

**BOARD OF SUPERVISORS
FINANCE/GOVERNMENT OPERATIONS AND
ECONOMIC DEVELOPMENT COMMITTEE
INFORMATION ITEM**

SUBJECT: FY 2018 Budget Development – Substance Abuse

ELECTION DISTRICT: Countywide

STAFF CONTACTS: Erin McLellan, Management and Budget
Julie Grandfield, County Administration
Margaret Graham, Department of Mental Health, Substance Abuse
and Developmental Services

PURPOSE: This item provides information on substance abuse that the Committee may want to consider and discuss in advance of the FY18 budget process.

BACKGROUND: This item is part of a series of service level discussions being brought to the Finance/ Government Operations and Economic Development Committee (Committee) as part of the FY 2018 budget development process. It is meant to provide additional information on issues that need to be considered in advance of the Proposed Budget development so that the Board has time to engage in meaningful discussion at a time when the Board's overall direction on this topic can be formed. There are currently several areas in which staff has identified critical issues that are affecting current or required service levels. This item will present those issues associated with substance abuse.

Addiction

Addiction is a complex disease and requires a comprehensive approach to minimize the harmful consequences of addiction on individuals, families, numerous agency services, the health care system, and the community. According to the National Institute of Drug Addiction, addiction is defined as a chronic relapsing brain disease that is characterized by compulsive drug and alcohol seeking and use that continues despite harmful consequences to the health and well-being of individuals engaged in this behavior. It is considered a brain disease because drugs and alcohol change the brain, both the structure of the brain and how it works. Further complicating the disease of addiction is the stigma associated with the individual and the family as well as the counter argument that addiction is a choice, a moral failing, and/or due to weakness.

The individual with the disease of addiction is treated within a process of change through which their health and wellness improves. Research demonstrates that early attrition of individuals

entering substance abuse treatment is a common challenge. The individual's motivation level for change, which can range from resistant to eager, can influence his/her engagement. Another major contributory factor is the process to access treatment and how the provider offers a rapid and empathic response to an individual's request for treatment. When an individual, regardless of motivation level, reaches out for treatment, the provider's ability to ameliorate immediate crises, engage the individual in treatment, and remove barriers to enrolling in treatment significantly impacts the recovery process. Delays to start treatment interfere with recovery and can exacerbate the disease process. Earlier this year, the Community Services Board developed a paper titled, "The Disease of Addiction and its Impact on Loudoun County." Though this was previously distributed to the Board, a copy is provided in Attachment 1 due to its topical relevance.

Treatment Options

Below is a summary of treatment options, including a look at some of the gaps and barriers:

- Outpatient Services – The Department of Mental Health, Substance Abuse and Developmental Services (MHSADS) directly provides outpatient services, which are center-based therapy services. Capacity within MHSADS does not support same day admission.
 - Intensity: individual, group and family
 - Frequency: usually twice per week through once per month depending on the complexity of the clinical presentation; if clinical needs regularly indicate a frequency of more than twice per week, a more intensive level of treatment is usually recommended
 - Duration: depends on progression in recovery
- Medication Assisted (MAT) Therapy – MAT is prescribed medication in conjunction with therapy for opioid dependence and/or alcohol dependence (e.g., methadone, naltrexone, and buprenorphine). MHSADS does not provide MAT and does not have contracts with MAT outpatient providers.
 - Intensity: could be administered orally or via injection
 - Frequency: depends on medication; oral is usually daily and injection may be monthly
 - Duration: depends on type of medication and progression in recovery
- Intensive Outpatient (IOP) Service – IOP is structured programming which is provided three hours per day, and usually offered 3-5 days per week. MHSADS does not directly provide IOP services and does not have contracts with IOP providers.
 - Intensity: group based
 - Frequency: three hours per day for two or more days per week
 - Duration: depends on progression in recovery

- Residential Treatment Services – MHSADS does not directly operate any SA residential services; MHSADS contracts with vendors (none of which are in Loudoun County).
 - Intensity: detoxification, rehabilitation
 - Frequency: 24 hours a day, seven days a week
 - Duration: based on progression in recovery

MHSADS offers emergency services 24 hours/day, seven days a week. They also, in conjunction with the Sheriff's Office, operate the Crisis Intervention Team Assessment Center (CITAC) in the Shenandoah Square office building in Leesburg. The CITAC became operational on October 1, 2015. It is open from 7:00 a.m. to 11:00 p.m. 7 days/week. Usage of the facility has increased every quarter since becoming operational (from 100 individuals the first quarter of operations to 180 in the second quarter to 245 individuals in the third quarter). Additionally, law enforcement transferred custody of individuals subject to an Emergency Custody Order on 62 occasions resulting in the rapid return of patrol deputies to calls for service as opposed to waiting at the CITAC for evaluation and disposition. The grant that funds the CITAC ends on June 30, 2017. Local funding, including one FTE, would maintain service levels at the Crisis Intervention Team Assessment Center. An additional FTE to provide operational support would increase service levels.

With the exception of these emergency services, MHSADS relies on outpatient services as the treatment methodology for consumers with substance abuse issues. The need for services outweighs the staff resources available to meet the need in a timely manner. Calls for outpatient treatment often result in placement on a waiting list.

ISSUES:

Waiting Lists

Treatment options within MHSADS have been successful in engaging people in recovery; albeit there is a delay accessing services. In FY 2016, MHSADS provided substance abuse outpatient treatment to 817 individuals. Throughout FY 2016, 51 percent of individuals experienced a wait time of greater than 15 days to access ongoing substance abuse outpatient treatment. In some instances, individuals waited up to a maximum 111 days for services. Staff prioritizes individuals requesting treatment through clinical assessment and in compliance with the State performance contract, which is an agreement between the Virginia Department of Behavioral Health and Developmental Services and MHSADS.

There are different strategies to reduce and/or eliminate the waitlist. MHSADS seeks to partner with the community to augment services and reduce delays and gaps in access to treatment by purchasing contractual services to supplement MHSADS resources with a clinical contract manager to assure service quality, coordinated care, performance contract reporting, and outcome achievement. This enhanced level of service would significantly improve access to services, reduce the waitlist and better meet the needs of the community.

Following is an example of the effects of the delay to access services, the impact on recovery and the exacerbation of the disease process:

A woman spoke several times to her husband about his drinking and the negative consequences for their children, the family and their relationship when he is intoxicated. She was increasingly concerned about having him around their kids. Although he initially denied any problems, he agreed with his wife that he needed help to stop drinking. He called a private therapist who agreed to see him and required that he pay upfront and submit the paperwork to his insurance for out-of-network coverage. He could not afford the deductible of network coverage. He called MHSADS. He spoke with a clinician who conducted an assessment and recommended substance abuse outpatient treatment. The assessment resulted in low risk of suicide and he denied ever experiencing suicidal ideations. He did not meet any other priority population status and was told he would receive a call back to schedule an intake once MHSADS had capacity. He was provided the 24 hour Emergency Services number and information about community resources. MHSADS attempted to schedule an intake within 30 days and learned that he committed suicide within a week of calling MHSADS.

The Substance Abuse treatment community recognizes the importance of engaging individuals in treatment and support upon request and also recognizes the hope that someone feels when they are offered an appointment. The most effective and comprehensive approach is to utilize a full spectrum of services and supports to address the substance abuse issues in Loudoun County.

Interactions with Public Safety Personnel and the Criminal Justice System

Some individuals with addiction have encounters with law enforcement and/or the criminal justice system. The Department of Community Corrections works with individuals who are on pre-trial supervision or post-trial probation. Fifty three percent (53%) of referrals to MHSADS are from the Department of Community Corrections. Other referring agencies include the Department of Family Services, Loudoun County Public Schools, hospitals, law enforcement, and the Juvenile Court Service Unit.

According to Department of Community Corrections, substance abuse is the most frequent underlying reason for an offender's original criminal charge and is the most frequent contributing factor that negatively affects compliance with supervision conditions. Continued use of substances, including alcohol, when ordered to abstain, accounts for the majority of probation and pretrial violations which result in court action. Engagement with treatment for the addiction provides the person with strategies and services to improve chances of complying with the supervision conditions for the short term, and engaging them in long term treatment for the addiction that contributed to the original negative behavior.

Driving under the influence accounted for the highest number of supervision referrals from the courts to MHSADS. Alcohol is the predominant substance underlying the criminal charges of offenders referred by the courts to the Department of Community Corrections. During FY 2016,

of the 842 offenders placed on pretrial supervision, 221 were offenders charged with Driving Under the Influence. Of the 1,517 probation offenders supervised in FY 2016, 28 percent of them (428) were charged with Driving Under the Influence.

Between FY 2015 and FY 2016, LCSO experienced an increase in calls for service in which the person overdosed (from 158 to 172 for non-fatal; from 17 to 26 for fatal overdoses). Fire and Rescue reports that heroin accounts for 40 of the 172 non-fatal overdoses, and 20 of the 26 fatal overdoses.

A mother was making dinner for her family and was excited to have her daughter, who was recently released from jail, back at home. Her daughter was in jail due to stealing which she did to support her dependence on opioids. The mother was happy that her daughter got clean in jail and was connected to treatment. The mother went to check on her daughter because she didn't come down when dinner was ready. Upon opening her bedroom door, the mother found her dead, a needle was close by on the floor.

Narcan (naloxone) is an opiate antidote. Opioids include heroin and prescription pain pills like morphine, codeine, oxycodone, methadone and Vicodin. When a person is overdosing on an opioid, breathing can slow down or stop and it can be very hard to wake them from this state. Narcan (naloxone) is a prescription medicine that blocks the effects of opioids and reverses an overdose. If given to a person who has not taken opioids, it will not have any effect on him or her, since there is no opioid overdose to reverse. Advance Life Support (ALS) providers have been authorized to administer Narcan for decades. It is only recently (the 2015 General Assembly session) that firefighters and law enforcement officers who meet certain training requirements have been authorized to administer it. The availability of Narcan has prevented some overdose deaths in Loudoun. This is one of the tools for law enforcement and fire/rescue; however, a system that does not have adequate treatment options results in repeated reliance on law enforcement and/or fire/rescue administration of Narcan on the same person. Immediate engagement in comprehensive services is essential to break this ineffective and destructive cycle.

