Washington/Baltimore
High Intensity Drug Trafficking Area

2016 Recidivism Report

The Effect of W/B HIDTA-Funded Substance Abuse Treatment on
Arrest Rates of Criminals Leaving Treatment in
Calendar Year 2016

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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 2016, eleven 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 2016, 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 2016. 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

Data for the study 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. The second consisted of arrest records obtained for each client from the National Crime Information Center (NCIC). All research data coding occurred at the W/B HIDTA office in Greenbelt, Maryland. Data identifying individuals for this report were never removed from the W/B HIDTA site.

Results

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. The 404 individuals discharged from W/B HIDTA-funded treatment in 2016, like their cohorts in previous years, were composed of long-term criminals with an average age of nearly 40 years who had serious drug problems.

On average, clients in the 2016 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 pre- and post-treatment comparisons of arrest data for the 2015 cohort clearly indicate that the W/B HIDTA-funded programs as a whole continued to produce the desired effects within the target population. Criminal recidivism in the year following treatment was reduced significantly, regardless of whether the indicator used was the number of people arrested, the number of arrests, or the number of criminal charges filed. There was a 29%

reduction from the year prior to treatment in the number of individuals arrested, a 44% reduction in the total number of arrests, and a 42% reduction in the number of criminal charges filed against the cohort members. The effects were most pronounced for drug-related crimes, which were reduced 70%, and for property crimes which were reduced 56%.

These positive findings are consistent with the results found in evaluations of the W/B HIDTA substance abuse treatment programs for the 2000 to 2015 cohorts.

The study found that the 192 members of the 2016 cohort who were classified by treatment staff as having successful treatment outcomes (Successful subgroup) differed significantly from the 212 who did not successfully complete treatment (Unsuccessful subgroup) in regard to age, gender, and race. On average those in the Successful subgroup were four years older than members of the Unsuccessful subgroup. There were significantly greater percentages of males and African Americans in the Successful subgroup than in the Unsuccessful subgroup. Those in the Successful subgroup were in treatment for an average of 143 days, which was 35 days more than the 108-day average for members of the Unsuccessful subgroup.

In the year prior to treatment, 74% of the Successful group and 64% of the Unsuccessful group had been arrested. After discharge, just 36% of the Successful subgroup members were arrested during the one-year follow-up period compared to 61% of those in the Unsuccessful subgroup. The average number of arrests per person during follow-up was 0.63 for the first group and 1.01 for the latter.

Within the Successful subgroup, 51% fewer individuals were arrested during the one-year follow-up period than in the year prior to treatment, and this group also had 58% fewer arrests and 65% fewer criminal charges at follow-up. In contrast, the Unsuccessful subgroup had a decrease of just 5% in the number of individuals arrested, a 31% decrease in the number of arrests, and a 22% reduction in the number of criminal charges. These findings indicate that successful completion of a substance abuse treatment program of sufficient length has a strong positive effect in reducing subsequent criminality.

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 cocaine and heroin.

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 2015 (DuPont et al., reports 2002 through 2017). 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

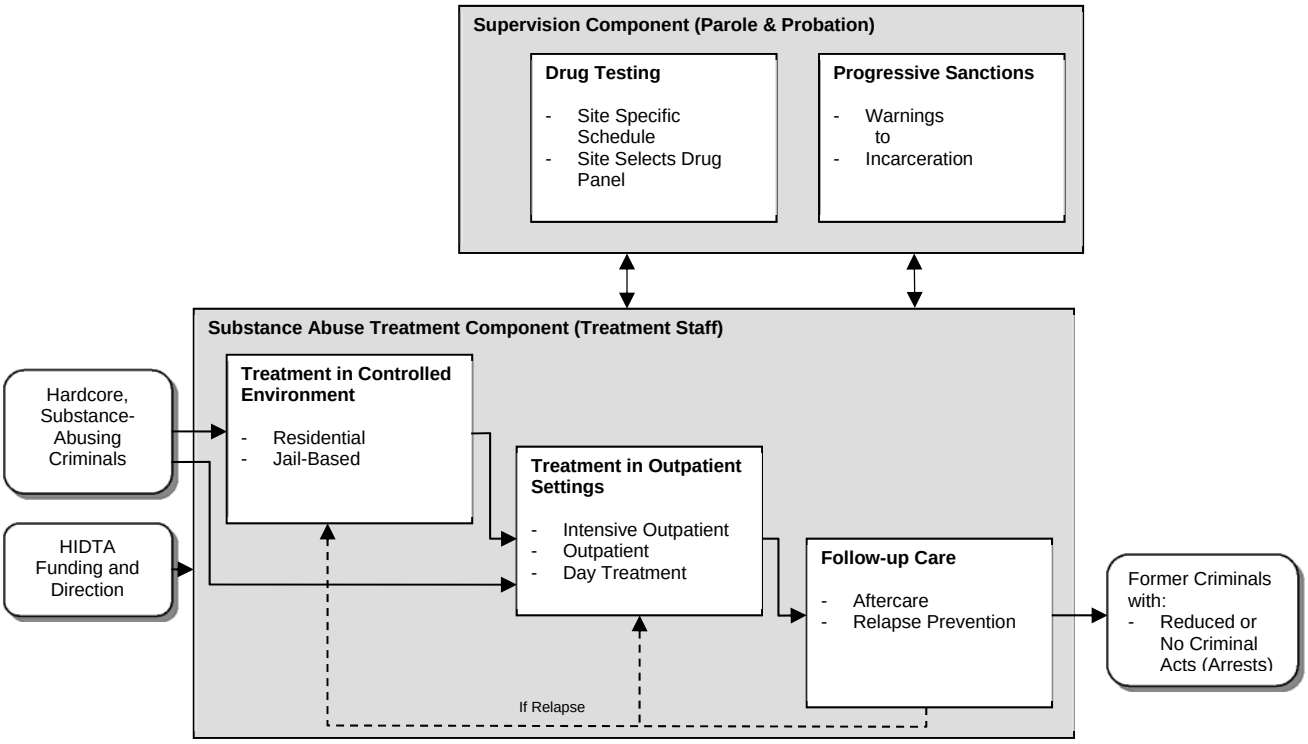
Eleven of the 27 W/B HIDTA-designated jurisdictions operated HIDTA-funded substance abuse treatment programs in 2016: Alexandria City, Arlington County, Fairfax County, Prince William County, City of Richmond, and the Virginia Department of Corrections in Virginia; Anne Arundel County, Baltimore City, 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] 2016 was the first year in which W/B HIDTA funded treatment services in Berkeley County and individuals discharged from the local program were included in the annual criminal recidivism study. The other ten sites had been included in annual cohort studies for the previous five years or longer.

