



**Snohomish County  
Adult Drug Treatment Court  
Process, Outcome and Cost-Benefit Evaluation**

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## Executive Summary

The Snohomish County Adult Drug Treatment Court (SCADTC), launched in 1999, is one of the more established and long-running drug court models in Washington State. In 2012, Snohomish County contracted with researchers at Washington State University to conduct a process, outcome and cost-benefit study of the Snohomish County Adult and Family Drug Treatment Court programs. This report covers the findings of the study of the Snohomish County Adult Drug Treatment Court (SCADTC). Evaluation of the Snohomish County Family Drug Treatment Court is provided in a separate publication.

This research is divided into three major components. The process evaluation describes how well the drug court team follows written program policies and procedures, as well as team adherence to the nationally supported 10 Key Components (National Drug Court Institute). The outcome evaluations seeks to determine if the program improved short and long-term outcomes for participants, as compared to a matched comparison group of those that did not receive the drug court service. The core focus of the outcome evaluation is determining if drug court participants remain crime free, serve less time in jail/prison, and complete treatment at greater rates than individuals who participate in the traditional system. The final section of the report details the relative costs of managing chemically dependent adults charged with felonies that participate in the SCADTC versus those individuals that process through the regular criminal court.

*Process Evaluation:* This analysis compares how well the adult drug court team followed written program policies and procedures, as compared to national “best practice standards.” These standards have recently emerged in the research literature as being correlated to stronger program outcomes (see Table One below). Multiple methods were used to assess program practices, including direct staffing and court observations (field visits), focus groups with prior participants, drug court case management (DCCM) system review, on-line team member survey and document review. The results of the process evaluation were released to the SCADTC team in April, 2013. Shortly following the release of the process evaluation, training was scheduled and was conducted by WSU Researchers in October 2013. All SCADTC team members, including additional court personnel and judicial officers, attended the training. The intent of the training was to provide targeted technical assistance based on the results of the process evaluation to ensure that the team was following best practice standards.

Overall, the SCADTC has been implemented as intended in policy and according to the 10 Key Components. As is highlighted in Table One, the SCADTC team carefully follows and executes 8 of 12 identified best practice standards. After the training in October 2013, the team then focused in on increasing compliance to 12 of 12 identified best practice standards. In summary, the team is comprised of all necessary members, including law enforcement and treatment. The team embraces a non-adversarial approach and has strong

communication across team members, both in and outside of the courtroom. Originally under Judge Bowden, and now Judge Wilson, solid team leadership is provided and both Judges engage in a fair and balanced approach with clients. Snohomish County is fortunate to have a strong data management system (DCCM) in order to track clients, generate monthly reports and monitor their data for program changes. In addition, the program operates with less than 125 participants, which has been correlated with stronger outcomes.

While there are numerous strengths within the SCADTC, WSU researchers noted several program areas that could benefit from further improvements and adjustments. The October 2013 training focused on ensuring that the SCADTC develop written guidelines for incentives and sanctions. A large portion of training time was spent on discussion and providing examples of the proper use of incentives and sanctions for behavior change, and the team re-evaluated the heavy reliance of jail as a sanction for drug court clients. As was stated above, specialized training was provided to the SCADTC on these topics and changes were made to improve areas where the team was not meeting national best practice standards.

*Table 1. Drug Court Best and Promising Practices – Snohomish County ADTC Adherence Checklist*

Drug Court Practice	SCADTC Following Practice
1. Judge, Prosecutor, Defense Attorney, Treatment, Coordinator and law enforcement all attend staffings <sup>1</sup>	Yes
2. Treatment communicates with team via email	Yes
3. Program caseload is less than 125 participants	Yes
4. Drug tests results are available within 48 hours and tests collected at least two times per week in first phase	Yes
5. Judges spends at least 3 minutes engaging with clients during court hearings	Yes <sup>2</sup>
6. Court uses internal data in on-going basis to make program adjustments	Yes
7. Sanctions are imposed immediately	Yes
8. Team members have a response guideline for sanctions	No
9. Participants must be employed or attending school in order to graduate	Yes
10. Ancillary services are offered and completed to meet offender needs (e.g. health care, dental)	No
11. Team uses jail sparingly as a sanction	No <sup>3</sup>
12. Team members are fully trained in the drug court model. Doesn't include on-the-job training	No <sup>4</sup>

*Outcome Evaluation:* The core focus of an outcome evaluation is determining if drug court participants' access and complete treatment at greater rates than individuals who participate in the traditional system, remain crime

<sup>1</sup> It is especially critical that law enforcement and treatment attend both staffing and court in order to ensure reductions in recidivism and cost savings.

<sup>2</sup> Average time spent in court hearings engaging with the Judge was 1 minute, 39 seconds. The range, however, was 14 seconds to 4 minutes, 45 seconds. Clients that are doing well are only required to do a very brief appearance in front of the Judge, hence the lower average of time spent.

