another jurisdiction (Other). Pre- and post-treatment arrest rates were compared for the Successful and Unsuccessful completers

As shown in Table 2, pre- and post-treatment arrest data were available for six of the sites, three others had only post-treatment arrest data, and three could not provide any arrest records. Data from available arrest records and the W/B HIDTA dataset were analyzed using SPSS statistical software. The analyses included: frequency distributions of demographic and treatment variables; cross tabulations by jurisdiction on these variables; and analyses of criminal recidivism. A detailed description of the study methodology, discussing data issues and how they were resolved, appears in Appendix A.

III. Findings

2017 W/B HIDTA Discharge Cohort

Eleven of the 12 sites that had W/B HIDTA-funded substance abuse treatment programs provided information on the number of clients treated and their treatment outcomes. The evaluation sample for calendar year 2017 included a total of 409 individuals discharged from the eleven sites. Site staff classified 169 of these cases (41%) as Successful, meaning that the clients had successfully completed their drug treatment programs, and 240 cases (59%) as Unsuccessful because the clients had failed to complete treatment. As shown in Table 3, the degree of successful completion varied by site, ranging from a 91% success rate in Fairfax County to 22% for Berkeley County.

Table 3

2017 Discharges. Number of treatment discharges for each site and the percentage classified as Successful or Unsuccessful.

Site	Number of Discharges	Percent of Discharges by Type	
		Successful	Unsuccessful
Alexandria City	22	36%	64%
Anne Arundel County	15	80%	20%
Arlington County	19	84%	16%
Baltimore City	80	31%	69%
Berkeley County	125	22%	78%
District of Columbia	27	74%	26%
Fairfax County	22	91%	9%
Prince George's County	21	81%	19%
Prince William County	31	23%	77%
Richmond	12	58%	42%
Virginia DOC	35	26%	74%
TOTAL	**409**	**41%**	**59%**

Source: W/B HIDTA dataset

Table 4 lists for each jurisdiction the number of individuals who constituted the 2017 discharge cohort. On average, each site discharged from treatment about 37 clients, ranging from 12 in Richmond to 125 in the Berkeley County. Clients in the latter site, the largest of the eleven programs, accounted for 31% of the annual cohort.

Table 4
Discharge Cohort for 2017 W/B HIDTA Study

Site	Discharge Group		2017 Cohort	
	Successful	Unsuccessful	Total	Percent
Alexandria City	8	14	22	5%
Anne Arundel County	12	3	15	4%
Arlington County	16	3	19	5%
Baltimore City	25	55	80	20%
Berkeley County	28	97	125	31%
District of Columbia	20	7	27	7%
Fairfax County	20	2	22	5%
Prince George's County	17	4	21	5%
Prince William County	7	24	31	8%
Richmond	7	5	12	3%
Virginia DOC	9	26	35	9%
TOTAL	**169**	**240**	**409**	**100%**

Source: W/B HIDTA dataset

Characteristics of the 2017 Cohort

Age, Gender, and Race. The average age at admission to treatment for clients exiting W/B HIDTA-funded treatment in 2017 was 36 years. Participants ranged in age from 19 to 62 years. On average, Successful subgroup members were two years older than those in the Unsuccessful subgroup, which was a statistically significant difference.[2] A large majority of participants (73%) were male. Caucasians (56%) constituted the largest racial group, followed by African Americans (40%). Approximately 1% of each subgroup was classified as Hispanic. There were significantly greater percentages of African Americans in the Successful subgroup than in the Unsuccessful subgroup.[3]

Table 5
Gender, Race, and Age of the 2017 W/B HIDTA Cohort

Demographic		Successful (n=169)	Unsuccessful (n=240)	Total Cohort (n=409)
Gender	Male	72%	74%	73%
	Female	28%	26%	27%
Race	African American	47%	36%	40%
	Caucasian	48%	62%	56%
	American Indian	0%	<1%	<1%
	Asian/Pacific Islander	0%	0%	0%
	Other	5%	2%	3%
Age	Mean Age (years) Range	37 20-62	35 19-62	36 19-62

Source: W/B HIDTA dataset

[2] Age difference ($t = 2.54$, $df = 407$, $p<.05$).
[3] Racial difference (chi-square = 4.91, df=1, <.05).

As shown in Table 6, participants in Anne Arundel County and Prince William County were significantly younger at treatment intake (31 years old on average) than participants from the District of Columbia (42 years). In all sites except Alexandria (32%) and Richmond (25%) the majority of participants were male, ranging from 53% (Arlington) to 94% (Anne Arundel). The racial distribution of clients varied greatly from site to site. In six sites the majority was African American (51%-96%); in the other five the majority was Caucasian (68%-87%).

Table 6
Age, Gender, and Race by Site

Site	N	Mean Age	Percent Male	Race		
				African American	Caucasian	Other
Alexandria City	22	37	32%	59%	36%	5%
Anne Arundel County	15	31	93%	13%	87%	0%
Arlington County	19	39	53%	32%	68%	0%
Baltimore City	80	39	84%	63%	36%	1%
Berkeley County	125	33	72%	15%	84%	1%
District of Columbia	27	42	89%	96%	4%	0%
Fairfax County	22	35	77%	18%	68%	14%
Prince George's County	21	36	91%	71%	10%	19%
Prince William County	31	31	77%	13%	74%	13%
Richmond	12	37	25%	67%	33%	0%
Virginia DOC	35	38	69%	51%	49%	0%
OVERALL	**409**	**36**	**73%**	**40%**	**56%**	**4%**

Source: W/B HIDTA dataset

Comparison to Cohorts from Five Previous Years. Table 7 indicates that each year since 2012 the treatment population has been predominantly male (70% to 76%), averaging between 36 to 38 years of age at intake. There has been a continuous trend across all cohorts for a greater percentage of Caucasians to be involved in HIDTA-funded treatment each year, increasing from 28% in 2012 to become a majority (56%) in 2017.