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 2016, 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 2016. 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 2016 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
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

Data on the 2016 Discharge cohort were obtained from two sources. The first, the W/B HIDTA dataset, 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) that were gathered from client records. The second consisted of arrest records obtained for each client from the National Crime Information Center (NCIC). These data were coded by arrest and date of arrest and were aggregated into a spreadsheet with no individual identifying information attached. Analyses were performed on the aggregated data. All research data coding occurred at the W/B HIDTA office in Greenbelt, Maryland. Data identifying individuals for this report were never removed from the W/B HIDTA office.

Arrest data for each individual were examined for two one-year periods. Pre-treatment arrests were recorded for the twelve months immediately preceding the individual's admittance into W/B HIDTA treatment – unless treatment began in a secure facility such as 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 2016 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.

Data from the W/B HIDTA dataset and NCIC records 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

2016 W/B HIDTA Discharge Cohort

The evaluation sample for calendar year 2016 included a total of 404 individuals discharged from the eleven sites that had W/B HIDTA-funded substance abuse treatment programs. Site staff classified 192 of these cases (48%) as Successful, meaning that the clients had successfully completed their drug treatment programs, and 212 cases (52%) as Unsuccessful because the clients had failed to complete treatment. As shown in Table 2, the degree of successful completion varied by site, ranging from a 94% success rate in Arlington to 5% for Berkley County.

Table 2

2016 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	31	26%	74%
Anne Arundel County	24	46%	54%
Arlington County	35	94%	6%
Baltimore City	64	48%	52%
Berkeley County	41	5%	95%
District of Columbia	77	62%	38%
Fairfax County	31	71%	29%
Prince George's County	15	93%	7%
Prince William County	33	21%	79%
Richmond	18	61%	39%
Virginia DOC	35	14%	86%
TOTAL	**404**	**48%**	**52%**

Source: W/B HIDTA dataset

Table 3 lists for each jurisdiction the number of individuals who constituted the 2016 discharge cohort. On average, each site discharged from treatment about 37 clients, ranging from 15 in Prince George's County to 77 in the District of Columbia. Clients in the latter site, the largest of the ten programs, accounted for 19% of the annual cohort.

Table 3
Discharge Cohort for 2016 W/B HIDTA Study

Site	Discharge Group		2016 Cohort	
	Successful	Unsuccessful	Total	Percent
Alexandria City	8	23	31	8%
Anne Arundel County	11	13	24	6%
Arlington County	33	2	35	9%
Baltimore City	31	33	64	16%
Berkeley County	2	39	41	10%
District of Columbia	48	29	77	19%
Fairfax County	22	9	31	8%
Prince George's County	14	1	15	4%
Prince William County	7	26	33	8%
Richmond	11	7	18	4%
Virginia DOC	5	30	35	9%
TOTAL	**192**	**212**	**404**	**100%**

Source: W/B HIDTA dataset

Characteristics of the 2016 Cohort

Age, Gender, and Race. The average age at admission to treatment for clients exiting W/B HIDTA-funded treatment in 2016 was 37 years. Participants ranged in age from 19 to 66 years. On average, Successful subgroup members were four years older than those in the Unsuccessful subgroup, which was a statistically significant difference.[2] A large majority of participants (76%) were male. African Americans (53%) constituted the largest racial group, followed by Caucasians (46%). Less than 1% of each subgroup was classified as Hispanic. There were significantly greater percentages of males and African Americans in the Successful subgroup than in the Unsuccessful subgroup.[3]

Table 4
Gender, Race, and Age of the 2016 W/B HIDTA Cohort

Demographic		Successful (n=192)	Unsuccessful (n=212)	Total Cohort (n=404)
Gender	Male	81%	71%	76%
	Female	19%	29%	24%
Race	African American	61%	44%	53%
	Caucasian	37%	55%	46%
	American Indian	0%	0%	0%
	Asian/Pacific Islander	2%	<1%	1%
	Other	0%	<1%	<1%
Age	Mean Age (years) Range	39 20-64	35 19-65	37 19-66

Source: W/B HIDTA dataset

[2] Age difference ($t = 3.23$, $df = 404$, $p<.01$).
[3] Gender difference (chi-square = 4.96, df=1, <.05); racial difference (chi-square = 13.13, df=1, <.001).

As shown in Table 5, participants in Anne Arundel County, Fairfax, and Prince William County were significantly younger at treatment intake (30 years old on average) than participants from Baltimore, the District of Columbia, and VADOC (39-43 years). In all sites except Alexandria (37%) the majority of participants were male, ranging from 61% (Richmond) to 94% (Arlington). The racial distribution of clients varied greatly from site to site. In six sites the majority was African American (51%-97%); in the other five the majority was Caucasian (53%-97%).