Data from Fire/Rescue for January 1, 2016, through April 29, 2016, indicated there were 71 incidents of overdose:

- 32 incidents had Narcan administered (11 of these incidents received more than 1 dose in an incident for a cumulative total of 43 doses).
- 30 incidents appeared to involve an opiate. Of those 30 opiates, 20 were assumed to be heroin. This assumption was based on careful review of the incident narrative, medical record diagnosis, lab results and patient history.
- In four incidents, LCSO administered Narcan prior to or upon EMS arrival. Two of these incidents were for the same patient. Three incidents documented the administration of Narcan with positive effect. One had no affect and was administered by LCSO upon arrival of EMS.

Incarceration and Reintegration

Within the Adult Detention Center (ADC), Loudoun County Sheriff's Office and MHSADS are co-located and have partnered to provide therapeutic services to male inmates receiving substance abuse treatment. This co-location offers therapeutic housing for up to 42 male inmates. Approximately 70 percent of inmates have a substance abuse diagnosis and go untreated due to staffing limitations. MHSADS is in the process of recruiting and training the three ADC Clinicians positions authorized in the FY 2017 budget process. Even with these additional resources, there are two significant gaps for the criminal justice-involved individuals with substance abuse: clinical coordination for programming within the ADC and forensic reintegration services for inmates with substance abuse issues released to the community. A clinical coordinator at the ADC would enhance service levels by addressing clinical coordination and reintegration, as well as serving additional inmates with substance abuse issues.

If individuals are not connected to treatment at release from incarceration, deaths via overdose following this period of abstinence are more likely. This is because the individual may return to an environment that triggers relapse and the individual uses the same quantity used prior to incarceration. His/her body cannot tolerate that quantity and the result is often an overdose. MHSADS has limited capacity to transition individuals with substance abuse diagnoses back into community living with natural (e.g. family, friends and church) and formal (any service that is paid for) supports at the time of release from the ADC. Within Loudoun County, there have been heroin-related overdose deaths soon after release from incarceration. Some localities have begun Medication Assisted Treatment within jails and then transferred the treatment to the community in an effort to improve successful community reintegration and increase recovery.

For individuals with the disease of addiction, without access to treatment, the following is likely:

- the illness progresses;
- complexity of treatment increases;
- the risk to the individual and on the community advances;
- requires higher levels of care through institutions like hospitals and sometimes detention centers;
- higher costs to the community;
- increases in crime;
- increases in support from other agencies; and
- possible death.

One effective strategy to address the substance abuse among individuals who are involved in the criminal justice system is to pair a substance abuse case manager with a probation officer. During the reintegration process, there is an immediate connection with a case manager to coordinate the transition into community supports and community based resources. The objective of the collaboration between the case manager and the probation officer is to support the individual to engage in treatment for the disease of addiction and to prevent further penetration into the criminal justice system, while successfully engaging in community

reintegration. This would reduce the likelihood of worsening conditions for the individual and the community. Creation of such a team would better meet the need of this population and would enhance service levels.

Drug Court

Drug Court was the County's only intensive outpatient modality for treatment of certain drug dependent individuals who were involved with the criminal justice system. See Attachment 2 for a summary of information related to the previous Drug Court in Loudoun which operated between 2004 and 2012. This Drug Court targeted only individuals who had been found in violation of supervised felony probation; and whose conviction originated in Loudoun County Circuit Court. The Court annually struggled to keep a robust group of participants largely due to stringent eligibility criteria which targeted only post-sentence non-violent adult felons who demonstrated non-compliance. This narrow margin of eligibility limited the number of criminally involved and drug dependent offenders who could be treated intensively.

Several Board members have expressed interest in possibly establishing another Drug Court in Loudoun. New Drug Courts have begun in the past two years in Arlington County and Frederick County, Virginia. If this model is considered again for implementation in Loudoun County, consideration could be given toward expansion of eligibility criteria to ensure that the maximum number of individuals possible can receive treatment. This widening of the net will identify and treat more individuals than the previous model used from 2004 to 2012.

It is the decision of the judiciary whether a Drug Court is established. The participation of the Commonwealth Attorney of the jurisdiction is critical to such a program. The Honorable Burke McCahill, Presiding Judge, Loudoun's Circuit Court and Jim Plowman, Commonwealth Attorney, will both be present at the Committee's November 15th meeting to offer their opinions regarding Drug Court to the Committee members.

Staff from departments represented in this item will also be present at the Committee meeting to address any questions the Committee members may have.

ATTACHMENTS:

1. Loudoun County Community Services Board "The Disease of Addiction and its Impact on Loudoun County"
2. Loudoun County Adult Drug Treatment Court Background and Historical Information Memo dated September 9, 2016



Loudoun County Community Services Board

Partners in a Caring Community

Angelo Wider, Chair



August 18, 2016

Chair Phyllis Randall
Fifth Floor, Mailstop #01
1 Harrison Street, SE
Leesburg, VA 20175

Sent VIA Email

Dear Chair Randall:

Attached please find the white paper you asked the Community Service Board to prepare regarding substance abuse, addiction and the impact on Loudoun County.

The paper addresses the definition of addiction, why people take drugs and the risk factors that increase vulnerability. We also gathered data on drug usage and found alarming trends. Several charts are included from various sources showing usage, treatment statistics and law enforcement drug related arrests.

The conclusion of the CSB is that substance abuse and addiction is a public health and safety issue in Loudoun. The CSB advocates for continued focus on public education, treatment, curtailment efforts and more emphasis on law enforcement.

This paper is just the tip of the iceberg. There are numerous related issues such as drug related crimes, physical abuse, drug trafficking and the risk of our young folk becoming victims of this disease. We need collaboration and cooperation at the highest level of county government to reverse this growing problem.

The CSB would be happy to address any questions and/or participate in any ongoing activity.

Sincerely,

A handwritten signature in black ink, appearing to read "Angelo Wider", is written over a horizontal line.

Angelo Wider, Chair
Loudoun County Community Services Board

cc: Ralph Buona, Tony Buffington, Geary Higgins, Matthew Letourneau, Ron Meyer, Koran Saines, Kirsten Umstattd, Suzanne Volpe, Tim Hemstreet, Julie Grandfield, Charles Yudd.

Loudoun County Community Services Board
The Disease of Addiction and its Impact on Loudoun County
July 2016

INTRODUCTION

Substance abuse and addiction is a widespread public health problem that has a negative impact on individuals as well as their communities. According to the National Institute on Drug Abuse (NIDA), annual costs associated with productivity, health, and crime-related issues related to substance addiction, exceeds \$600 billion. That includes an estimated \$193 billion related to illicit drugs, \$193 billion for tobacco, and \$235 billion for alcohol. Furthermore, these figures don't include costs difficult to quantify, such as family disintegration, domestic violence, child abuse, unemployment and failure in school.

Although Loudoun County is one of the most affluent counties in the nation, our community is not immune from the adverse effects of substance abuse and addiction. This paper summarizes the disease of addiction and its impact on Loudoun residents.

- **How do we define *addiction*?**

NIDA refers to addiction as a complex "brain disease." According to former NIDA Director Alan Leshner (1999), an individual's voluntary use of mood-altering substances transforms into involuntary addiction due in large part to "dramatic changes in brain function produced by prolonged drug use." These changes cause the abuser's behavior to be driven by compulsive craving for the drug.

According to the American Society of Addiction Medicine (ASAM), the following short definition of *addiction* was developed in 2011:

"Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death."

- **Why do people take drugs?**

NIDA described the following four basic reasons that people begin to take drugs in its 2014 publication "Drugs, Brains and Behavior: The Science of Addiction:"

- ***To feel good.*** Most abused drugs produce intense feelings of pleasure. This initial sensation of euphoria is followed by other effects, which differ with the type of drug used. For example, with stimulants such as cocaine, the "high" is followed by feelings of power, self-confidence, and
-

increased energy. In contrast, the euphoria caused by opiates such as heroin is followed by feelings of relaxation and satisfaction.

- ***To feel better.*** Some people who suffer from social anxiety, stress-related disorders, and depression begin abusing drugs in an attempt to lessen feelings of distress. Stress can play a major role in beginning drug use, continuing drug abuse, or relapse in patients recovering from addiction.
- ***To do better.*** Some people feel pressure to chemically enhance or improve their cognitive or athletic performance, which can play a role in initial experimentation and continued abuse of drugs such as prescription stimulants or anabolic/androgenic steroids.
- ***Curiosity and “because others are doing it.”*** In this respect adolescents are particularly vulnerable because of the strong influence of peer pressure. Teens are more likely than adults to engage in risky or daring behaviors to impress their friends and express their independence from parental and social rules.
- **Who becomes addicted to drugs?**

Vulnerability to addiction varies from person to person and is affected by risk factors and protective factors. These factors include environmental (home, family, school, peers) and biological (genetics, medical and/or mental health conditions). Other factors that increase vulnerability include age at first use and the method of administration. (Source: National Institute on Drug Abuse, 2014).

- **Data on use in Virginia and the United States**

According to the **White House National Drug Strategy Data Supplement of 2015**, 544,000 Virginians (8% of the population aged 12 or older) reported illicit drug use in the preceding month in 2012-2013. In 2002-2003, the reported incidence was 7.7%.

The national average in 2012-2013 was 9.3%, as compared with 8.3% in 2002-2003.

“Illicit” drug use for this report includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used non-medically.

The number of deaths from drug-induced causes in Virginia in 2013 was 890, as compared to 580 in 2003.

Drug-induced causes include specific mental and behavioral disorders due to psychoactive substance use, accidental poisoning by drugs, intentional self-poisoning (suicide) by drugs, assault (homicide) by drugs, poisoning by drugs of undetermined intent and a number of causes of death explicitly linked to drug use.