Table 7
Demographic Comparisons of W/B HIDTA 2012-2017 Cohorts

Demographic	2012 (n=327)	2013 (n=370)	2014 (n=303)	2015 (n=283)	2016 (n=404)	2017 (n=409)
Mean Age (years)	38	38	38	38	37	36
Male	74%	74%	70%	73%	76%	73%
African American	69%	68%	62%	58%	53%	40%
Caucasian	28%	30%	37%	40%	46%	56%

Sources: W/B HIDTA dataset for 2017 data; DuPont et al. (2018) for 2011-2016 data

Duration of Treatment

The overall average length of stay in treatment for the 2017 cohort was 125 days. Within the cohort, the 169 individuals classified by site staff as Successful in completing the overall treatment program were treated for an average of 176 days; the 240 rated as Unsuccessful in their treatment were treated an average of 97 days. The 79-day difference in length of treatment was statistically significant ($t = 6.86$, $df = 407$, $p<.001$). Table 8 indicates that across the various sites the average duration of treatment for Successful clients ranged from 44 to 489 days. For the Unsuccessful group, the range in average across sites was from 29 to 211 days.

Table 8
Average Days of Treatment for Successful and Unsuccessful Treatment Outcome Groups

Jurisdiction	Successful		Unsuccessful	
	N	Avg. Days of Treatment	N	Avg. Days of Treatment
Alexandria City	8	313	14	148
Anne Arundel County	12	87	3	92
Arlington County	16	203	3	40
Baltimore City	25	148	55	40
Berkeley County	28	236	97	94
District of Columbia	20	44	7	40
Fairfax County	20	75	2	110
Prince George's County	17	43	4	29
Prince William County	7	472	24	120
Richmond	7	271	5	74
Virginia DOC	9	489	26	211
OVERALL	**169**	**176**	**240**	**97**

Source: Reported by site

Overall Recidivism Rates for the 2017 Cohort

Although collected from different sources, six of the sites had arrest data for both the pre- and post-treatment periods that included: number of individuals arrested, total number of arrests per individual, and total number of criminal charges. Overall recidivism statistics were computed for the 280 individuals from these six sites, regardless of whether treatment was judged to be successful or unsuccessful. This was so that their overall recidivism results could be compared to results for cohorts from previous years.

Table 9 indicates that 132 of the 280 individuals (47%) had been arrested at least once during the year before entering treatment. During the one-year follow-up period, 124 (44%) of these individuals were arrested. The overall reduction in the number of individuals arrested before and after treatment was 6%.

Table 9

2017 Cohort. Comparison of the number of ***individuals arrested*** at each site, and total for all sites, in the year before and the year after treatment at six W/B HIDTA treatment sites.

Site	N	Number of Individuals Arrested in the Year Prior to HIDTA Treatment	Number of Individuals Arrested in the Year After HIDTA Treatment	Change in Number of Individuals Arrested	Percent Change in Number of Individuals Arrested[4]
Anne Arundel County	15	5	6	1	20%
Baltimore City	80	38	35	-3	-8%
Berkeley County	125	52	59	7	13%
District of Columbia	27	16	13	-3	-19%
Prince George's County	21	10	6	-4	-40%
Richmond	12	11	5	-6	-55%
TOTAL	**280**	**132**	**124**	**-8**	**-6%**

Source: See Table 2

Table 10 shows that the 280 individuals had a total of 271 arrests in the year before entering treatment, an average of 0.97 arrests per person. During the one-year follow-up period, these same individuals had a total of 199 arrests, an average of 0.71 arrests per person, and a 27% reduction in arrests compared to the pre-treatment period.

Table 10

2017 Cohort. Comparison of the number of ***arrests*** for each site, and total for all sites, in the year before and the year after treatment at six W/B HIDTA treatment sites.

Site	N	Number of Arrests in the Year Prior to HIDTA Treatment	Number of Arrests in the Year After HIDTA Treatment	Change in Number of Arrests	Percent Change in Arrests
Anne Arundel County	15	13	10	-3	-23%
Baltimore City	80	74	62	-12	-16%
Berkeley County	125	88	79	-9	-10%
District of Columbia	27	32	25	-7	-22%
Prince George's County	21	18	13	-5	-28%
Richmond	12	46	10	-36	-78%
TOTAL	**280**	**271**	**199**	**-72**	**-27%**

Source: See Table 2

[4] Percent change is calculated in this and subsequent tables by subtracting the number for the year prior to treatment from the number for the year after treatment and dividing the result by the number for the year prior to treatment. The fractional result is multiplied by 100 to obtain a percentage (Fox et al. 1999).

Table 11 indicates that after treatment the total number of criminal charges per year brought against the 2017 cohort members from these six sites was cut by 27% (from an average of 1.76 charges per person to 1.28). Moreover, this number represents a total of 134 fewer chargeable offenses committed in the community during the follow-up period than before treatment.

Table 11

2017 Cohort. Comparison of the number of ***charges*** for each site, and total for all sites, in the year before and the year after treatment at six W/B HIDTA treatment sites.

Site	N	Number of Charges in the Year Prior to HIDTA Treatment	Number of Charges in the Year After HIDTA Treatment	Change in Number of Charges	Percent Change in Charges
Anne Arundel County	15	17	22	5	29%
Baltimore City	80	158	114	-44	-28%
Berkeley County	125	136	141	5	4%
District of Columbia	27	43	42	-1	-2%
Prince George's County	21	64	29	-35	-55%
Richmond	12	75	11	-64	-85%
TOTAL	**280**	**493**	**359**	**-134**	**-27%**

Source: See Table 2

Five of the six sites above had arrest data for both the pre- and post-treatment periods that included the types of criminal charges. The exception was the District of Columbia. Table 12 shows that the greatest absolute change was in the number of charges for drug-related crimes, which were down by 52%, as well as the 41% reduction in property crimes. Charges for public order crimes, such as disturbing the peace and gambling, and for Other crimes were up 13%. Charges for technical crimes such as violation of probation or parole were reduced by 6%. There were 3 fewer violent crimes committed during the follow-up period than the 24 recorded in the year before treatment.