Table 5
Age, Gender, and Race by Site

Site	N	Mean Age	Percent Male	Race		
				African American	Caucasian	Other
Alexandria City	31	36	37%	47%	53%	0%
Anne Arundel County	24	31	71%	13%	87%	0%
Arlington County	35	36	94%	57%	43%	0%
Baltimore City	64	43	82%	74%	25%	1%
Berkeley County	41	34	71%	10%	90%	0%
District of Columbia	77	40	87%	97%	3%	0%
Fairfax County	31	30	74%	23%	67%	10%
Prince George's County	15	36	73%	73%	27%	0%
Prince William County	33	30	79%	0%	97%	3%
Richmond	18	37	61%	67%	33%	0%
Virginia DOC	35	39	74%	51%	49%	0%
OVERALL	**404**	**37**	**76%**	**53%**	**46%**	**1%**

Source: W/B HIDTA dataset

Comparison to Cohorts from Five Previous Years. Table 6 indicates that each year since 2011 the treatment population has been predominantly male and African American, averaging between 37 to 40 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 25% in 2011 to 46% in 2016.

Table 6
Demographic Comparisons of W/B HIDTA 2011-2016 Cohorts

Demographic	2011 (n=349)	2012 (n=327)	2013 (n=370)	2014 (n=303)	2015 (n=283)	2016 (n=404)
Mean Age (years)	40	38	38	38	38	37
Male	78%	74%	74%	70%	73%	76%
African American	74%	69%	68%	62%	58%	53%
Caucasian	25%	28%	30%	37%	40%	46%

Sources: W/B HIDTA dataset for 2016 data; DuPont et al. (2017) for 2011-2015 data

Duration of Treatment

The overall average length of stay in treatment for the 2016 cohort was 125 days. Within the cohort, the 192 individuals classified by site staff as Successful in completing the overall treatment program were treated for an average of 143 days; the 212 rated as Unsuccessful in their treatment were treated an average of 108 days. The 35-day difference in length of treatment was statistically significant ($t = 2.87$, $df = 404$, $p<.01$). Table 7 indicates that across the various sites the average duration of treatment for Successful clients ranged from 28 to 552 days. For the Unsuccessful group, the range in average across sites was from 16 to 249 days.

Table 7
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	299	23	198
Anne Arundel County	11	116	13	71
Arlington County	33	169	2	114
Baltimore City	31	178	33	80
Berkeley County	2	70	39	47
District of Columbia	48	31	29	16
Fairfax County	22	80	9	51
Prince George's County	14	28	1	45
Prince William County	7	444	26	180
Richmond	11	279	7	249
Virginia DOC	5	552	30	174
OVERALL	**192**	**143**	**212**	**108**

Source: Reported by site

Overall Recidivism Rates for the 2016 Cohort

Overall recidivism statistics were computed for the 404 individuals discharged from W/B HIDTA-funded treatment programs in 2016, regardless of whether treatment was judged to be successful or unsuccessful. This was so that this year's overall recidivism results could be compared to results for cohorts from previous years.

Table 8 indicates that 279 of the individuals in the 2016 cohort (69%) had been arrested at least once during the year before entering treatment. During the one-year follow-up period, 199 of the cohort members (49%) were arrested. The overall reduction in the number of individuals arrested before and after treatment was 29%.

Table 8

2016 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 ten W/B HIDTA treatment sites.

2016 Discharge Cohort 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]
Alexandria City	31	13	13	0	0%
Anne Arundel County	24	18	6	-12	-67%
Arlington County	35	33	15	-18	-55%
Baltimore City	64	55	31	-24	-44%
Berkeley County	41	17	23	+6	+35%
District of Columbia	77	50	43	-7	-14%
Fairfax County	31	21	14	-7	-33%
Prince George's County	15	8	4	-4	-50%
Prince William County	33	17	22	+5	+29%
Richmond	18	17	6	-11	-65%
Virginia DOC	35	30	22	-8	-27%
TOTAL	**404**	**279**	**199**	**-80**	**-29%**

Source: NCIC arrest records

Table 9 shows that the 404 individuals in the 2016 cohort had a total of 597 arrests in the year before entering treatment, an average of 1.48 arrests per person. During the one-year follow-up period, these same individuals had a total of 334 arrests, an average of 0.83 arrests per person, and a 44% reduction in arrests compared to the pre-treatment period.

[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 9

2016 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 ten 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
Alexandria City	31	15	20	5	+33%
Anne Arundel County	24	40	7	-33	-83%
Arlington County	35	87	23	-64	-74%
Baltimore City	64	162	60	-102	-63%
Berkeley County	41	29	41	12	+41%
District of Columbia	77	88	75	-13	-15%
Fairfax County	31	28	21	-7	-25%
Prince George's County	15	13	5	-8	-62%
Prince William County	33	34	33	-1	-3%
Richmond	18	37	9	-28	-76%
Virginia DOC	35	64	40	-24	-38%
TOTAL	**404**	**597**	**334**	**-263**	**-44%**

Source: NCIC arrest records

Table 10 indicates that after treatment the total number of criminal charges per year brought against the 2016 cohort members was cut by 42%. Moreover, this number represents a total of 445 fewer chargeable offenses committed in the community during the follow-up period than before treatment. The greatest absolute change was in the number of charges for drug-related crimes, which were down by 70%, as well as the 56% reduction in property crimes. Charges for public order crimes, such as disturbing the peace and gambling, were down 44%. Charges for technical crimes such as violation of probation or parole were reduced by 9%. There were 11 fewer violent crimes committed during the follow-up period than the 42 recorded in the year before treatment.

Table 10

2016 Cohort. Frequency of ***charges*** by offense before and after treatment.

Offense Type	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
Drug Crimes	250	75	-175	-70%
Violent Crimes	42	31	-11	-26%
Property Crimes	308	134	-174	-56%
Public Order	68	38	-30	-44%
Technical	347	315	-32	-9%
Other	51	28	-23	-45%
TOTAL	**1066**	**621**	**-445**	**-42%**

Source: NCIC arrest records

Table 11 summarizes the criminal recidivism data for the 2016 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., 2017).