<sup>3</sup> Determined via review of 2012 caseload data available from DCCM

<sup>4</sup> While training does occur, it is often on the job. Team members need to participate in varied types of State and/or National level training within three months of employment.

free, and spend less time in jail/prison if they do reoffend. Data was collected and analyzed from a variety of Snohomish County and statewide data base systems.

Findings show that:

- SCADTC subjects possess significantly fewer days waiting to access treatment, and reduced their time to treatment entry by 60% (119 days) in contrast to the comparison group. This is most likely contributed to the availability of case managers via the SCADTC to assist with system navigation and treatment brokering.
- 100% of SCADTC clients participated in outpatient treatment, as compared to 89.5% of the comparison group.
- SCADTC clients spent 74 more days in outpatient treatment.
- SCADTC participants spent an average of 66 more days in some form of treatment (outpatient inpatient, other).
- Treatment costs were significantly higher for the SCADTC than comparison group, but this is to be expected given their quicker access and rates of usage.
- There is no statistical difference for new arrests between the SCADTC participants and comparison group, with both groups experiencing an arrest (for misdemeanors, felonies and/or warrants) less than 60 days from program/index completion.
- The SCADTC participants spent significantly greater amounts of time in jail, but this is to be expected given the historical heavy reliance on jail as a sanction by the court.
- Removing “jail as sanction/hold days” revealed that SCADTC spent an average of 61 days in incarcerated while the comparison group spent 77 days.
- SCADTC participants have 50% lesser odds of being sent to prison as compared to their study counterparts.
- For those SCADTC participants that did reoffend, they remained in the community for 452 days before incarceration in prison, while the comparison group only spent 160 days in the community.

*Cost-Benefit:* The cost-benefit study for this project focuses solely on the allocation of taxpayer dollars as it pertains to the various treatment processes, and the court and correctional systems. The study measures the overall operational costs of the program, the cost of the traditional court and treatment process, and which agencies contribute to the drug court and traditional court process and at what cost. The overall cost-benefit study aims to answer the question of: What is the economic benefit from operating the Snohomish County Adult Drug Treatment Court? Analysis of both direct and indirect costs found that the total net present value benefit associated with their broader societal perspective is \$3,541 per participant. This results in an 8% return on investment, or \$1.35 worth of benefits for every \$1 in costs.



Overall, the SCADTC program has been successful in addressing their main goals of recidivism reduction (as measured by prison incarceration) and increasing treatment engagement and completion. It is important to note that this study is a historical analysis of the program from 2009 and 2010. Due to the economic downturn during that timeframe, the court was forced to limit participants and minimize some supports and services. Since that time, many improvements have been made to the policies and operations of the court based on national best practice standards and the court has returned to serving an average daily population of 100 clients.

In the following sections, the history and background of the drug court movement and development of the SCADTC is reviewed in detail, and findings from the process, outcome and cost-benefit study are described in detail.

## Section A: Introduction

This report is being submitted by researchers with the Washington State University (WSU) Department of Criminal Justice and Criminology (DCJC) and the Department of Health Policy Administration (DPHA) in response to the request for a process, outcome and cost-benefit evaluation of the Snohomish County Adult Drug Treatment Court (SCADTC) and Family Drug Treatment Court (FDTC).

This report covers findings from the *process, outcome and cost-benefit study* of the Snohomish County Adult Drug Treatment Court (SCADTC) program. Evaluation of the Snohomish County Family Drug Treatment Court is provided as a separate publication.

For the process evaluation, this report examines how well the SCADTC follows their outlined policies and procedures, as well as the drug court model as specified by the 10 Key Components for Successful Drug Courts as established by the National Drug Court Institute (NDCI). Data for the process evaluation was gathered via document review, on-site observations of court and staffing procedures, focus groups of prior participants, on-line and staff interviews, and drug court case management database (DCCM) reviews. Findings from these various sources are combined to produce a general understanding of how well the team is following and implementing the intended program and served to inform the outcome and cost-benefit studies. Completion of the process evaluation also provided for a training feedback component based on the findings.

For the outcome evaluation, this report seeks to determine whether the drug court is effective in achieving its goals when compared to traditional systems/interventions. The core focus of the outcome evaluation is determining if drug court participants remain crime free and complete treatment at greater rates than individuals who participate in the traditional system. Data was collected and analyzed from a variety of Snohomish County and statewide data base systems.

The WSU research team constructed a retrospective purposive sample of all subjects who participated in the Snohomish County Adult and Family Drug Courts in 2009 and 2010 (representing the experimental group) and a similar sample of subjects participating in traditional court proceedings within the county and sample frame years (representing the comparison group). For the SCADTC evaluation, all study subjects were charged with a felony drug offense and had not been previously convicted of a sexual or violent offense. Both groups were followed for 24 months following their completion of the drug court (experimental group) or their court referral to and completion of drug treatment and court imposed requirements (comparison group). Recidivism and key treatment measures are examined, comparing each group over the follow-up period.