Table 12

2017 Cohort. Frequency of ***charges by offense*** before and after treatment for five sites.

Offense Type	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
Drug Crimes	152	73	-79	-52%
Violent Crimes	24	21	-3	-13%
Property Crimes	137	81	-56	-41%
Public Order	63	71	8	13%
Technical	66	62	-4	-6%
Other	8	9	1	13%
TOTAL	**450**	**317**	**-133**	**-30%**

Source: See Table 2

Table 13 summarizes the criminal recidivism data for the 2017 cohort and compares it to the data for the five previous annual cohorts that participated in W/B HIDTA-funded substance abuse treatment programs (from DuPont et al., 2018).

Table 13

2012-2017 Cohorts. Summary of reductions in numbers of individuals arrested and total numbers of arrests and criminal charges before and after treatment.

COHORTS	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
2012 Cohort (n=327)				
Individuals Arrested	181	116	-65	-36%
Number of Arrests	337	192	-145	-43%
Number of Charges	578	316	-262	-45%
2013 Cohort (n=370)				
Individuals Arrested	207	166	-41	-20%
Number of Arrests	387	289	-98	-25%
Number of Charges	659	483	-176	-27%
2014 Cohort (n=303)				
Individuals Arrested	179	124	-55	-31%
Number of Arrests	365	203	-162	-44%
Number of Charges	656	329	-327	-50%
2015 Cohort (n=283)				
Individuals Arrested	184	104	-80	-43%
Number of Arrests	415	198	-217	-52%
Number of Charges	663	334	-329	-50%
2016 Cohort (n=404)				
Individuals Arrested	279	199	-80	-29%
Number of Arrests	597	334	-263	-44%
Number of Charges	1066	621	-445	-42%
2017 Cohort (n=280)*				
Individuals Arrested	132	124	-8	-6%
Number of Arrests	271	199	-72	-27%
Number of Charges	493	359	-134	-27%

Source: 2012-2016: NCIC arrest records; 2017: see Table 2

***Statistics for the six sites that provided complete pre- and post-treatment arrest data

The overall recidivism results for the 2017 cohort, based on data from six sites, were consistent with findings from the five previous years in that arrest rates declined after treatment; however, the effects were not as strong as in previous years:

- 6% fewer 2017 cohort members were arrested during the follow up period than in the year before treatment. This was considerably less than the 20% to 43% reductions found for the earlier cohorts.
- There were 27% fewer arrests during follow up for the 2017 cohort, which was less than the 43-52% reductions found for four of the previous cohorts.

- The number of crimes 2017 cohort members were charged with declined by 27% after they had received substance abuse treatment, which was the same as for the 2013 cohort, but not as big a reduction as was found for four of the previous cohorts (42% to 50%).
- For all cohorts, including the 2017 cohort, there have been significant reductions in criminal charges for drug-related crimes, usually in the 50% to 70% range. For the 2017 cohort the percentage reduction was 52%.

Recidivism Rates for Successful and Unsuccessful Treatment Outcome Groups

Of the 280 cohort members from the six sites with complete arrest data a total of 109 clients (39%) were classified by staff as having Successful treatment outcomes and 171 were classified as Unsuccessful (61%). Table 14 summarizes the pre- and post-treatment arrest data for both groups. For the Successful group, 29% fewer individuals were arrested during the one-year follow-up period than in the year prior to treatment, and this group also had 45% fewer arrests and 47% fewer criminal charges at follow-up. In contrast, the Unsuccessful group had a 7% *increase* in the number of individuals arrested, a 14% decrease in the number of arrests, and a 10% reduction in the number of criminal charges. These findings indicate that successful completion of substance abuse treatment has a strong positive effect in reducing subsequent criminality.

Table 14

Treatment Outcome Groups. Summary of reductions in numbers of individuals arrested and total numbers of arrests and criminal charges before and after treatment at six W/B HIDTA treatment sites.

Treatment Outcome	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
Successful (n=109)				
Individuals Arrested	49	35	-14	-29%
Number of Arrests	111	61	-50	-45%
Number of Charges	228	121	-107	-47%
Unsuccessful (n=171)				
Individuals Arrested	83	89	6	7%
Number of Arrests	160	138	-22	-14%
Number of Charges	265	238	-27	-10%

Source: See Table 2

Figure 2 highlights the degree to which successful completion of treatment helped reduce the number of individuals arrested. In the year prior to treatment, 45% of the Successful group and 49% of the Unsuccessful group had been arrested. At follow-up, the percentage of those arrested dropped to 32% for the Successful group but increased to 52% for the Unsuccessful treatment completers. Figures 3, 4, and 5, which use data from Table 14 above, provide further visual evidence of the pre- and post-treatment differences in arrests for the two groups.