Table 11

2011-2016 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
2011 Cohort (n=349)				
Individuals Arrested	201	121	-80	-40%
Number of Arrests	380	213	-167	-44%
Number of Charges	634	333	-301	-47%
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%

Source: NCIC arrest records

The results for the 2016 cohort were consistent with findings from the five previous years in that arrest rates declined after treatment:

- 29% fewer 2016 cohort members were arrested during the follow up period than in the year before treatment. This was slightly less than the 31% to 43% reductions found for four of the earlier cohorts.
- There were 44% fewer arrests during follow up for the 2016 cohort, which was similar to the 43-44% reductions found for four of the previous cohorts.
- The number of crimes 2016 cohort members were charged with declined by 42% after they had received substance abuse treatment, which was not quite as big a reduction as was found for four of the previous cohorts (45% to 50%).

- For all cohorts, including the 2016 cohort, there have been significant reductions in criminal charges for drug-related crimes, usually in the 50% to 70% range. For the 2016 cohort the percentage reduction was 70%.

Recidivism Rates for Successful and Unsuccessful Treatment Outcome Groups

A total of 192 clients in the 2016 cohort were classified by staff as having Successful treatment outcomes and 212 were classified as Unsuccessful. Table 12 summarizes the pre- and post-treatment arrest data for both groups. For the Successful group, 51% fewer individuals were arrested during the one-year follow-up period than in the year prior to treatment, and this group also had 58% fewer arrests and 65% fewer criminal charges at follow-up. In contrast, the Unsuccessful group had just a 5% decrease in the number of individuals arrested, a 31% decrease in the number of arrests, and a 22% 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 12

Treatment Outcome Groups. Summary of reductions in numbers of individuals arrested and total numbers of arrests and criminal charges before and after treatment.

Treatment Outcome	Pre-Treatment	One-Year Follow-up	Absolute Change	Percent Change
Successful (n=192)				
Individuals Arrested	143	70	-73	-51%
Number of Arrests	287	120	-167	-58%
Number of Charges	498	176	-322	-65%
Unsuccessful (n=212)				
Individuals Arrested	136	129	-7	-5%
Number of Arrests	310	214	-96	-31%
Number of Charges	568	445	-123	-22%

Source: NCIC arrest records

Figure 2 highlights the degree to which successful completion of treatment helped reduce the number of individuals arrested. In the year prior to treatment, 74% of the Successful group and 64% of the Unsuccessful group had been arrested. At follow-up, the percentage of those arrested dropped to 36% for the Successful group but only to 61% for the Unsuccessful treatment completers. Figures 3, 4, and 5, which use data from Table 12 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