Reported national trends in primary substances of abuse at time of treatment admissions indicate marked increases in the use of opiates other than heroin (e.g., oxycodone, hydrocodone) and in the use of marijuana/hashish and stimulants.

- **How is Addiction diagnosed?**

Although terms such as *substance abuse* and *substance dependence or addiction* are still commonly used, the medical field has moved to a categorization of these disorders as *substance use disorders*. According to the **Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-V)**, substance use disorders can be mild, moderate or severe depending on how many of the following factors are relevant. These variables are applied uniformly for most classes of substances, including alcohol.

The disorder is determined to be severe if at least six (6) of these factors are identified:

- *(The substance)* is often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control *(the substance)* use.
- A great deal of time is spent in activities necessary to obtain *(the substance)*, use it, or recover from its effects.
- Craving, or a strong desire or urge to use *(the substance)*.
- Recurrent *(substance)* use resulting in a failure to fulfill major role obligations at work, school, or home.
- Continued *(substance)* use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of *(the substance)*.
- Important social, occupational, or recreational activities are given up or reduced because of *(substance)* use.
- Recurrent *(substance)* use in situations in which it is physically hazardous.
- *(Substance)* use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by *(substance)*.
- Tolerance, as defined by either of the following:
 - A need for markedly increased amounts of *(the substance)* to achieve intoxication or desired effect.
 - A markedly diminished effect with continued use of the same amount of *(substance)*.
- Withdrawal, as manifested by either of the following:
 - The characteristic withdrawal syndrome for *(substance)*.
 - *(The substance)* or a closely related substance is taken to relieve or avoid withdrawal symptoms.
- **Data on Substance Abuse and Addiction in Loudoun County**

There are several sources of statistics on the prevalence of substance abuse and addiction in Loudoun County and the social impact that it causes, as health and public safety agencies measure outcomes differently. The statistics that follow represent a snapshot of recent data from public and governmental agencies that serve Loudoun County residents.

Inova Loudoun Hospital

The most recent Community Health Needs Assessment developed for Inova Loudoun Hospital, dated May 24, 2016, identified nine issues as “significant health needs” in Loudoun County. One of those nine included “Substance Abuse and Excessive Alcohol Use.” The assessment reflected that many interviewees “identified substance abuse (including excessive alcohol use) as a significant concern. Prescription drugs, opioids, and alcohol were the most commonly cited substances.” It should be noted Loudoun’s rates for binge drinking and percentage of “driving deaths with alcohol impairment” exceed those of Virginia cities and counties and other U.S. states.

Loudoun Department of Mental Health, Substance Abuse, & Developmental Services (MHSADS)

During fiscal year 2016, MHSADS provided the following individuals substance abuse services:

Adults	Number	Percentage	Youth	Number	Percentage
Male	727	70%	Male	108	70%
Female	304	30%	Female	46	30%
Total	1031	100%	Total	154	100%

The individuals served by the Department were referred by the following sources:

Adults – Referral Source		Youth – Referral Sources	
Corrections/Courts/Probation/ASAP	53%	Corrections/Courts/ Probation	49%
Self	30%	Family	18%
Hospitals- State and Private	7%	Schools	7%
Family	2%	Hospitals (State & Private	5%
Other state or county agency	2%	Self	5%
Private providers and others	6%	Private providers and others	16%

Individuals who seek substance abuse services at MHSADS can report up to three drugs of choice. The following is a table of relative frequency of various drugs of choice:

Drug	Females %	Males %
Alcohol	38%	39%
Marijuana	29%	34%
Heroin and Opiates	12%	8%
Benzodiazepines	6%	4%
Cocaine	8%	7%
PCP/Hallucinogens	4%	5%
Amph/Methamphetamine	2%	2%
Others, OTC	1%	1%

The following chart illustrates reasons for individual treatment discharges from the Substance Abuse services for fiscal year 2016.

Discharge reason	%
Treatment Completed Successfully	27%
Non-Compliant	46%
Terminated AMA	7%
Incarcerated	4%
Relocated	2%
Discharge-Other	14%

Non-compliant discharges can occur for several reasons, including repeated positive screens and missed treatment appointments.

Public Safety Agencies

The Loudoun County Sheriff's Office (LCSO) reported the below substance-related *incident* statistics for the second half of fiscal year 2016 (January 1, 2016 – June 30, 2016). According to LCSO Public Information Officer, these figures represent calls for service and did not necessarily result in arrests.

Station	DUI	Public Intoxication (DIP)	Liquor Law Violations	Narcotics
Dulles South Station	29	26	19	84
Eastern Loudoun Station	80	88	25	207
University Station	80	65	19	175
Western Loudoun Station	40	12	4	60
TOTALS	229	191	67	526

The Leesburg Police Department (LPD) reported the following substance-related *arrest* statistics for the second half of fiscal year 2016 (January 1, 2016 – June 30, 2016):

Crime	Number
DUI	58
Public Intoxication (DIP)	75
Liquor Law Violations	26
Narcotics	62

These figures represent more than 1,200 substance-related incidents investigated by Loudoun law enforcement during a six-month period and do not reflect five law enforcement agencies (Virginia State Police, Purcellville Police Department, Middleburg Police Department, Northern Virginia Community College Police Department, and Metropolitan Washington Airport Authority Police Department).

According to Northern Virginia Monthly Heroin Report released by the Virginia Fusion Center (VFC) on May 25, 2016, law enforcement in Loudoun County and the Town of Leesburg had investigated a total

of 39 suspected heroin overdoses between January 2016 and April 2016 (a rate of nearly 10/month). During all of 2015, police investigated 43 suspected heroin overdoses (3.58/month).

Community Corrections Program

The Loudoun Community Corrections Program provides community supervision, investigations, and intervention services for offenders referred by the Loudoun Juvenile & Domestic Relations, General District, and Circuit Courts. These offenders reside in Loudoun County, are accused of a crime in Loudoun County, or have been convicted of a crime in Loudoun County; their crimes include drug and alcohol-related offenses.

According to the Program Director, their supervision statistics for fiscal year 2016 (July 1, 2015- June 30, 2016) reflected the following:

	Probation	Pretrial
Total Offenders Referred	1,492	682
Offenders Requiring Drug/Alcohol Testing	626 (42%)	215 (32%)
Offenders Requiring Substance Abuse Intervention (Assessment, Treatment, Meetings)	561 (38%)	169 (25%)

CONCLUSION

Substance abuse and addiction is a significant public health and public safety issue in Loudoun County. The service costs are excessive and will continue to rise resulting in greater resource issues for the county. Despite Loudoun County's affluence the trend of substance abuse and addiction is increasing. Our social economic status has no impact on substance abuse. However, countywide we must continue focus on public education, treatment, curtailment and enforcement.

The Community Services Board looks forward to working with the Board of Supervisors to ensure the treatment needs of our community's residents are adequately addressed.

OFFICE OF THE COUNTY ADMINISTRATOR

MEMORANDUM

DATE: September 9, 2016
TO: Chair Randall, Loudoun County Board of Supervisors
FROM: John Sandy, Assistant County Administrator
THROUGH: Tim Hemstreet, County Administrator
SUBJECT: Loudoun County Adult Drug Treatment Court Background & Historical Information

PURPOSE: This memorandum provides historical information summarized from past Board of Supervisors' legislative items and budget worksessions with regard to the former Loudoun County Adult Drug Treatment Court (ADTC) Program which was first established in June 2004 and defunded in April 2012.

BACKGROUND:

Drug Courts Overall: Typically, drug courts represent coordinated efforts of the judiciary, prosecution, defense bar, probation, law enforcement, mental health, social service, and treatment communities to break the cycle of substance abuse, addiction, and crime. The drug court participant undergoes an intense regimen of substance abuse and mental health treatment, case management, drug testing, and probation supervision while reporting to regularly scheduled status hearings before a judge. Drug courts may also provide job skill training, family/group counseling, and many other life-skill enhancement services.

Loudoun County's Version of Drug Court: Loudoun ADTC began out of a collaboration of multiple state and local government agencies through the Loudoun Circuit Court and the Community Criminal Justice Board (CCJB). Planning for the court first began in 1996 and the court held its first docket in 2004. The idea for the Court was initiated by Circuit Court Judge Thomas Horne (retired) utilizing best practices of other such programs found within the Commonwealth of Virginia and with the assistance of Community Corrections and MHSADS staff and the CCJB.

The proposed program found its way as an implementation objective as part of the Loudoun CCJB's mandated Strategic Plan. The CCJB believed this program was a useful tool in providing alternative sentencing programs in light of former overcrowding at the former ADC and the ADC Phase 1; and in addition to having a program that appears to have some success within other communities. As a result, a workgroup comprised of CCJB members and support staff were assigned to develop more fully an implementable program. This workgroup even made site visits at a number of other such programs within the Commonwealth.

Initially the program began with agencies volunteering and flexing their existing resources (mostly, staff time) in order to handle the extra early morning dockets once a week at the Circuit Court for the ADTC. The participating agencies included: the Sheriff's Office, Community Corrections, MHSADS, Circuit Court judges' office, and the Commonwealth's Attorney. ADTC began with its first docket in June 9, 2004 (FY 2005) as a "pilot" program using existing resources while direct appropriations backed by county local tax funding for an enhanced program began in earnest in FY 2007. Prior to FY 2007, the number of participants served was minimal and services (e.g., clinical and probation) were provided through existing departmental resources of Community Corrections, the Sheriff's Office, then MHSADS and the Circuit Court with no budget enhancements.

How did the Program Operate? Two Circuit Court judges presided over the drug court weekly and they imposed sanctions and incentives on program participants as appropriate. Enrollees were held accountable with immediate ramifications for negative behaviors. Probation violators who entered into ADTC were fast tracked through the criminal justice process in order to gain immediate access to treatment services. Participants in the program began substance abuse treatment the same day they entered into the program. A clinician along with the Substance Abuse Team coordinated treatment services for all participants, which might have included group, individual, and family therapy in addition as mental health and in-patient treatment, and other case management services.