Figure 2
Percentage of Individuals Arrested
Before and After Treatment

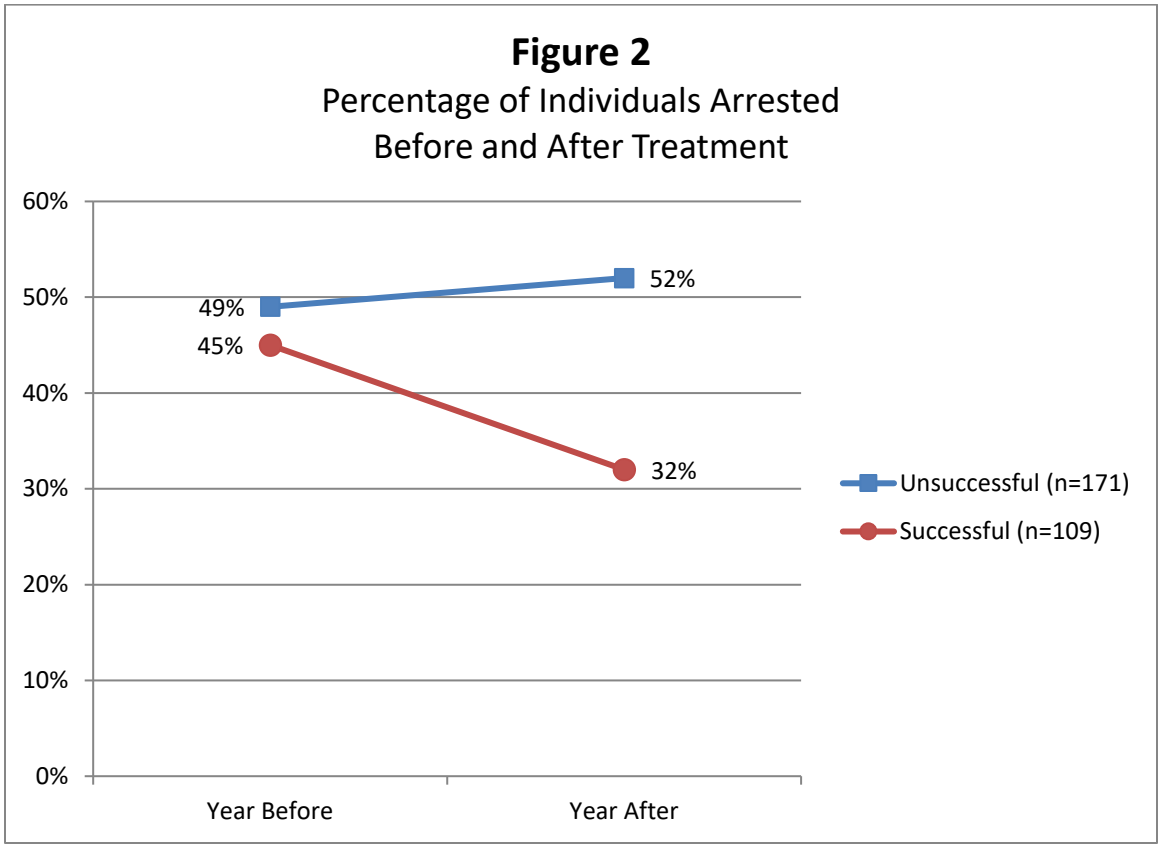


Figure 3
Number of Individuals Arrested
Before and After Treatment

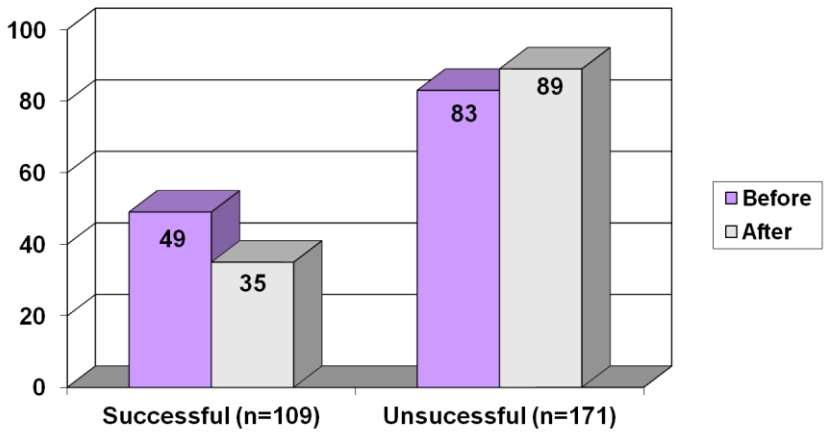


Figure 4
Number of Arrests
Before and After Treatment

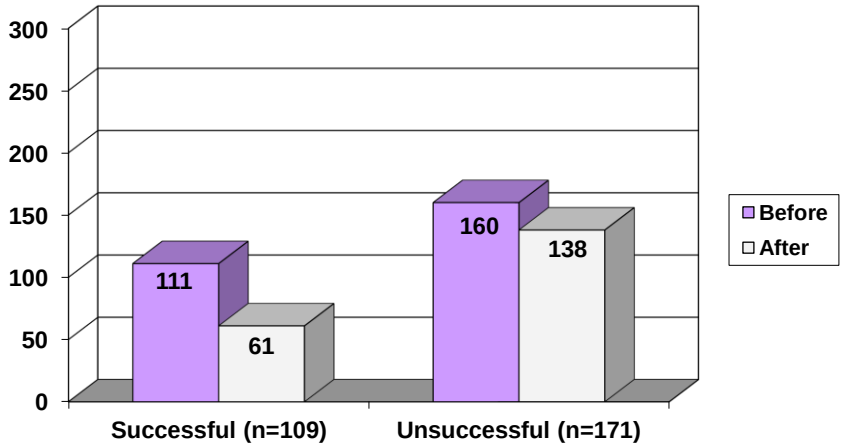
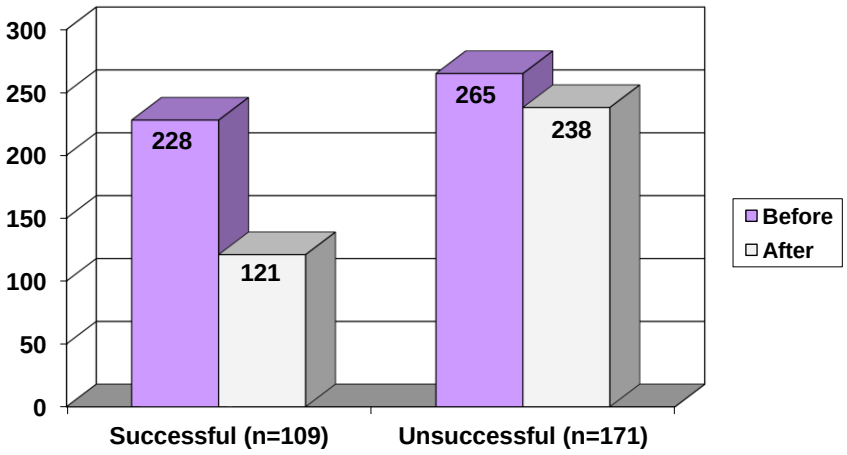