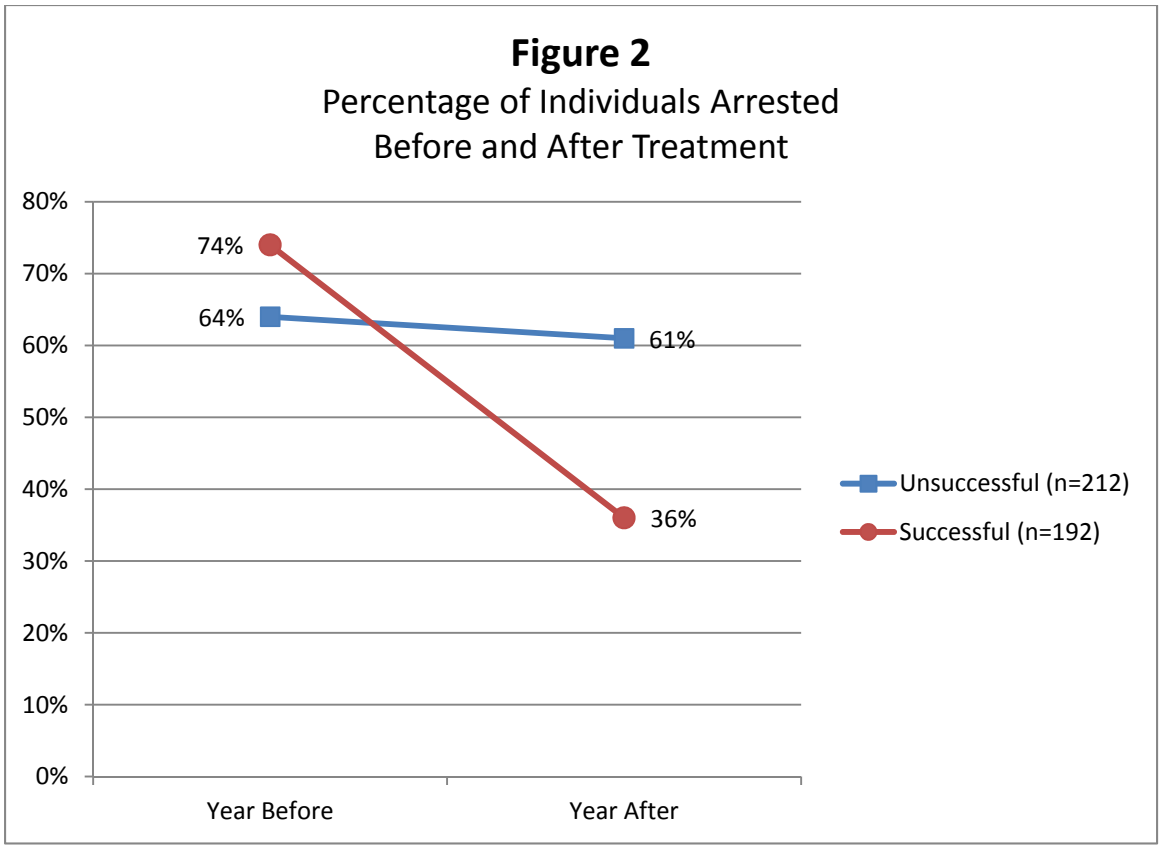


Figure 3

Number of Individuals Arrested Before and After Treatment

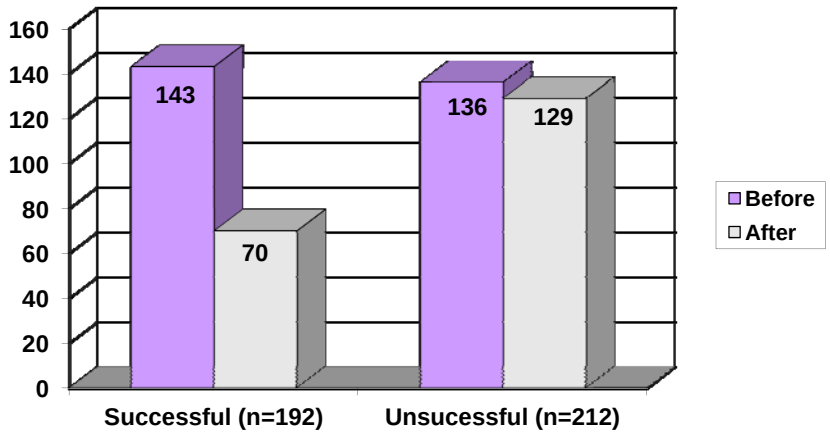


Figure 4
Number of Arrests
Before and After Treatment

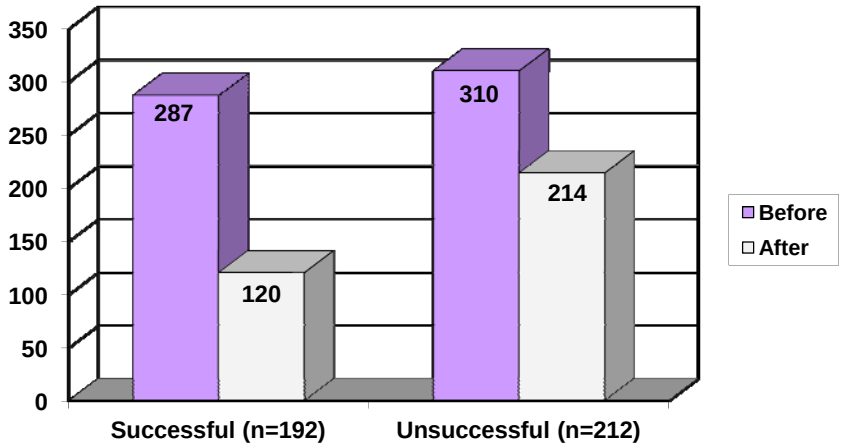


Figure 5
Number of Criminal Charges
Before and After Treatment

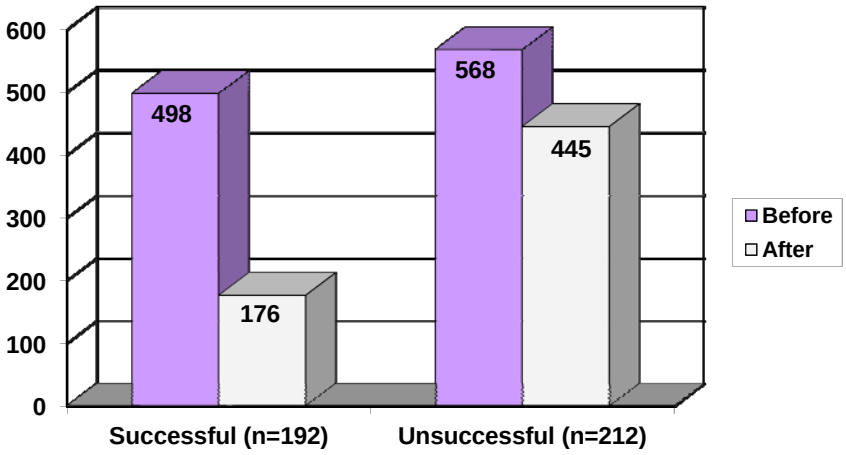
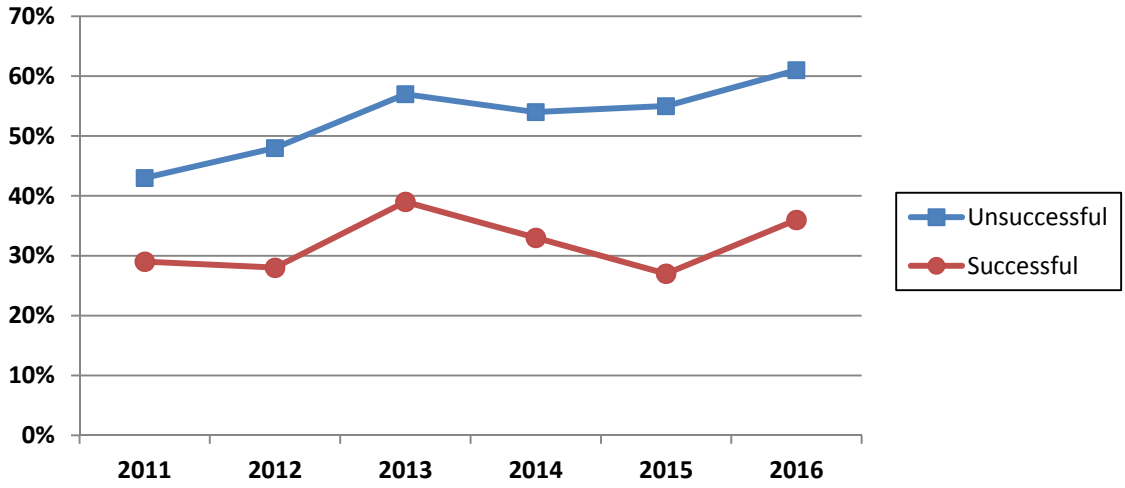


Figure 6 shows the recidivism rate for individuals in the year following treatment for the current cohort and for the five most recent W/B HIDTA annual cohorts. For those who successfully completed treatment, this rate in four of the past five years had consistently been around 30% for each cohort, ranging from 27% to 33%.[5] The 36% recidivism rate for the Successful treatment group in this year's cohort was slightly above this range. In each of the previous five years, the recidivism rate for the Unsuccessful treatment group, ranging from 43% to 59%, had been considerably higher than that for the Successful group. This trend continued for the 2016 cohort as the Unsuccessful group had a recidivism rate of 61%, which was 25 percentage points higher than for the Successful group.