A probation officer and a deputy Sheriff provided daily supervision of ADTC participants. The deputy conducted home, field, and employment contacts while the Probation Officer conducted office and other community contacts. Supervision ranged from daily to bi-weekly contact with participants. Drug tests are conducted at both scheduled and random intervals. New program participants were drug tested three to five times per week. Supervision also utilized a SCRAM device (i.e., ankle bracelet) which allowed for continuous alcohol consumption monitoring.

At least one and many times two attorneys from the Commonwealth's Attorney's Office assisted in the screening and eligibility process. They also provided on-going feedback regarding a participants' progress or lack thereof. A local criminal defense attorney served as liaison to the local Defense Bar and advocated for their participants' and their best interests. A Senior State Probation and Parole Officer served as the liaison to the agency where most of the program referrals originated. This Officer provided information regarding a probationer's prior performance on probation and other pertinent details regarding the alleged violations.

Other services utilized by the program included the following: financial, budgeting, health, employment, housing, transportation, life skills and many others. The Opportunities, Alternatives and Resources, or "OAR, Inc. of Fairfax" case manager voluntarily coordinated many of these services and facilitated a 12-week life skills class for all new participants. The program also worked closely at that time with the Department of Family Services, Good Shepherd Alliance, the Loudoun Aftercare Program, and other community volunteers for additional services.

Staffing: There were four positions ultimately assigned to the ADTC. Three positions began during FY 2007: a deputy Sheriff in October 2006, a MHSADS Clinician in November 2006, and a Drug Court Coordinator within the Circuit Court in January 2007. During FY 2008, a Probation Officer began in October 2007 and was previously grant funded. Prior to FY 2007, or October 2006 all positions assigned to the court were volunteered by their respective agencies as part of the Pilot program.

Who was eligible and what was required? Eligibility for Loudoun's ADTC was limited to non-violent, adult felons residing in Loudoun County who had violated the terms and conditions of their Circuit Court ordered supervised probation due to their alcohol and/or drug dependency. They had to be alcohol or drug dependent and had to have had a pending probation violation that was due to this dependency. These participants also had to be under supervised probation for a non-violent felony such as a DUI, and could not be on a parole or post release supervision or on probation for a jurisdiction other than Loudoun County, or have any other pending charges, which had the potential for a jail sentence. Potential participants voluntarily made application for entrance into ADTC.

Participants were required to work at least 30 hours a week. If they were employed less than 30 hours per week, they were required to complete community service hours on a weekly basis. Supervision officers regularly contacted employers including onsite verification of employment and feedback on job attendance and performance. Any participants who were required to pay child support were monitored by supervision officers and are include in their budgets. Many participants with child support obligations entered into payment plans and/or had their wages garnished in lieu of direct payments. At least four female participants had non drug-addicted babies during their participation. National experts at the time had stated that drug

addicted babies may cost the medical, social service, and educational system millions of dollar to treat as children and adolescents.

Program Participants, Length of Participation, and Historical Budget: Twenty-three (23) persons graduated from drug court since December 2011. Sixty (60) individuals had either been terminated, or withdrew from drug court. Loudoun County's former Drug Court required participation for a minimum of 12 months. The average length of stay for successful participants was 571 days and for unsuccessful participants it was 276 days during this same period. According to prior items, the total expenditures of the drug court program for all years in which local tax funds were expended (FY 2007-FY 2012) was \$1,929,163 for which revenue totaled \$743,815 had been received for a total use of local tax funding of \$1,182,348. For the period June 2004-December 2011, Loudoun County's program had screened 311 probation violators for eligibility while 94 probation violators had entered. The underlying offenses for these participants were broken down as the following: 52% drug offenses, 44% property crimes and 4% other.

Cost-Benefit Analysis Performed: In 2010 a cost-benefit analysis of the Loudoun ADTC was conducted and an information item was presented to the Board of Supervisors Finance Committee on December 15, 2010. Process and outcome evaluations and this cost benefit analysis from 2009 to 2010 were conducted by *Transformation Systems, Inc.* and provided to both the Board and other stakeholders in the former program. The complete report is attached to this memorandum for review but key findings include:

- recidivism is lower for drug court participants as compared to non-participants;
- recidivism costs are lower for participants within the first year; and
- program costs are lower than comparable time in jail.

Other areas of costs benefits of participants included the following: payment of court costs and restitution, child support payments, drug-free babies born and earnings from employment. The program reported benefits associated with participation in drug court such as a low recidivism rate. The recidivism rate for graduates from ADTC was 17% and participants at the time paid \$70,438 in fees and costs payments and more than \$20,926 in court costs and restitution payments.

Research at that time showed substance dependent persons who remained in treatment one year or more had twice the recovery rate of those who did not. Of the 94 that entered the program during that period, 76 remained in treatment 90 days or more and 38 of those participants remained in treatment 12 months, or longer. The total number of days spent in ADTC for all participants was 31,929 days.

The program reportedly adhered to a strict structure of intensive supervision. This close supervision encouraged participants to follow program guidelines and stayed focused on recovery/sobriety. A primary objective of the program was to require participants to develop and adhere to a regular schedule which included work and recovery activities. As mentioned, participants were required to work at least 30 hours per week and were routinely drug tested several times per week. They attended at least one and maybe several therapy sessions per week and at least four self-help meetings. Participants also were required to complete community service if they were not working full time. Over 8,000 hours were completed in Loudoun County as part of the service requirement and a total of 8,808 drug tests were administered with only 2.5% resulting in a positive test at that time.

ISSUES: The Board of Supervisors defunded the program during their FY 2013 budget deliberations (April 2012). At that time, there were several concerns raised by individual Board members regarding the program. Chief among these issues was that the total program cost per participant and per graduate (approximately \$12,189 and \$51,406 respectively over the life of the program) were viewed as being cost

prohibitive during this particular period of fiscal austerity. The number of graduates stood at only 23 since 2004, which was also perceived as being low. Further factoring into these judgements was the Board's knowledge that there was sufficient capacity for inmates at the County's newly constructed Adult Detention Center; and that the County had already "sunk" costs as part of the debt financing for this major correctional facility which was fully operational.

Furthermore, the Circuit Court's preference for ADTC was for it to only include adult participants who were non-violent, adult drug and substance abuse offenders with probation violations. This preference likely kept the number of participants and potential graduates low and likely impacted economies of scale and cost per individual. At that time, the Commonwealth's Attorney did not report as much return on investment for the program based upon his experience in comparison to the Circuit Court Judges. The Circuit Court Judges who were involved and the Drug Court Coordinator who was employed as part of that program presented as part of their justification to the Board that there were real benefits for those entering and possibly graduating from the program such as learning employment skills and an less overall reliance on other public programs including the cycle of incarceration.

Even though, average Loudoun ADC costs per inmate per day were greater than those for ADTC program participants costs per day (even with the capital costs excluded), there was more focus and attention on the total local tax funded cost per participant and graduate respectively and a genuine concern for the advice and counsel of the Commonwealth's Attorney at that time in history. Loudoun County's Community Corrections also expressed some concern for the additional workload related to the program and the small number of clients, which tied up a resource that maybe could have been used to lower caseloads as part of their other alternative sentencing programs.

Finally it is important to note that during the 2006 the Virginia General Assembly Session a law was enacted, named the Drug Court Act: Virginia Code Section 18.2-254.1. This Act empowered the Virginia Supreme Court with administrative oversight of all drug courts within the Commonwealth. The oversight requires the formulation of a statewide evaluation model, and ongoing evaluations of the effectiveness of all local drug treatment courts. This also means that a local governing body may not begin an drug treatment court without undertaking a planning process and seeking specific permission of the Virginia Supreme Court.

ATTACHMENTS:

Attachment 1: Loudoun County ADTC History and Achievements (circa 2012)

Attachment 2: Transformation Systems, Inc.: Cost-Benefit Analysis

Attachment 3: FY 2007 Actuals to FY 2013 Proposed ADTC Budgets including Grants

cc: Board of Supervisors
Tim Hemstreet, County Administrator
Julie Grandfield, Assistant County Administrator

LOUDOUN COUNTY ADULT DRUG TREATMENT COURT HISTORY AND ACHIEVEMENTS

Drug courts represent the coordinated efforts of the judiciary, prosecution, defense bar, probation, law enforcement, mental health, social service, and treatment communities to break the cycle of substance abuse, addiction, and crime. The drug court participant undergoes an intense regimen of substance abuse and mental health treatment, case management, drug testing, and probation supervision while reporting to regularly scheduled status hearings before a judge. Drug courts may also provide job skill training, family/group counseling, and many other life-skill enhancement services.

HISTORY

- Planning for the Loudoun County Adult Drug Treatment Court began with a trip to Roanoke in 1998 to see their Adult Drug Treatment Court. Members of the Community Criminal Justice Board along with the Circuit Court Judges became interested in pursuing a drug court as a result of this visit.
- Drug Court planning team was formed in April 2003.
- Drug Court Conference was held in Leesburg on October 2, 2003 at Ida Lee.
- Drug Court Planning Team attended three federally funded Drug Court Planning Initiative training sessions from January through July 2004.
- June 9, 2004 1st drug court docket. The program capacity was fixed at 10 participants.
- The Drug Treatment Court Advisory Committee held its first meeting in June 2004.
- July 1, 2004, the Drug Treatment Court Act, Virginia Code § 18.2-254.1, was enacted.
- July 2004, the Drug Court began data entry into the Drug Court Database and in July 2007 into the Drug Court Management Information System for data tracking purposes and to participate in the statewide Drug Court evaluations conducted by the Supreme Court of Virginia, Office of the Executive Secretary. These evaluations are submitted to the General Assembly annually.
- Loudoun County Board of Supervisors appropriated funds for three (3) FTEs to support Drug Court. However, funds were not utilized until the Fall of 2006 and Winter of 2007. The program capacity increased from 10 to 20 participants at this time.
- In 2005, OAR of Fairfax County, Inc. donated a Case Manager to the Drug Court eight hours per week to assist participants with social services and other ancillary needs
- Supreme Court of Virginia, Office of the Executive Secretary provided one-time funds to hire a Drug Court Probation Officer from October 1, 2006 through September 30, 2007. The position became county-funded after the grant expired.
- Drug Court was awarded a Federal Drug Court Enhancement Grant from the Department of Justice in the amount of \$93,769 for the project period October 2008 through September 2010.
- Drug Court was awarded a Federal Drug Court Expansion Grant from the Department of Health and Human Services in the amount of \$808,824 for the project period October 2008 through September 2011. The program capacity could increase from 20 to 40 participants with implementation of this project.
- The Team is currently researching the feasibility of the establishment of a non-profit organization to support the efforts of the Drug Court Program.