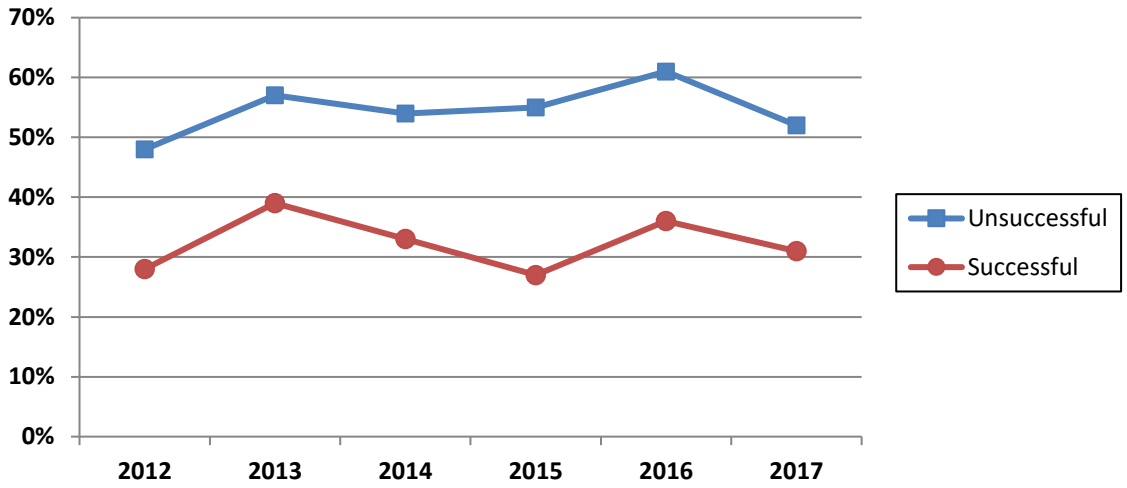
Figure 5
Number of Criminal Charges
Before and After Treatment



For the six sites combined, Successful treatment subjects averaged 1.02 arrests per person prior to treatment and 0.56 arrests during the follow-up year, compared to 0.94 pre-treatment arrests and 0.81 post-treatment arrests for the Unsuccessful treatment subjects. Similarly, the average number of criminal charges across all sites declined from 2.09 to 1.11 for the Successful group and from 1.55 to 1.39 for the Unsuccessful group.

Figure 6 shows the recidivism rate for individuals in the year following treatment for the 2017 cohort and for the five most recent W/B HIDTA annual cohorts. For this analysis the number of individuals arrested post-treatment was available for 9 of the 12 sites (see Table 1). There were a total of 153 in the Successful treatment group and 190 in the Unsuccessful group.

Figure 6
Percentage of Individuals Arrested
in Year After Treatment by Cohort



For those who successfully completed treatment, the recidivism rate in four of the past five years had consistently been around 30% for each cohort, ranging from 27% to 36%.[5] The 31% recidivism rate for the Successful treatment group in this year's cohort was within this range. In each of the previous five years, the recidivism rate for the Unsuccessful treatment group, ranging from 48% to 61%, had been considerably higher than that for the Successful group. This trend continued for the 2017 cohort as the Unsuccessful group had a recidivism rate of 52%, which was 21 percentage points higher than for the Successful group.

Tables 15 and 16 document for the five 2017 sites with available data the frequency of charges by offense before and after treatment for the Successful and Unsuccessful Outcome Groups respectively. For those who successfully completed treatment, the number of criminal charges was reduced substantially during follow-up for drug crimes (-74%), property crimes (-52%), and technical offenses (-57%), such as probation and parole violation. Public order crimes

[5] The overall recidivism rate for Successful clients was elevated in the 2013 cohort due to one of the larger sites having a higher-than-average recidivism rate. The other nine sites had a combined rate of 30% (DuPont et al., 2015).

increased by 50%. There were two more violent crimes and three more other miscellaneous crimes.

Table 15

Successful Outcome Group. Frequency of ***charges*** by offense before and after treatment.*

Offense Type	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
Drug Crimes	76	20	-56	-74%
Violent Crimes	8	10	2	25%
Property Crimes	65	31	-34	-52%
Public Order	24	36	12	50%
Technical	21	9	-12	-57%
Other	0	3	3	-
TOTAL	**194**	**109**	**-85**	**-44%**

Source: See Table 2

*****Five 2017 cohort sites

Clients in the Unsuccessful group had reductions in the numbers of drug charges (-29%), property crimes (-14%), public order crimes (-5%), and other crimes (-13%), as well as one less violent crime. They had an increase in the number of technical charges (+29%).

Table 16

Unsuccessful Outcome Group. Frequency of ***charges*** by offense before and after treatment.*

Offense Type	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
Drug Crimes	76	54	-22	-29%
Violent Crimes	16	15	-1	-6%
Property Crimes	72	62	-10	-14%
Public Order	39	37	-2	-5%
Technical	45	58	13	29%
Other	8	7	-1	-13%
TOTAL	**256**	**233**	**-23**	**-9%**

Source: See Table 2

*****Five 2017 cohort sites

Arrest Statistics by Site

Table 17 provides a detailed breakdown by site of the numbers of individuals with Successful and Unsuccessful treatment outcomes who were arrested during the pre- and post-treatment periods. The total and average number of arrests by group and site are presented in Table 18, and the total and average numbers of criminal charges filed are detailed in Table 19. As can be seen in the three following tables, the differences between the Successful and Unsuccessful groups are less clear at the individual site level, which may be largely due to the small group sizes at some sites. The smaller the program, the less reliable the site-level data become.

Table 17

Individuals Arrested by Site. Number of individuals arrested by site before and after either Successful or Unsuccessful completion of treatment.

2017 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Percent	Number	Percent	Number	Percent
Alexandria City							
Successful	8			1	13%		
Unsuccessful	14			7	50%		
Total	22			8	36%		
Anne Arundel County							
Successful	12	5	42%	6	50%	1	20%
Unsuccessful	3	0	0%	0	0%	0	0%
Total	15	5	33%	6	40%	1	20%
Arlington County							
Successful	16			7	44%		
Unsuccessful	3			2	67%		
Total	19			9	47%		
Baltimore City							
Successful	25	13	52%	8	32%	-5	-38%
Unsuccessful	55	25	45%	27	49%	2	8%
Total	80	38	48%	35	44%	-3	-8%
Berkeley County							
Successful	28	6	21%	7	25%	1	17%
Unsuccessful	97	46	47%	52	54%	6	13%
Total	125	52	42%	59	47%	7	14%
District of Columbia							
Successful	20	11	55%	9	45%	-2	-18%
Unsuccessful	7	5	71%	4	57%	-1	-20%
Total	27	16	59%	13	48%	-3	-19%
Fairfax County							
Successful	20			4	20%		
Unsuccessful	2			1	50%		
Total	22			5	23%		
Prince George's County							
Successful	17	8	47%	3	18%	-5	-63%
Unsuccessful	4	2	50%	3	75%	1	50%
Total	21	10	48%	6	29%	-4	-40%