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



Tables 13 and 14 document 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 (-82%) and property crimes (-77%). Public order crimes and other miscellaneous crimes were both reduced by 55%. Technical offenses, such as probation and parole violation, were reduced by 48%. There were five less violent 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).

Table 13

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	122	22	-100	-82%
Violent Crimes	20	15	-5	-25%
Property Crimes	143	33	-110	-77%
Public Order	38	17	-21	-55%
Technical	144	75	-69	-48%
Other	31	14	-17	-55%
TOTAL	**498**	**176**	**-322**	**-65%**

Source: NCIC arrest records

Clients in the Unsuccessful group had reductions in the numbers of drug charges (-59%), property crimes (-39%), public order crimes (-30%), and other crimes (-30%), as well as six fewer violent crimes. They had an increase in the number of technical charges (+18%).

Table 14

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	128	53	-75	-59%
Violent Crimes	22	16	-6	-27%
Property Crimes	165	101	-64	-39%
Public Order	30	21	-9	-30%
Technical	203	240	+37	18%
Other	20	14	-6	-30%
TOTAL	**568**	**445**	**-123**	**-22%**

Source: NCIC arrest records

Arrest Statistics by Site

Table 15 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 16, and the total and average numbers of criminal charges filed are detailed in Table 17. For all sites combined, Successful treatment subjects averaged 1.49 arrests per person prior to treatment and 0.63 arrests during the follow-up year, compared to 1.46 pre-treatment arrests and 1.01 post-treatment arrests for the Unsuccessful treatment subjects. Similarly, the average number of criminal charges across all sites declined from 2.59 to 0.92 for the Successful group and from 2.68 to 2.10 for the Unsuccessful group. 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 15

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

2016 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Percent	Number	Percent	Number	Percent
Alexandria City							
Successful	8	1	13%	0	0%	-1	-100%
Unsuccessful	23	12	52%	13	57%	1	8%
Total	31	13	42%	13	42%	0	0%
Anne Arundel County							
Successful	11	9	82%	2	18%	-7	-78%
Unsuccessful	13	9	69%	4	31%	-5	-56%
Total	24	18	75%	6	25%	-12	-67%
Arlington County							
Successful	33	31	94%	13	39%	-18	-58%
Unsuccessful	2	2	100%	2	100%	0	0%
Total	35	33	94%	15	43%	-18	-55%
Baltimore City							
Successful	31	27	87%	13	42%	-14	-52%
Unsuccessful	33	28	85%	18	55%	-10	-36%
Total	64	55	86%	31	48%	-24	-44%
Berkeley County							
Successful	2	2	100%	2	100%	0	0%
Unsuccessful	39	15	38%	21	54%	6	40%
Total	41	17	41%	23	56%	6	35%
District of Columbia							
Successful	48	30	63%	27	56%	-3	-10%
Unsuccessful	29	20	69%	16	55%	-4	-20%
Total	77	50	65%	43	56%	-7	-14%
Fairfax County							
Successful	22	17	77%	6	27%	-11	-65%
Unsuccessful	9	4	44%	8	89%	4	100%
Total	31	21	68%	14	45%	-7	-33%
Prince George's County							
Successful	14	8	57%	3	21%	-5	-63%
Unsuccessful	1	0	0%	1	100%	1	100%
Total	15	8	53%	4	27%	-4	-50%

Table 15
Individuals Arrested by Site (Continued)

2016 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Percent	Number	Percent	Number	Percent
Prince William County							
Successful	7	3	43%	1	14%	-2	-67%
Unsuccessful	26	14	54%	21	81%	7	50%
Total	33	17	52%	22	67%	5	29%
Richmond							
Successful	11	11	100%	3	27%	-8	-73%
Unsuccessful	7	6	86%	3	43%	-3	-50%
Total	18	17	94%	6	33%	-11	-65%
Virginia Dept of Corrections							
Successful	5	4	80%	0	0%	-4	-100%
Unsuccessful	30	26	87%	22	73%	-4	-15%
Total	35	30	86%	22	63%	-8	-27%
All Sites Combined							
Successful	192	143	74%	70	36%	-73	-51%
Unsuccessful	212	136	64%	129	61%	-7	-5%
Total	404	279	69%	199	49%	-80	-29%

Source: NCIC arrest records

Table 16

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

2016 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Alexandria City							
Successful	8	1	0.13	0	0.00	-1	-100%
Unsuccessful	23	14	0.61	20	0.87	6	43%
Total	31	15	0.48	20	0.65	5	33%
Anne Arundel County							
Successful	11	18	1.64	2	0.18	-16	-89%
Unsuccessful	13	22	1.69	5	0.38	-17	-77%
Total	24	40	1.67	7	0.29	-33	-83%
Arlington County							
Successful	33	76	2.30	21	0.64	-55	-72%
Unsuccessful	2	11	5.50	2	1.00	-9	-82%
Total	35	87	2.49	23	0.66	-64	-74%
Baltimore City							
Successful	31	76	2.45	27	0.87	-49	-64%
Unsuccessful	33	86	2.61	33	1.00	-53	-62%
Total	64	162	2.53	60	0.94	-102	-63%
Berkeley County							
Successful	2	2	1.00	2	1.00	0	0%
Unsuccessful	39	27	0.69	39	1.00	12	44%
Total	41	29	0.71	41	1.00	12	41%
District of Columbia							
Successful	48	46	0.96	50	1.04	4	9%
Unsuccessful	29	42	1.45	25	0.86	-17	-40%
Total	77	88	1.14	75	0.97	-13	-15%
Fairfax County							
Successful	22	22	1.00	8	0.36	-14	-64%
Unsuccessful	9	6	0.67	13	1.44	7	117%
Total	31	28	0.90	21	0.68	-7	-25%
Prince George's County							
Successful	14	13	0.93	4	0.29	-9	-69%
Unsuccessful	1	0	0.00	1	1.00	1	100%
Total	15	13	0.87	5	0.33	-8	-62%