**Cost-Benefit Analysis of the Loudoun County Adult
Drug Treatment Court Program**

Prepared By

Transformation Systems Incorporated

September 2010

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EXECUTIVE SUMMARY

In 2009, the Loudoun County Adult Drug Treatment Court requested the collection, analysis, and interpretation of data to conduct a cost-benefit study of its drug treatment court program. This report describes an evaluation effort designed to answer key questions about drug treatment court costs and benefits, as well as analogous costs and benefits for similar offenders who did not participate in the program. The key question of this study is to compare the relative costs and benefits of drug court participants to similar offenders who do not participate in the program.

Data were collected through a combination of document and database reviews, staff interviews/surveys, data from the Virginia Drug Treatment Court Database, and other published data sources. This report summarizes findings with respect to the cost-benefit analysis, including the cost of program participation and an examination of costs during a one-year follow up period for both participants and non-participants.

Key Findings & Recommendations

This evaluation includes two specific samples: (1) 24 Loudoun County Adult Drug Treatment Court participants who were active on or since July 1, 2007 through June 30, 2009; and (2) 53 similar individuals who were referred to the Loudoun County Adult Drug Treatment Court during the same time frame but did not participate.

Based upon this review, the Loudoun County Drug Treatment Court program demonstrates promise in achieving cost-effectiveness; however, data limitations on several aspects of the cost analysis suggest that these results be viewed very cautiously and over the long-term. Program participants clearly show desirable recidivism outcomes as compared to non-participants. In addition, costs for non-participants are higher within a one-year tracking period as compared to participants, although the meaningfulness of this comparison is compromised by the inability to distinguish incarceration time for the initial offense from recidivism events for non-participants. It is also important to note that the initial cost of program participation is relatively high, as compared to alternative sanctions and similar estimates for drug court programs in other states. Given data restrictions, the ability to offset these costs should be examined over time, to assess long-term benefit and develop more sound conclusions.

Recommendations based upon these findings are outlined below.

Estimated Drug Court Costs

The Loudoun Country Adult Drug Court program has demonstrated positive recidivism outcomes for participants versus non-participants. However, considerations should be given to opportunities to reduce program costs, while retaining design elements to ensure the sustainability of reduced recidivism benefits.

Based upon available cost information, estimated costs for the Loudoun County Adult Drug Treatment Court program are higher when compared to benchmarking from other national

studies, as well as costs for similar Virginia offenders who did not participate in the program. The annual cost of drug treatment court participation is estimated at \$31,400 per participant for this program. Consequently, the Loudoun County program costs are somewhat higher than published statewide annual costs for other sanctions, such as Department of Corrections (DOC) incarceration, and community corrections,, though considerably less expensive than 12 months in the Loudoun County Jail (\$61,159). However, one-year recidivism tracking shows that similar non-participants have approximately twice as many arrests as program participants. A subsequently cost analysis for these outcomes indicates that expenses for drug court participants are about one-third less than non-participants during this one-year follow-up, but these results are difficult to interpret in the short-run due to data challenges.

Future Evaluation Activities to Assess Cost-Benefit

Cost-benefit analyses should be continued to examine cost-effectiveness in a long-term fashion.

While it is important to note that the sample size and tracking periods may be enhanced in future research and interpretations of findings will strengthen as more individuals complete program services, these findings show promising consistency with prevailing drug treatment court national studies. Continued tracking is recommended to assess the long-term costs of the program and subsequent outcomes, as compared to non-participants.

Future cost-benefit analysis may be designed to focus primarily on estimating benefits (costs averted) due to a decrease in criminal activity among drug-involved offenders, from a longitudinal perspective. Numerous data sources may be relevant for future cost-benefit analyses of Virginia drug treatment court programs, such as recidivism and probation officer caseload data (Department of Juvenile Justice and Department of Corrections); recidivism data from the Virginia State Police, and jail costs from the Compensation Board.

I. INTRODUCTION AND BACKGROUND

From a national perspective, the movement to create a drug treatment court model was initiated in the late 1980s as a response to increasing numbers of drug-related court cases. Drug treatment court programs are specialized dockets within the existing structure of Virginia's court system. They provide judicial monitoring, intensive substance abuse treatment, and strict supervision of addicts in drug-related court cases. The collaborative approach between the court and treatment provider is the core of the drug treatment court program. However, many other groups and individuals, such as probation and law enforcement supervision services, play a vital role in making these programs successful.

The specific design and structure of drug treatment courts is typically developed at the local level to reflect the unique strengths, circumstances, and capacities of each community. The mission of the Loudoun County Adult Drug Treatment program, which was officially launched in 2004, is to enhance public safety by reducing the impact of drug driven crime on the community through providing a cost effective and accountable system of supervision and treatment. By expediting the criminal justice process and improving access of offenders to an enhanced treatment program, the drug court program is designed to reduce recidivism, decrease the jail population and achieve associated costs benefits for the county.

The drug treatment court is a voluntary, court-supervised, intensive treatment program for non-violent adult drug offenders. Incorporating a post-adjudication model, the Loudoun adult program specifically focuses on serving probation violators. It is structured into four phases, which individuals must progress through to complete the program. Participants must remain in the program for a minimum of twelve months.

II. PROJECT APPROACH

The Loudoun County Adult Drug Treatment Court program contracted with Transformation Systems Incorporated (TSI) to plan and conduct a cost-benefit analysis for its adult drug treatment court program to meet the requirements of the Loudoun County Board of Supervisors and the grant requirements of the Substance Abuse and Mental Health Services Administration (SAMSHA). The premise behind cost-benefit research is to identify services that provide the most value, or benefits, at the lowest level of expenditures (Belenko, Patapis, and French, 2005). For programs such as drug treatment courts, cost-benefit analyses are most typically conducted (1) after a program has been in place for some time, (2) when there is an interest in making it permanent or possibly expanding it, (3) for programs with sufficient maturity, and (4) as an extension of impact evaluation, that is, for programs that have been demonstrated effective (Boardman, Greenberg, Vining, and Weimer, 2006; Rossi et al., 1999). To conduct the cost-benefit study, evaluators have followed guidance on primary steps recommended by other similar studies conducted in the United States.

For this analysis, cost information was collected through a variety of means, including reviews of published reports, relevant documents, and databases; interviews with program staff; and discussion with budget officers. A summary of calculation strategies is available upon request.

Costs were compared for two specific samples: (1) 24 Loudoun County Adult Drug Treatment Court participants who were active on or since July 1, 2007 through June 30, 2009; and (2) 53 similar individuals who were referred to the Loudoun County Adult Drug Treatment Court during the same time frame but did not participate. Each group was tracked for a one-year period to estimate post-program costs.

III. DEMOGRAPHIC PROFILE

The sample of Loudoun County Adult Drug Treatment Court participants available for this study included 24 individuals who were active on or since July 1, 2007 and had exited the program by June 30, 2009. A comparison group of 56 non-participants was also examined; however three of these individuals were excluded from the sample due to significant differences in their criminal histories. These offenders were referred to the Loudoun County Adult Drug Treatment Court during the same time frame but did not participate.

The demographics profile for participants and non-participants were similar, as shown in Table 1 below. Both participants and non-participants were most likely to be Caucasian males. Criminal histories were also very similar for the two groups.

Table 1: Demographic Profile of Project Sample		
Characteristic	Drug Court Participants	Non-Participants
<i>Gender</i>		
Male	67%	74%
Female	33%	26%
<i>Race</i>		
Caucasian	71%	57%
African-American	29%	22%
Other	0%	2%
<i>Criminal History</i>		
Avg. # felonies	1.3	1.2
Avg. # misdemeanors	1.5	1.7
<i>Total</i>	2.8	2.9

IV. COST-BENEFIT ANALYSIS

For the purposes of this cost information, a “cost-to-taxpayer” approach was utilized. This focus helps define which cost data should be collected (costs and avoided costs involving public funds) and which cost data should be omitted from the analyses (e.g., costs to the individual participating in the program). All non-taxpayer costs were omitted from this analysis, including participant fees, private donations, etc. Costs included in these analyses include both local and state funds combined.

Using the estimates provided by the local drug court partner agencies, a cost per participant has been computed based on the length of program participation. In Table 2 below, the total costs associated with the drug court program have been provided. The per participant cost for participants in our sample is \$33,816, with the most expensive agency cost being law enforcement.

Table 2: Average Program Costs Per Participant		
Cost Item	Avg. # Per Person	Avg. Cost Per Person
Attorneys (Commonwealth’s Attorneys and Public Defender)	56 weeks	\$1,170
Circuit Court (Two judges, Court Clerk and Drug Court Coordinator)	56 weeks	\$7,178
Drug Tests	115 tests	\$298
Jail Days as a Sanction	16 days	\$2,692
Law Enforcement (Supervision and Court Bailiff)	56 weeks	\$9,121
Probation	56 weeks	\$5,519
Residential Treatment	11 days	\$896
Treatment (Includes services from multiple clinicians)	56 weeks	\$6,942
TOTAL		\$33,816

The average length of drug court treatment for this group was 56 weeks, yielding an average weekly estimated cost of \$604 and an annual estimated drug court cost of \$31,408. This figure exceeds the average annual cost per participant ranges (generally, \$4,000 to \$20,000 depending upon the intensity of the program) found in other recent studies (Carey & Finigan, 2004; Carey et al., 2005). However, it is important to note that the Loudoun County program does utilize

two judges and two Commonwealth's Attorney staff, which is a departure from the typical implementation model.