Table 17
Individuals Arrested by Site (Continued)

2017 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Percent	Number	Percent	Number	Percent
Prince William County							
Successful	7						
Unsuccessful	24						
Total	31						
Richmond							
Successful	7	6	86%	2	29%	-4	-67%
Unsuccessful	5	5	100%	3	60%	-2	-40%
Total	12	11	92%	5	42%	-6	-55%
Virginia Dept of Corrections							
Successful	9						
Unsuccessful	26						
Total	35						
All Sites Combined							
Successful	169	49		47			
Unsuccessful	240	83		99			
Total	409	132		146			

Source: See Table 2

Table 18

Arrests by Site. Number of arrests by site before and after either Successful or Unsuccessful completion of treatment.

2017 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Alexandria City							
Successful	8						
Unsuccessful	14						
Total	22						
Anne Arundel County							
Successful	12	13	1.08	10	0.83	-3	-23%
Unsuccessful	3	0	0.00	0	0.00	0	0%
Total	15	13	0.87	10	0.67	-3	-23%
Arlington County							
Successful	16			12	0.75		
Unsuccessful	3			2	0.67		
Total	19			14	0.74		
Baltimore City							
Successful	25	29	1.16	15	0.60	-14	-48%
Unsuccessful	55	45	0.82	47	0.85	2	4%
Total	80	74	0.93	62	0.78	-12	-16%
Berkeley County							
Successful	28	7	0.25	8	0.29	1	14%
Unsuccessful	97	81	0.84	71	0.73	-10	-12%
Total	125	88	0.70	79	0.63	-9	-10%
District of Columbia							
Successful	20	25	1.25	16	0.80	-9	-36%
Unsuccessful	7	7	1.00	9	1.29	2	29%
Total	27	32	1.19	25	0.93	-7	-22%
Fairfax County							
Successful	20						
Unsuccessful	2						
Total	22						
Prince George's County							
Successful	17	13	0.76	8	0.47	-5	-38%
Unsuccessful	4	5	1.25	5	1.25	0	0%
Total	21	18	0.86	13	0.62	-5	-28%

Table 18
Arrests by Site (Continued)

2017 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Prince William County							
Successful	7						
Unsuccessful	24						
Total	31						
Richmond							
Successful	7	24	3.43	4	0.57	-20	-83%
Unsuccessful	5	22	4.40	6	1.20	-16	-73%
Total	12	46	3.83	10	0.83	-36	-78%
Virginia Dept of Corrections							
Successful	9						
Unsuccessful	26						
Total	35						
All Sites Combined							
Successful	169	111		73			
Unsuccessful	240	160		140			
Total	409	271		213			

Source: See Table 2

Table 19

Criminal Charges by Site. Number of criminal charges by site before and after either Successful or Unsuccessful completion of treatment.

2017 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Alexandria City							
Successful	8						
Unsuccessful	14						
Total	22						
Anne Arundel County							
Successful	12	17	1.42	22	1.83	5	29%
Unsuccessful	3	0	0.00	0	0.00	0	0%
Total	15	17	1.13	22	1.47	5	29%
Arlington County							
Successful	16			21	1.31		
Unsuccessful	3			3	1.00		
Total	19			24	1.26		
Baltimore City							
Successful	25	58	2.32	23	0.92	-35	-60%
Unsuccessful	55	100	1.82	91	1.65	-9	-9%
Total	80	158	1.98	114	1.43	-44	-28%
Berkeley County							
Successful	28	11	0.39	19	0.68	8	73%
Unsuccessful	97	125	1.29	122	1.26	-3	-2%
Total	125	136	1.09	141	1.13	5	4%
District of Columbia							
Successful	20	34	1.70	33	1.65	-1	-3%
Unsuccessful	7	9	1.29	9	1.29	0	0%
Total	27	43	1.59	42	1.56	-1	-2%
Fairfax County							
Successful	20						
Unsuccessful	2						
Total	22						
Prince George's County							
Successful	17	56	3.29	20	1.18	-36	-64%
Unsuccessful	4	8	2.00	9	2.25	1	13%
Total	21	64	3.05	29	1.38	-35	-55%

Table 19
Criminal Charges by Site (Continued)

2017 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Prince William County							
Successful	7						
Unsuccessful	24						
Total	31						
Richmond							
Successful	7	52	7.43	4	0.57	-48	-92%
Unsuccessful	5	23	4.60	7	1.40	-16	-70%
Total	12	75	6.25	11	0.92	-64	-85%
Virginia Dept of Corrections							
Successful	9						
Unsuccessful	26						
Total	35						
All Sites Combined							
Successful	169	228		142		-86	
Unsuccessful	240	265		241		-24	
Total	409	493		383		-110	

Source: See Table 2

IV. Conclusions

The 2017 Cohort

The study results replicate and expand the findings from the previous annual-cohort studies which examined W/B HIDTA effectiveness over a period of 17 years. The results of the study indicate that collectively the drug treatment programs funded by the W/B HIDTA reduced drug use and crime among a group of repeat offenders. At treatment intake, the individuals who were discharged from W/B HIDTA-funded treatment in 2017, like their cohorts in previous years, were long-term criminals with an average age in the late thirties who had drug use problems.

Once the individuals were in W/B HIDTA-funded substance abuse treatment, the programs were able to keep 41% of them in treatment long enough to have an impact on their criminal behavior and drug use. On average, clients in the 2017 cohort were actively involved in some form of drug treatment for over four months. The programs' flexibility to step up or step down the level of treatment as needed to meet the changing needs of each participant contributed to their ability to keep clients in treatment. In addition, drug testing, the supervision provided to the clients through the parole and probation offices, and the progressive use of stricter sanctions for repeat violations of the terms of their treatment requirements helped ensure that the clients remained drug free.