Table 16
Arrests by Site (Continued)

2016 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Prince William County							
Successful	7	7	1.00	2	0.29	-5	-71%
Unsuccessful	26	27	1.04	31	1.19	4	15%
Total	33	34	1.03	33	1.00	-1	-3%
Richmond							
Successful	11	18	1.64	4	0.36	-14	-78%
Unsuccessful	7	19	2.71	5	0.71	-14	-74%
Total	18	37	2.06	9	0.50	-28	-76%
Virginia Dept of Corrections							
Successful	5	8	1.60	0	0.00	-8	-100%
Unsuccessful	30	56	1.87	40	1.33	-16	-29%
Total	35	64	1.83	40	1.14	-24	-38%
All Sites Combined							
Successful	192	287	1.49	120	0.63	-167	-58%
Unsuccessful	212	310	1.46	214	1.01	-96	-31%
Total	404	597	1.48	334	0.83	-263	-44%

Source: NCIC arrest records

Table 17

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

2016 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Alexandria City							
Successful	8	4	0.50	0	0.00	-4	-100%
Unsuccessful	23	19	0.83	83	3.61	64	337%
Total	31	23	0.74	83	2.68	60	261%
Anne Arundel County							
Successful	11	42	3.82	4	0.36	-38	-90%
Unsuccessful	13	68	5.23	11	0.85	-57	-84%
Total	24	110	4.58	15	0.63	-95	-86%
Arlington County							
Successful	33	164	4.97	32	0.97	-132	-80%
Unsuccessful	2	17	8.50	4	2.00	-13	-76%
Total	35	181	5.17	36	1.03	-145	-80%
Baltimore City							
Successful	31	85	2.74	29	0.94	-56	-66%
Unsuccessful	33	113	3.42	56	1.70	-57	-50%
Total	64	198	3.09	85	1.33	-113	-57%
Berkeley County							
Successful	2	2	1.00	3	1.50	1	50%
Unsuccessful	39	47	1.21	65	1.67	18	38%
Total	41	49	1.20	68	1.66	19	39%
District of Columbia							
Successful	48	72	1.50	78	1.63	6	8%
Unsuccessful	29	74	2.55	34	1.17	-40	-54%
Total	77	146	1.90	112	1.45	-34	-23%
Fairfax County							
Successful	22	45	2.05	11	0.50	-34	-76%
Unsuccessful	9	6	0.67	18	2.00	12	200%
Total	31	51	1.65	29	0.94	-22	-43%
Prince George's County							
Successful	14	17	1.21	5	0.36	-12	-71%
Unsuccessful	1	0	0.00	1	1.00	1	100%
Total	15	17	1.13	6	0.40	-11	-65%

Table 17
Criminal Charges by Site (Continued)

2016 Cohort SITE	N	One Year Pre-Treatment		One Year Post-Treatment		Difference	
		Number	Avg.	Number	Avg.	Number	Percent
Prince William County							
Successful	7	12	1.71	3	0.43	-9	-75%
Unsuccessful	26	53	2.04	62	2.38	9	17%
Total	33	65	1.97	65	1.97	0	0%
Richmond							
Successful	11	42	3.82	11	1.00	-31	-74%
Unsuccessful	7	48	6.86	8	1.14	-40	-83%
Total	18	90	5.00	19	1.06	-71	-79%
Virginia Dept of Corrections							
Successful	5	13	2.60	0	0.00	-13	-100%
Unsuccessful	30	123	4.10	103	3.43	-20	-16%
Total	35	136	3.89	103	2.94	-33	-24%
All Sites Combined							
Successful	192	498	2.59	176	0.92	-322	-65%
Unsuccessful	212	568	2.68	445	2.10	-123	-22%
Total	404	1066	2.64	621	1.54	-445	-42%

Source: NCIC arrest records

IV. Conclusions

The 2016 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 16 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 2016, like their cohorts in previous years, were long-term criminals with an average age of nearly 40 years who had drug use problems.

Once the individuals were in W/B HIDTA-funded substance abuse treatment, the programs were able to keep nearly half of them (48%) in treatment long enough to have an impact on their criminal behavior and drug use. On average, clients in the 2016 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 pre- and post-treatment comparisons of arrest data for the 2016 cohort clearly indicate that the W/B HIDTA-funded programs as a whole continued to produce the desired effects within the target population. Criminal recidivism in the year following treatment was reduced significantly, regardless of whether the indicator used was the number of people arrested, the number of arrests, or the number of criminal charges filed. There was a 29% reduction from the year prior to treatment in the number of individuals arrested, a 44% reduction in the total number of arrests, and a 42% reduction in the number of criminal charges filed against the cohort members. The effects were most pronounced for drug-related crimes, which were reduced 70%, and for property crimes which were reduced 56%.

These positive findings are consistent with the results found in evaluations of the W/B HIDTA substance abuse treatment programs for the 2000 to 2015 cohorts.

Successful and Unsuccessful Treatment Outcome Groups

The study found that the 192 members of the 2016 cohort who were classified by treatment staff as having successful treatment outcomes (Successful subgroup) differed significantly from the 212 who did not successfully complete treatment (Unsuccessful subgroup) in regard to age, gender, and race. On average those in the Successful subgroup were four years older than members of the Unsuccessful subgroup. There were significantly greater percentages of males and African Americans in the Successful subgroup than in the Unsuccessful subgroup. Those in the Successful subgroup were in treatment for an average of 143 days, which was 35 days more than the 108-day average for members of the Unsuccessful subgroup.