Table 3 displays the comparative costs, when available, of individuals who participate in drug court programs versus those who do not participate, by involved agencies.

Cost Item	Avg. Cost Per Drug Court Participant	Avg. Cost per Non-Participant
Circuit Court	\$7,178	\$96
Commonwealth's Attorney	\$792	Unavailable
Public Defender	\$378	Unavailable
Treatment Agency	\$8,136	Unavailable
Probation	\$5,519	\$1,085
Law Enforcement	\$9,121	\$218

A comprehensive cost estimate for traditional court processing was unable to be developed due to the lack of data for attorney and treatment costs. In addition, several measures, such as probation expense, were based upon proxy measures based on the average state-supervised case, rather than the costs based upon actual probation time.

Each individual in the participant and non-participant samples was also tracked for recidivism during a one-year follow up period. For participants, the tracking period began upon exiting the drug court program. Because non-participants did not enter the program, tracking for this group began at the referral date.

Recidivism rates for this sample are shown in Table 4 below.

Recidivism Indicator	Drug Court Participants	Non-Participants
Average Number of Re-Arrests	0.42	1.09
Percentage with at least one Re-Arrest	25%	36%

As shown in Table 5 below, costs were then compared to assess the relative expense of recidivism for both groups, based upon the number of new arrests within the one-year tracking period. Relative costs should be considered very cautiously, due to data limitations, including:

- For non-participants, incarceration time costs for the initial precipitating offense could not be separated from incarceration time costs for the subsequent reoffending. Conversely, the average incarceration costs for participants reflects post-program incarcerations only.
- For non-participants, almost half of the sample showed no sentencing or incarceration time in the Virginia State Police and jail databases. Because virtually all persons referred to drug courts are facing incarceration time in lieu of program participation, this suggests that the data may lack accuracy in many cases within the non-participant sample. In general terms, it is reasonable to assume that the average incarceration costs should be considerably higher if complete data were available. As a reference point, a supplementary analysis of only those referral cases with sentenced time elevates the average cost per non-participant by more than \$10,000.
- Individually-based probation time was not readily available for this analysis, which prevented an examination of costs for actual probation days during the one-year tracking period. Because only proxy probation costs were available that would be applied to both groups for the post-program period, probation was excluded from this comparison.

Table 5: Recidivism Incidents for Participants and Non-Participants (One Year Tracking Period)		
Recidivism Items	Avg. Cost per Participant	Avg. Cost per Non-Participant
Re-Arrests	\$91	\$238
Court Cases (Convictions)	\$132	\$142
Jail Days	\$10,528	\$13,904
Prison Days	\$211	\$692
TOTAL	\$10,962	\$15,506

With these caveats in mind, and particularly considering the reasonable assumption that average incarceration costs for the non-participant sample is, on the whole, considerably underestimated, the findings suggest a promising trend such that drug court participants incur about 30% less expense in the one-year following program exit as compared to non-participants.

Given the challenges with delineating incarceration costs for the precipitating offense versus recidivist events for the non-participant group, a subsequent analysis was performed to determine costs over a 2-year period for the non-participants to ensure the overall tracking period was equivalent to the participant group. From this perspective, the costs of the initial offense that led to the drug court referral, as well as the costs of subsequent offending within this timeframe, are encompassed for both groups. This analysis showed that over a 2-year period total costs for the referral group was \$25,552 per case. A supplementary analysis using only the subset of non-

participants with sentenced time, as explained above, yielded a 2- year total cost of about \$35,158 per case. Comparatively, the cost for drug court participation combined with one-year recidivism costs for the participant population is \$44,777.

It is also important to note that the drug court participant sample includes those individuals who received some level of treatment, whether they exited the program successfully or unsuccessfully.

Community Revenues Generated by Drug Treatment Court Participants

In addition to the cost-benefit analysis described above, supplemental data that were available for drug court participants only were reviewed to consider additional potential benefits generated by drug court participants. These benefits include:

Restitution Payments: The 24 participants in this sample paid a total of \$13,428.69 in restitution since entering the program. These restitution payments are applicable to cases within the Loudoun County Circuit Court only. Program personnel indicate that many participants also make payments to other court entities.

Child Support Payments: Based upon discussion and reports from the Department of Child Support Enforcement (DCSE), program participants pay more child support during and after participation as compared to before program entry. Data from seven participants active in the DCSE system indicated, the average percentage of payments received essentially doubled during and after program participation.

Drug Free Babies: Of the eight female participants in this sample, two drug free babies were born during program participation. Based on a study in 2002, lifetime costs for caring for babies that are prenatally exposed to drugs or alcohol are estimated from \$750,000 to \$1.4 million (Kalotra, 2002). These costs have undoubtedly risen since that time in step with health-care cost trends.

Recent Prior Research on the Cost-Benefit of Drug Treatment Courts

In addition to the developing research in Virginia on the cost-benefit of drug treatment courts, ongoing research in other states provides promising news. Generally, findings from credible, published studies suggest that drug treatment courts, on average, do result in substantial cost savings for localities. Nationally, adult drug court regimens produce about \$2.21 in benefits for every \$1.00 spent in costs (Bhati, Roman, and Chalfin, 2008). In a study of nine drug treatment courts in the state of California, researchers found that drug court completion produced about \$3.50 in benefits for every \$1.00 spent, reflecting an average cost savings per client of approximately \$11,000.00 (Carey et al., 2006). In Oregon, a study of one drug treatment court suggested a benefit of \$2.63 per \$1.00 spent in costs, reflecting a cost savings per client ranging from \$6,744.00 to \$12,218.00 (Finigan et al., 2007).

V. SUMMARY

Based upon this review, the Loudoun County Drug Treatment Court program demonstrates promise in achieving cost-effectiveness; however, data limitations on several aspects of the cost analysis suggest that these results be viewed very cautiously and examined over the long-term. Program participants clearly show desirable recidivism outcomes as compared to non-participants. In addition, costs for non-participants are higher within a one-year tracking period as compared to participants, although the meaningfulness of this comparison is compromised by the inability to distinguish incarceration time for the initial offense from recidivism events for non-participants. It is also important to note that the initial cost of program participation is relatively high, as compared to alternative sanctions and similar estimates for drug court programs in other states. Given data restrictions, the ability to offset these costs should be examined over time, to assess long-term benefit and develop more sound conclusions.

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Grants Revenue

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	Actuals	Actuals	Actuals	Actuals	Actuals	Amended ⁹	Proposed ¹⁰
Office of the Executive Secretary, Supreme Court of Virginia ¹	\$ 35,578	\$ 28,694	\$ -	\$ -	\$ -	\$ -	\$ -
Dept. of Justice/Bureau of Justice Assistance ²	-	-	15,750	20,958	3,427	-	-
Dept. of Health & Human Services/Substance Abuse & Mental Health Services Administration ³	-	-	529	45,273	38,047	11,969	-
Office of National Drug Control Policy/High Intensity Drug Trafficking Area ⁴	-	-	-	91,520	116,597	150,757	81,300
Virginia Compensation Board Funding (LC50)	29,675	29,675	29,675	30,862	30,862	33,967	33,967
Drug Court Revenue Subtotal	\$ 65,253	\$ 58,369	\$ 45,954	\$ 188,613	\$ 188,933	\$ 196,693	\$ 115,267
<u>Expenditures</u>							
Circuit Court ⁵	\$ 4,639	\$ 85,432	\$ 92,566	\$ 90,906	\$ 80,898	\$ 96,100	\$ 97,658
Community Corrections ⁶	35,578	39,696	52,880	46,900	59,029	99,000	99,000
MHSADS ⁷	74,030	76,320	71,358	76,855	101,144	89,170	89,170
Sheriff's Office ⁸	100,748	105,788	111,093	111,093	111,093	113,847	113,847
Drug Court Expenditure Subtotal	\$ 214,995	\$ 307,236	\$ 327,897	\$ 325,754	\$ 352,164	\$ 398,117	\$ 399,675
Drug Court Total Local Tax Funding	\$ 149,742	\$ 248,867	\$ 281,943	\$ 137,141	\$ 163,231	\$ 201,424	\$ 284,408

¹Grant period 10/1/06-9/30/07

²Grant period 10/1/08-09/30/10

³Grant period 10/1/08-09/30/12

⁴Annual grants awarded on calendar year basis

⁵ Expenditures began in January 2007; FTE was reduced to part time in FY10

⁶Expenditures began in October 2007

⁷Expenditures began in November 2006

⁸Expenditures began in October 2006

⁹Reflects funds expended and allocations fiscal year to date

¹⁰Remaining grant fund balances roll from fiscal year to fiscal year so funds are not budgeted in advance

Emergency Department Visits for Unintentional Drug and Heroin Overdoses among Virginia Residents, January 2015 – August 2016

Report Generated: September 9, 2016

Chief complaints and discharge diagnoses of emergency department (ED) visits are analyzed to characterize the burden of unintentional drug and heroin overdoses across Virginia. This report includes visits of Virginia residents to 81 acute care hospital EDs and 13 free-standing EDs that occurred between January 1, 2015 and August 31, 2016.

Report Highlights: In August 2016, emergency department (ED) visits for unintentional drug overdose among residents in Virginia increased by 8% while visits for unintentional heroin overdose decreased by 20% compared to July 2016.

By health planning region, ED visits for unintentional heroin overdose decreased in four out of five regions. Visits in the Southwest Region increased from 4 to 8 visits but still accounted for the smallest proportion of visits by region (8%).