The lack of access to NCIC arrest data for the 2017 cohort study meant that complete data on pre- and post-treatment arrests and criminal charges could only be obtained for half of the sites. And it is not known how complete this information is since it was collected by site staff, rather than by W/B HIDTA staff as in all previous years. In addition, the Maryland and Virginia sites that used public access databases only searched for arrests within their own states and may have missed arrests in other states.

Nevertheless, the pre-post comparisons for these sites found modest overall reductions in arrests and charges for those who had participated in substance abuse treatment. There was a 6% reduction from the year prior to treatment in the number of individuals arrested, a 27% reduction in the total number of arrests, and a 27% reduction in the number of criminal charges filed against the cohort members. The effects were most pronounced for drug-related crimes, which were reduced 52%, and for property crimes which were reduced 41%.

These positive findings are consistent with the results found in evaluations of the W/B HIDTA substance abuse treatment programs for the 2000 to 2016 cohorts; however, the overall reductions in criminal recidivism rates were not as great for the 2017 cohort. In the five previous years, there were 20% to 43% reductions in the number of individuals arrested and around 40% to 50% reductions in the numbers of arrests and charges.

Two factors in this year's study may have contributed to these differences. The first is that pre- and post-treatment arrest information was only available from half of the sites, and the recidivism reduction rates may have been substantially different if all sites were included in the analyses. The second is that only 47% of the individuals from the six sites in the 2017 analyses had been arrested in the year before treatment, while in the five prior cohorts this rate ranged from 55% to 69%. It is more difficult to demonstrate a large reduction in individual arrests if the pre-treatment arrest rate is already lower than normal.

Data from the nine sites that reported whether or not individuals were arrested in the year after treatment indicated a 42% recidivism rate, which was within the range of 35% to 49% found for the five previous cohorts. This finding supports the conclusion that participation in drug treatment had an impact on criminal recidivism for the 2017 cohort that was comparable to that found in prior years.

Successful and Unsuccessful Treatment Outcome Groups

The study found that the 169 members of the 2017 cohort who were classified by treatment staff as having successful treatment outcomes (Successful subgroup) differed significantly from the 240 who did not successfully complete treatment (Unsuccessful subgroup) in regard to age and race. On average those in the Successful subgroup were two years older than members of the Unsuccessful subgroup, and there was a significantly greater percentage of African Americans in the Successful subgroup than in the Unsuccessful subgroup. Those in the Successful subgroup were in treatment for an average of 176 days, which was 79 days more than the 97-day average for members of the Unsuccessful subgroup.

For the six sites with both pre- and post-treatment arrest data, 45% of the Successful group and 49% of the Unsuccessful group had been arrested in the year prior to treatment. After discharge, just 32% of the Successful subgroup members were arrested during the one-year follow-up period compared to 52% of those in the Unsuccessful subgroup. The average number of arrests per person during follow-up was 0.56 for the first group and 0.81 for the latter.

Within the Successful subgroup, 29% fewer individuals were arrested during the one-year follow-up period than in the year prior to treatment, and this group also had 45% fewer arrests and 47% fewer criminal charges at follow-up. In contrast, the Unsuccessful subgroup had an *increase* of 7% in the number of individuals arrested, a 14% decrease in the number of arrests, and a 10% reduction in the number of criminal charges. These findings support the hypothesis that providing substance abuse treatment to offenders and helping them remain in treatment until completion can significantly reduce criminal recidivism.

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Appendix A

Detailed Methodology

Discharge Cohort Methodology
Data Sources
Coding of Arrest Data
Calculation of Arrest Rates
Missing Data
Limitations

Discharge Cohort Methodology

The 2002 to 2006 cohort studies tracked pre- and post-treatment arrests of individuals who entered treatment in a particular calendar year (Entrance cohort). The 2007 cohort study (DuPont et al., 2009) examined the effects of changing the study methodology to one that tracks pre- and post-treatment arrests of those discharged from treatment during a particular year (Discharge cohort). The advantage of changing to a Discharge cohort methodology is that annual reviews can be completed more promptly; the evaluation does not have to wait for people admitted to the program in November and December to complete their treatment before the one-year follow-up period can begin. Demographic characteristics and post-treatment arrest records of criminal offenders who entered treatment in 2007 were compared to those of individuals who were discharged from treatment in 2007. The study found that both methods yielded same-sized cohorts with highly similar demographic, drug use, and criminal history characteristics. Their experiences in regard to treatment, drug testing, supervision, and sanctioning while in the program were similar. Analysis of post-treatment arrest data for the members of the Discharge cohort found that their recidivism rate was not significantly different from that of the Entrance cohort. Therefore, beginning with the 2008 cohort study (DuPont et al., 2010) a Discharge cohort methodology has been used in subsequent studies.

Data Sources

Data on the 2017 W/B HIDTA Discharge cohort were obtained from two primary sources. The first was a dataset provided by the W/B HIDTA that contained demographic characteristics and treatment information that were gathered from client records.

In previous annual cohort studies from 2002 through 2016, arrest records were obtained for each client from the National Crime Information Center (NCIC). This year, however, the W/B HIDTA was not granted access to the NCIC database and could not download arrest records directly as in years past. Therefore, the sites were asked to use resources available to them and to provide as much individual arrest data as possible. Site staff attempted to collect this information from program records, public access databases of arrests in Maryland and Virginia, or through the help of probation and parole offices in their sites. IBH evaluators used the public access database to obtain arrest records for one site in Maryland.

Arrest data were collected for two one-year periods. Pre-treatment arrests were recorded for the twelve months immediately preceding the individual's admittance into W/B HIDTA-funded treatment – unless treatment began in a jail or prison, in which case the pre-treatment period was one year prior to the date of incarceration. For community-based programs, the relevant time period for following up on post-treatment arrests was one year from the date of discharge from W/B HIDTA treatment. For jail-based programs, the follow-up period was one year from the date that the treated individual was released to the community. Pre- and post-treatment arrest data were available for six of the sites, three others had only post-treatment arrest data, and three could not provide any arrest records

The evaluators combined information from the W/B HIDTA dataset and the available arrest records into a master data file for analysis using SPSS statistical software.