In the year prior to treatment, 74% of the Successful group and 64% of the Unsuccessful group had been arrested. After discharge, just 36% of the Successful subgroup members were arrested during the one-year follow-up period compared to 61% of those in the Unsuccessful

subgroup. The average number of arrests per person during follow-up was 0.63 for the first group and 1.01 for the latter.

Within the Successful subgroup, 51% fewer individuals were arrested during the one-year follow-up period than in the year prior to treatment, and this group also had 58% fewer arrests and 65% fewer criminal charges at follow-up. In contrast, the Unsuccessful subgroup had a decrease of just 5% in the number of individuals arrested, a 31% decrease in the number of arrests, and a 22% reduction in the number of criminal charges. These findings indicate that successful completion of a substance abuse treatment program of sufficient length has a strong positive effect in reducing subsequent criminality.

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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 2016 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.

The second primary dataset consisted of arrest records obtained from the National Crime Information Center (NCIC). These records contained criminal histories as reported to the Federal Bureau of Investigations (FBI) for all subjects in the study, beginning with the first adult arrest through the present time. The number of arrests and type of criminal charges recorded in the NCIC records for the year just before treatment and during the one-year follow-up period constituted the critical measures of program outcome for this study.

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

Coding of Arrest Data

NCIC arrest records were provided to IBH staff by the W/B HIDTA Watch Center. The arrest records were verified against FBI identification numbers and by 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 social security numbers as well as date of birth. Aliases were noted. 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. All research data coding and analysis occurred at the W/B HIDTA office in Greenbelt, MD. 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 2016 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 were no missing data.

Limitations

The primary limitation of this study affecting the interpretation of findings regards the ability to compare study results for the 2016 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. Berkeley County in West Virginia was added as a new site for the 2016 cohort. While its 41 program participants constituted just 10% of the overall cohort, they comprised 18% of the Unsuccessful subgroup since 39 of these individuals did not complete treatment. The high number of unsuccessful treatments at this site resulted for the first time in an annual cohort in which the number of individuals in the Unsuccessful treatment subgroup was greater than the number in the Successful subgroup. Because the participants in this program were younger on average and predominantly Caucasian (90%), their overrepresentation in the Unsuccessful subgroup tended to inflate differences between this subgroup and the Successful subgroup on these variables. In addition, only 38% of those in Berkeley County who did not complete treatment had been arrested in the year prior to treatment. This lowered the overall percentage of Unsuccessful subgroup members who had been arrested during the pre-treatment study period to 64% – without Berkeley County in the cohort this figure would have been 70%, making it closer to the rate for the Successful subgroup (74%).

Appendix B

Arrest Data by Jurisdiction

Table B.1
Total Arrests and Number of Charges per Site for the 2016 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 = 15)**	**(n = 40)**	**(n = 87)**	**(n = 162)**	**(n = 29)**	**(n = 88)**	**(n = 28)**	**(n = 13)**	**(n = 34)**	**(n = 37)**	**(n = 64)**	**(n = 597)**
Drug Crimes (all)	2	30	33	63	3	26	24	2	12	26	29	250
Violent Crimes	1	2	3	9	3	17	1	2		1	3	42
Property Crimes	1	63	51	43	16	35	2	5	19	26	47	308
Public Order	1	6	10	6	5	16	2	5	6	6	5	68
Technical	18	5	72	56	21	48	22	3	25	27	50	347
Other	0	4	12	21	1	4	0	0	3	4	2	51
Total Charges:	**23**	**110**	**181**	**198**	**49**	**146**	**51**	**17**	**65**	**90**	**136**	**1066**
Post-Treat. Arrests	**(n = 20)**	**(n = 7)**	**(n = 23)**	**(n = 60)**	**(n = 41)**	**(n = 75)**	**(n = 21)**	**(n = 5)**	**(n = 33)**	**(n = 9)**	**(n = 40)**	**(n = 334)**
Drug Crimes (all)	4	1	4	20	13	13	2	0	7	4	7	75
Violent Crimes	1	0	2	2	0	12	4	2	4	0	4	31
Property Crimes	17	10	12	25	8	18	8	2	8	2	24	134
Public Order	3	1	4	3	3	12	0	2	8	0	2	38
Technical	57	3	12	18	39	55	15	0	38	12	66	315
Other	1	0	2	17	5	2	0	0	0	1	0	28
Total Charges:	**83**	**15**	**36**	**85**	**68**	**112**	**29**	**6**	**65**	**19**	**103**	**621**

Table B.2
Pre- and Post-Treatment Drug Charges per Site for the 2016 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	4	9	10	0	5	3	0	2	3	3	39
Miscellaneous Drugs	0	11	1	9	0	6	9	0	0	4	6	45
Possession	2	12	22	34	1	13	12	2	10	18	19	145
PWID	0	3	1	8	2	2	0	0	0	1	1	18
Other	0	0	0	2	0	0	0	0	0	0	0	2
Total Drug Charges:	**2**	**30**	**33**	**63**	**3**	**26**	**24**	**2**	**12**	**26**	**29**	**250**
Post-Treatment Charges												
Distribution (Selling Manufacturing)	1	0	0	2	2	3	0	0	1	1	2	12
Miscellaneous Drugs	1	0	0	5	2	1	1	0	2		1	13
Possession	2	1	4	10	2	8	1	0	4	3	4	36
PWID	0	0	0	3	2	1	0	0	0	0	0	6
Other	0	0	0	0	5	0	0	0	0	0	0	5
Total Drug Charges:	**4**	**1**	**4**	**20**	**13**	**13**	**2**	**0**	**7**	**4**	**7**	**75**