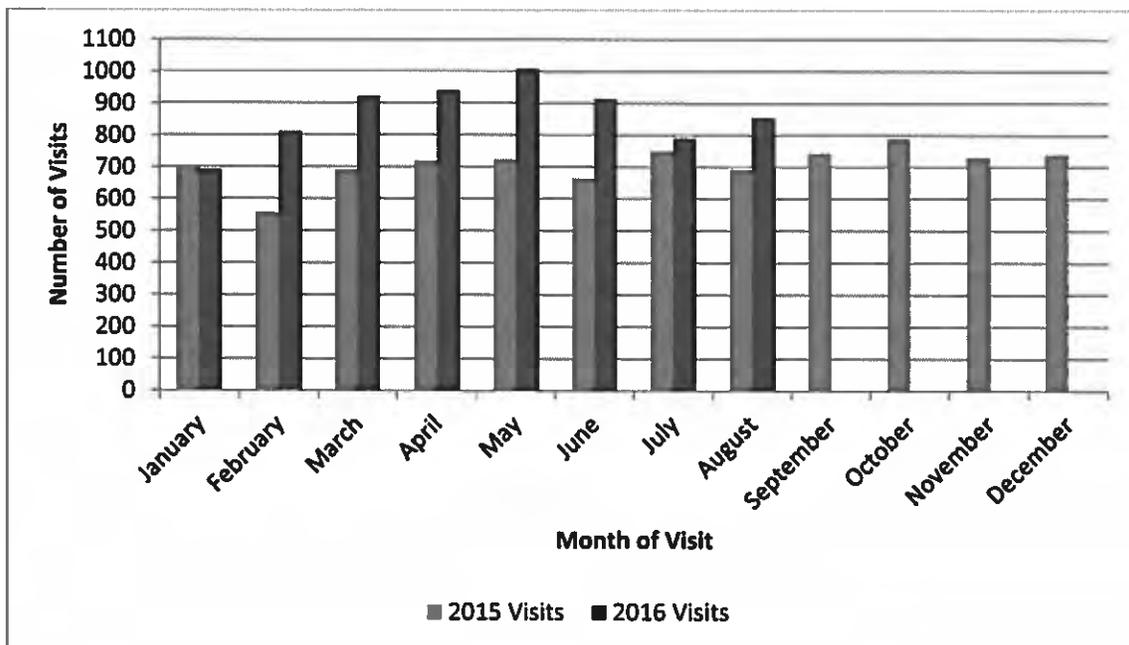
By sex, the number of ED visits for unintentional heroin overdose among females remained the same between July and August, while the number of visits among males decreased by 24 (28%).

By age group, ED visits for unintentional heroin overdose among 25 to 34 year olds continued to decrease for the 5th month in a row, but still accounted for the highest proportion of visits statewide (37%). ED visits for unintentional heroin overdose decreased among every age group except those 65 or older which remains the smallest proportion of visits (1%).

1. Number of ED Visits with Chief Complaint of Unintentional Drug Overdose among Virginia Residents by Month, 2015-2016

Inclusion terms from Chief Complaint only: overdose, OD, O/D, intoxication, substance abuse

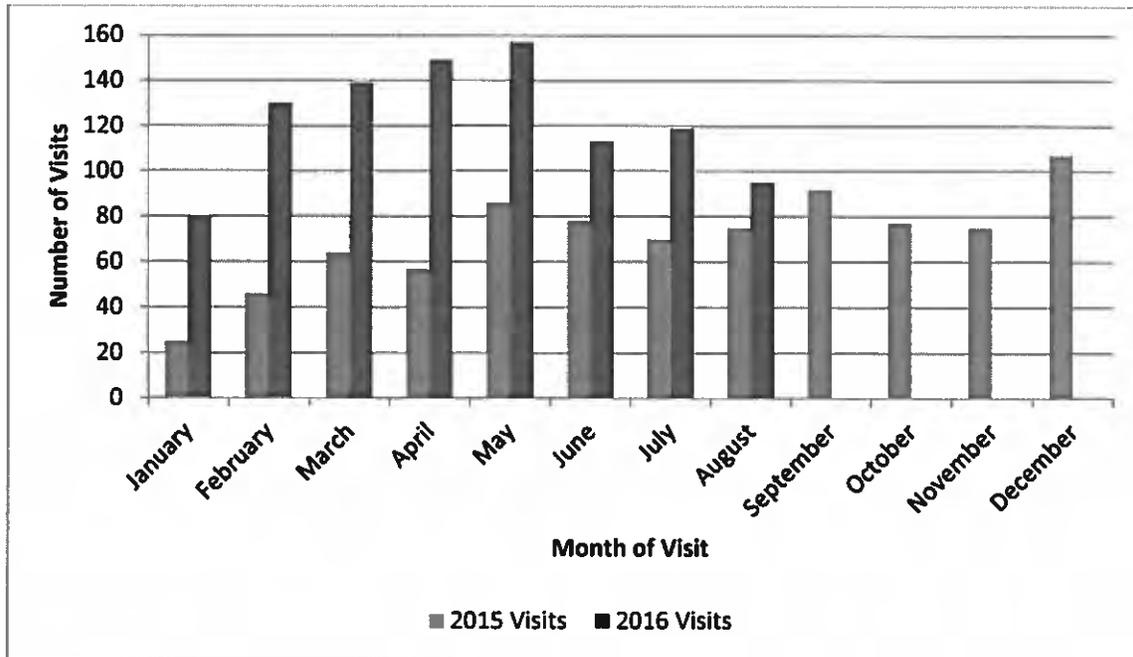
Exclusions terms from either Chief Complaint or Discharge Diagnosis: suicide, suicidal, intentional, alcohol



Unintentional heroin related ED visits are not excluded in the graph as these may be included when a chief complaint contains the terms "heroin overdose."

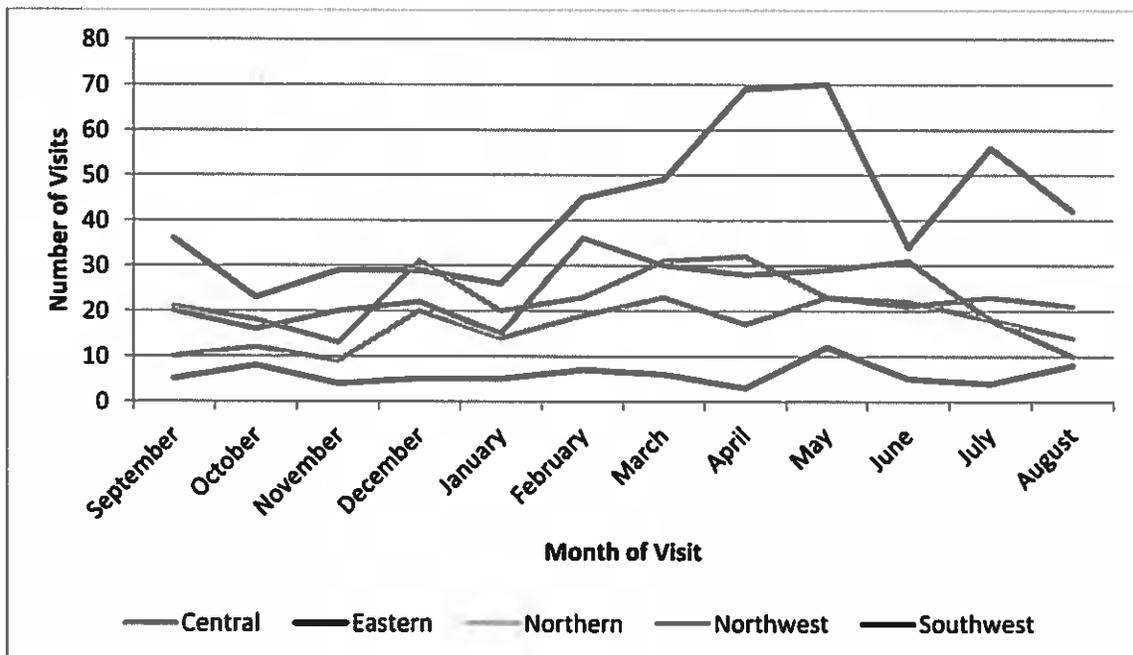
2. Number of ED Visits with Chief Complaint or Discharge Diagnosis of Unintentional Heroin Overdose among Virginia Residents by Month, 2015-2016

*Inclusion terms from either Chief Complaint or Discharge Diagnosis: heroin, herion, 965.01, T40.1X1A, T40.1X4A
Exclusions terms from Chief Complaint only: withdrawal, withdrawal, detox*



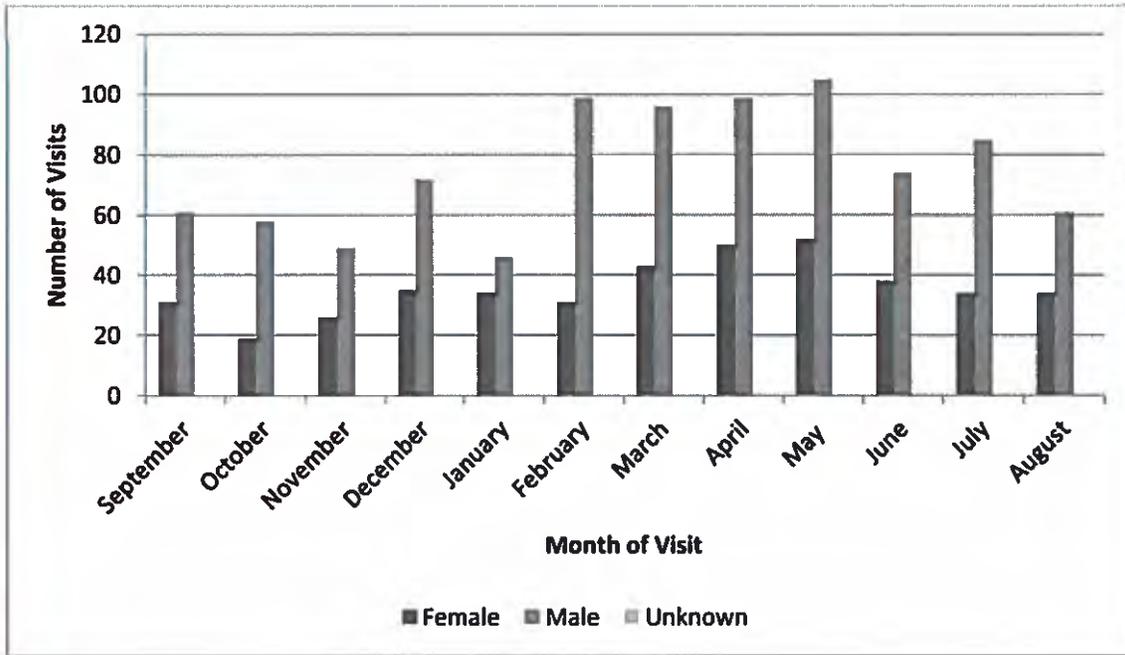
3. Number of ED Visits with Chief Complaint or Discharge Diagnosis of Unintentional Heroin Overdose among Virginia Residents by Month and Region, Previous 12 Months of 2015-2016