Coding of Arrest Data

The arrest records were verified against client rosters (Excel spreadsheets) provided by the W/B HIDTA staff. Client's names were checked against names listed on the roster, and further checked against date of birth. The information gathered included: the date and charges for all offenses committed by a client 365 days prior to the date of admittance into W/B HIDTA treatment (prior arrests); the total number of these prior arrests; and similar information for all arrests made within 365 days from the date that the client was exposed to the community after admittance into W/B HIDTA treatment (post arrests).

It was possible to have more than one charge on an arrest date (arrest event). All charges associated with those individual arrest events were coded according to the *Crime Categories for HIDTA Evaluation* (DuPont et al, 2004, Appendix C), which was based on the Uniformed Crime Report. Primary crimes were categorized by type of offense (Drug, Violent, Property, Public Order, Technical, and Other) and assigned a primary code. Drug charges associated with the primary crime were grouped by type of drug crime (Distribution, Possession, etc.) and assigned a secondary code. Prior arrests and post arrests were all coded in the same manner.

The numbers and types of offenses for each individual were then entered into an Excel spreadsheet with no individual identifying information attached. No data identifying individuals for this report ever left the W/B HIDTA site.

Calculation of Pre- and Post-Treatment Arrest Rates

The research design used a pretest/posttest comparison for the 2017 Discharge cohort that evaluated the effect of treatment on reducing crime by participants. Arrest rates were compared for periods before and after onset of W/B HIDTA-funded treatment within and across sites/jurisdictions to examine effectiveness in reducing re-arrest rates overall as well as technical, violent, and/or drug offenses specifically.

The method of calculating the arrest rate involved using the following formula (Fox et al., 1999):

$$\frac{(\text{Number of Arrests Post} - \text{Number of Arrests Prior})(100)}{\text{Number of Arrests Prior to Treatment}}$$

Calculation of the ***total*** % change in arrests: $-47.3\% = \frac{(595 - 1128)\,(100)}{1128}$

The same method was used to calculate the percent change in the number of cohort members arrested before and after treatment and the percent change in the number of criminal charges filed against these individuals.

Missing Data

The issue of missing data was handled as it was in the previous studies: all available data were included in the analyses and the total number of subjects was noted for each calculation. Missing data points were not replaced with averages or other estimates based on the characteristics of those for whom data was available. For this particular cohort, there was a considerable amount of missing data.

Limitations

The primary limitation of this study affecting the interpretation of findings regards the ability to compare study results for the 2017 cohort to those from prior annual cohorts. Although annual cohorts have been studied since 2000, each cohort is somewhat different from the others. Over the years, treatment programs in some localities have stopped receiving W/B HIDTA funding and have been replaced by programs funded elsewhere. Some continuously funded programs have increased or decreased the numbers of clients served over the years. When a single program expands to the point that its clients constitute the majority of the members of an annual cohort (as the District of Columbia program did in 2009 and 2010) the performance of this one program can greatly affect the overall recidivism statistics for the cohort as a whole. Therefore, it is best not to make direct comparisons from year to year.

This year's cohort provides another example for the need to be cautious in making cross-year comparisons. This was the only year in which NCIC arrest records could not be used for the study. The result was a considerable amount of missing data for three of the sites and no data for three others. Because site staff rather than W/B HIDTA personnel gathered arrest data, and because they used a variety of data sources, the completeness and reliability of the data collection process could not be verified. Therefore, the results reported in this study only reflect the achievements of some of the sites, and even these numbers may be incomplete.

It is highly recommended that the W/B HIDTA pursue permission to use NCIC arrest records for all future cohort studies.

Appendix B

Types of Criminal Charges by Jurisdiction

Table B.1
Total Arrests and Number of Charges per Site for the 2017 Cohort

Site	Alexandria	Anne Arundel County	Arlington County	Baltimore City	Berkeley County	District of Columbia	Fairfax County	Prince George's County	Prince William County	Richmond	Virginia DOC	Totals
Pre-Treat. Arrests		**(n = 13)**		**(n = 74)**	**(n = 88)**			**(n = 18)**		**(n = 46)**		**(n = 239)**
Drug Crimes (all)		4		87	31			21		9		152
Violent Crimes		0		9	12			1		2		24
Property Crimes		1		25	45			30		36		137
Public Order		6		30	14			11		2		63
Technical		6		7	26			1		26		66
Other		0		0	8			0		0		8
Total Charges:		**17**		**158**	**136**			**64**		**75**		**450**
Post-Treat. Arrests		**(n = 10)**	**(n = 14)**	**(n = 62)**	**(n = 79)**			**(n = 13)**		**(n = 10)**		**(n = 188)**
Drug Crimes (all)		10	1	33	26			2		2		74
Violent Crimes		1	4	11	3			4		2		25
Property Crimes		1	12	30	29			21		0		93
Public Order		8	2	36	24			1		2		73
Technical		2	5	4	50			1		5		67
Other		0	0	0	10			0		0		10
Total Charges:		**22**	**24**	**114**	**142**			**29**		**11**		**342**

Table B.2
Pre- and Post-Treatment Drug Charges per Site for the 2017 Cohort

Site	Alexandria	Anne Arundel County	Arlington County	Baltimore City	Berkeley County	District of Columbia	Fairfax County	Prince George's County	Prince William County	Richmond	Virginia DOC	Totals
Pre-Treatment Charges												
Distribution (Selling Manufacturing)		0		9	14			1		0		24
Miscellaneous Drugs		2		12	3			2		1		20
Possession		2		45	12			11		8		78
PWID		0		20	1			5		0		26
Other		0		1	1			2		0		4
Total Drug Charges:		**4**		**87**	**31**			**21**		**9**		**152**
Post-Treatment Charges												
Distribution (Selling Manufacturing)		4	0	1	8			0		0		13
Miscellaneous Drugs		1	0	3	2			0		1		7
Possession		4	1	21	10			2		1		39
PWID		1	0	7	4			0		0		12
Other		0	0	1	2			0		0		3
Total Drug Charges:		**10**	**1**	**33**	**26**			**2**		**2**		**74**