*Inclusion terms from either Chief Complaint or Discharge Diagnosis: heroin, herion, 965.01, T40.1X1A, T40.1X4A
Exclusions terms from Chief Complaint only: withdrawal, withdrawal, detox*



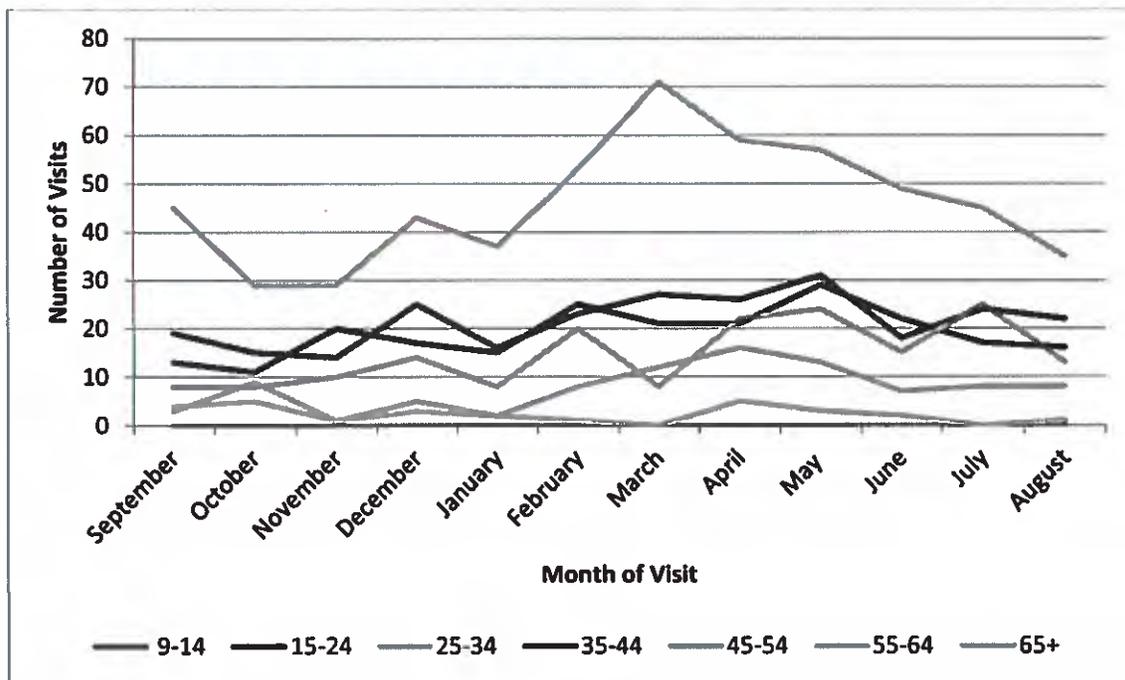
4. Number of ED Visits with Chief Complaint or Discharge Diagnosis of Unintentional Heroin Overdose among Virginia Residents by Month and Sex, Previous 12 Months of 2015-2016

Inclusion terms from either Chief Complaint or Discharge Diagnosis: heroin, herion, 965.01, T40.1X1A, T40.1X4A
Exclusions terms from Chief Complaint only: withdrawal, withdrawal, detox



5. Number of ED Visits with Chief Complaint or Discharge Diagnosis of Unintentional Heroin Overdose among Virginia Residents by Month and Age Group (years)*, Previous 12 Months of 2015-2016

Inclusion terms from either Chief Complaint or Discharge Diagnosis: heroin, herion, 965.01, T40.1X1A, T40.1X4A
Exclusions terms from Chief Complaint only: withdrawal, withdrawal, detox



*Individuals less than 9 years of age are excluded from analyses

6. Rate of ED Visits with Chief Complaint or Discharge Diagnosis of Unintentional Heroin Overdose among Virginia Residents by Health District and Month, Previous 12 Months of 2015-2016

*Inclusion terms from either Chief Complaint or Discharge Diagnosis: heroin, heroin, 965.01, T40.1X1A, T40.1X4A
Exclusions terms from Chief Complaint only: withdrawal, withdrawal, detox*

Health district-specific rates of unintentional heroin overdose visits were calculated per 100,000 population* in order to describe geographic distribution across Virginia. Health district is based on zip code of patient residence. Visits missing zip code of patient residence were excluded from rate calculations.

Changes in rate of ED visits for heroin overdoses between July and August 2016: increase in 5 districts, decrease in 18 districts, and no change in 12 districts

Locality	Population Estimate	Rate per 100,000 Population by Month												
		Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	
Alexandria	150,575	1.33	0	0	1.33	0.66	0	0.66	0.66	0	1.33	0.66	0.66	0.66
Alleghany	179,224	0	1.67	0.56	1.12	0	0.56	0.56	0.56	2.79	0.56	0	2.79	
Arlington	226,908	0	0	0	0	0.44	0.44	0	0.44	0	0.44	0	0	
Central Shenandoah	293,467	0	0.68	0	0	0.68	0.34	1.02	0.34	0	0	0.68	0.34	
Central Virginia	257,835	0	0	0	0	0	0	0.39	0.39	0.39	0	0	0	
Chesapeake	233,371	3.43	1.71	2.57	2.57	0.86	3.00	3.43	6.86	4.29	2.57	4.29	3.86	
Chesterfield	378,679	1.32	0.79	1.58	1.32	0.53	3.96	1.32	0.53	0.79	2.38	0.53	0	
Chickahominy	150,898	0.66	0	1.33	1.99	0.66	1.33	0	0.66	1.33	1.99	0.66	0	
Crater	155,789	1.28	1.28	1.28	0.64	0	3.85	2.57	0.64	1.93	0	1.28	0.64	
Cumberland Plateau	109,889	0	0	0	0	0	0	0	0	0	0	0	0	
Eastern Shore	45,142	0	0	0	0	0	0	2.22	2.22	0	0	0	0	
Fairfax	1,175,622	0.26	0.51	0.34	1.11	0.34	0.60	0.85	0.77	1.11	0.85	0.94	0.68	
Hampton	136,879	0.73	0.73	2.19	0.73	0	1.46	3.65	3.65	6.58	0.73	4.38	2.19	
Henrico	321,924	1.86	1.24	0.62	1.24	1.86	2.49	2.49	4.97	2.80	1.55	2.17	1.24	
Lenowisco	91,301	0	0	0	0	0	0	0	0	0	0	0	0	
Lord Fairfax	230,199	2.61	0.43	0.87	3.48	0.87	2.61	1.30	1.30	3.48	1.74	2.61	2.17	
Loudoun	363,050	0.28	0.28	0.55	1.10	0.55	1.38	2.20	1.38	0.83	0	0.55	0	
Mount Rogers	190,942	0	0.52	0	0	0	0	0	0	0	0	0	0	
New River	181,605	0	0	0	0	0	0	0	0	0	0	0	0	
Norfolk	245,428	2.44	1.22	2.85	2.04	0.41	5.30	5.30	8.15	6.52	2.85	2.85	5.30	
Peninsula	348,629	0.86	0.86	0.57	1.15	2.01	0.86	0.29	1.72	2.29	0.86	2.01	0.86	
Piedmont	102,939	0.97	0	0	1.94	0	1.94	0	0	0	1.94	0	0	
Pittsylvania-Danville	104,827	0	0	0	0	0	0	0	0	0	0	0	0	

Locality	Population Estimate	Rate per 100,000 Population by Month											
		Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Portsmouth	96,004	7.29	4.17	2.08	3.12	3.12	5.21	3.12	5.21	10.42	7.29	8.33	7.29
Prince William	503,349	0.79	0.79	0.60	0.20	1.19	1.19	0.79	0.20	1.39	1.59	0.79	0.99
Rappahannock	352,679	1.42	0.28	0.85	2.84	1.42	1.42	3.69	1.98	1.13	1.42	0.85	2.55
Rappahannock-Rapidan	172,958	2.89	2.89	2.89	1.73	4.63	5.20	4.63	8.09	2.89	3.47	4.05	2.89
Richmond City	217,853	2.30	3.21	3.67	3.21	2.75	1.38	5.97	3.67	5.51	5.51	2.75	1.84
Roanoke	99,428	5.03	3.02	2.01	3.02	5.03	4.02	4.02	0	6.03	4.02	3.02	2.01
Southside	82,890	0	0	0	0	0	0	0	0	0	0	0	1.21
Thomas Jefferson	244,403	2.05	3.68	1.23	2.86	1.23	0.82	1.64	2.45	2.45	2.45	2.05	0.41
Three Rivers	140,811	0.71	1.42	0	2.84	0.71	2.84	2.84	2.13	0	0.71	2.84	0
Virginia Beach	450,980	2.22	1.11	0.89	1.11	2.66	2.00	2.66	2.44	3.10	1.33	2.00	0.44
West Piedmont	140,414	0	0.71	0	0	0	1.42	0	0.71	0	0	0.71	0.71
Western Tidewater	149,398	0	0.67	3.35	0.67	0	1.34	1.34	1.34	2.01	2.01	3.35	3.35
VIRGINIA TOTAL	8,326,289	1.10	0.91	0.89	1.25	0.96	1.56	1.67	1.78	1.89	1.35	1.43	1.14

*Rates were calculated utilizing the 2015 U.S. Census locality population estimates, available through the U.S. Census <https://www.census.gov/popest>.

Please direct questions or comments to the Division of Surveillance and Investigation, Enhanced Surveillance Team:
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