The cost-benefit study for this project focuses solely on the allocation of taxpayer dollars as it pertains to the various treatment processes, and the court and correctional systems. The study focuses on determining the overall operational costs of the program, measuring the cost of the traditional court and treatment process, understanding which agencies contribute to the drug court and traditional court process, and at what cost, and finally, what is the economic benefit from operating the adult drug treatment court.

## Section B: Background

Drug-associated crimes contribute to an overwhelming number of court cases in the United States. In the 1980's, the number of drug-related crimes grew rapidly, quickly overburdening the courts and resulting in the reallocation of already scarce criminal justice resources (Drug Court Clearinghouse and Technical Assistance Project (DCCTAP), 1999). In response, criminal justice officials scrambled to find a way to significantly and thoroughly address an overwhelming population of addicted offenders that were flooding court systems across the country. A unique response was born in Dade County, Florida in 1989, when a group of court and justice system officials (including then State Attorney Janet Reno) began an integrated and coordinated process of addressing offenders and their complex needs. Rather than simple sentencing and handing a defendant off to the correctional system, the court would now remain involved, with a team of criminal justice and treatment professionals tracking, monitoring, and treating the defendant, often referred to as "client," for an extended period of time. This model, commonly referred to as drug courts, was quickly replicated across the country. This wave of new programming has created significant structural changes in how courts and treatment providers manage "specialized" populations. According to latest figures available, there are an astounding 2,734 drug courts in operation in the United States, compared to just over 1,000 ten years prior (Fox and Wolf, 2004; National Drug Court Resource Center, 2012).

The strength in the drug court model rests in the use of rehabilitative methods, such as drug abuse treatment, which has been found to significantly reduce recidivism rates among adult offenders (DCCTAP, 1999; U.S. Government Accountability Office, 2005; Washington State Institute for Public Policy, 2003). Even involuntary treatment has shown to reduce criminal participation both during and following the treatment program (Kleiman and Smith, 1990). Instead of the traditional process of arrest, conviction, and incarceration, the drug court process focuses on addressing addiction and improving the participant's life in basic areas such as housing, education, and work through a combination of treatment and supervision. The general goals of the drug court are to reduce recidivism and drug use and increase treatment completion. There is some strong evidence to suggest that these goals are being met (Carey et al., 2012; Mitchell et al., 2012; Rempel & Zweig, 2011). The key to reducing recidivism in the drug court, and increasing treatment completion rates, however, appears to be the result of a complicated mix of team dynamics, use of evidence-based treatment modalities and retention, treatment staff engagement in the model, use of extensive and varied incentives and sanctions, and the ability of the team to properly follow the model. These necessary conditions are discussed in detail in the following sections.

## Section C: Overview of Snohomish County Adult Drug Treatment Court

The idea to implement a drug court began in Snohomish County in October 1997 with the cooperation of various criminal justice practitioners such as the County Prosecutor, Public Defender, Superior Court Representative, Everett Police Department, City Council, Department of Corrections and Human Services and other various community agents (Cox, Brown, Morgan, & Hansten, 2001). After submitting a Drug Court Planning Grant in 1998, the Department of Justice/Drug Court Program Office (DOJ/DCPO) approved and funded the project during its initial planning stage from 1998-1999. Federal funding was not, however, available for drug court launch in 1999. After a long deliberation as to whether to commence with a small pilot project while deprived of federal funding, the planning committee decided to proceed on what funds they could accrue themselves. The pilot was facilitated within the Snohomish County Superior Court, and after its first year of operation, the project received a Byrne Grant. In 2001, the project received a three-year implementation grant, which allowed the program to develop further and to stabilize as a standard court program. In December 2008, the Snohomish County Council approved the Snohomish County mental health and chemical dependency sales tax. A portion of this funding, combined with other state and local monies, funds and supports the current operations of the Snohomish County problem solving courts. These courts include the Adult Drug Treatment Court, Family Drug Treatment Court, Juvenile Drug Court, Juvenile At-Risk Youth Drug Court, and Mental Health Court.

*Current Operations:* The Snohomish County Adult Drug Treatment Court (SCADTC) operates as a court-supervised, deferred prosecution, pre-plea program that combines the concepts of treatment and supervision through hearings, drug testing, mental health and substance abuse treatment, and many other requirements. The program is designed to accommodate 100 participants at any given time. Similar to many other courts of its nature, the SCADTC requires participants to relinquish their right to a speedy trial, approve of facts specified in the police report, and enter into a written contract with the court agreeing to comply with any and all drug court mandates. Figure 1 identifies each of the major components of the program, as well as entry/exit points, treatment options, and ancillary services.

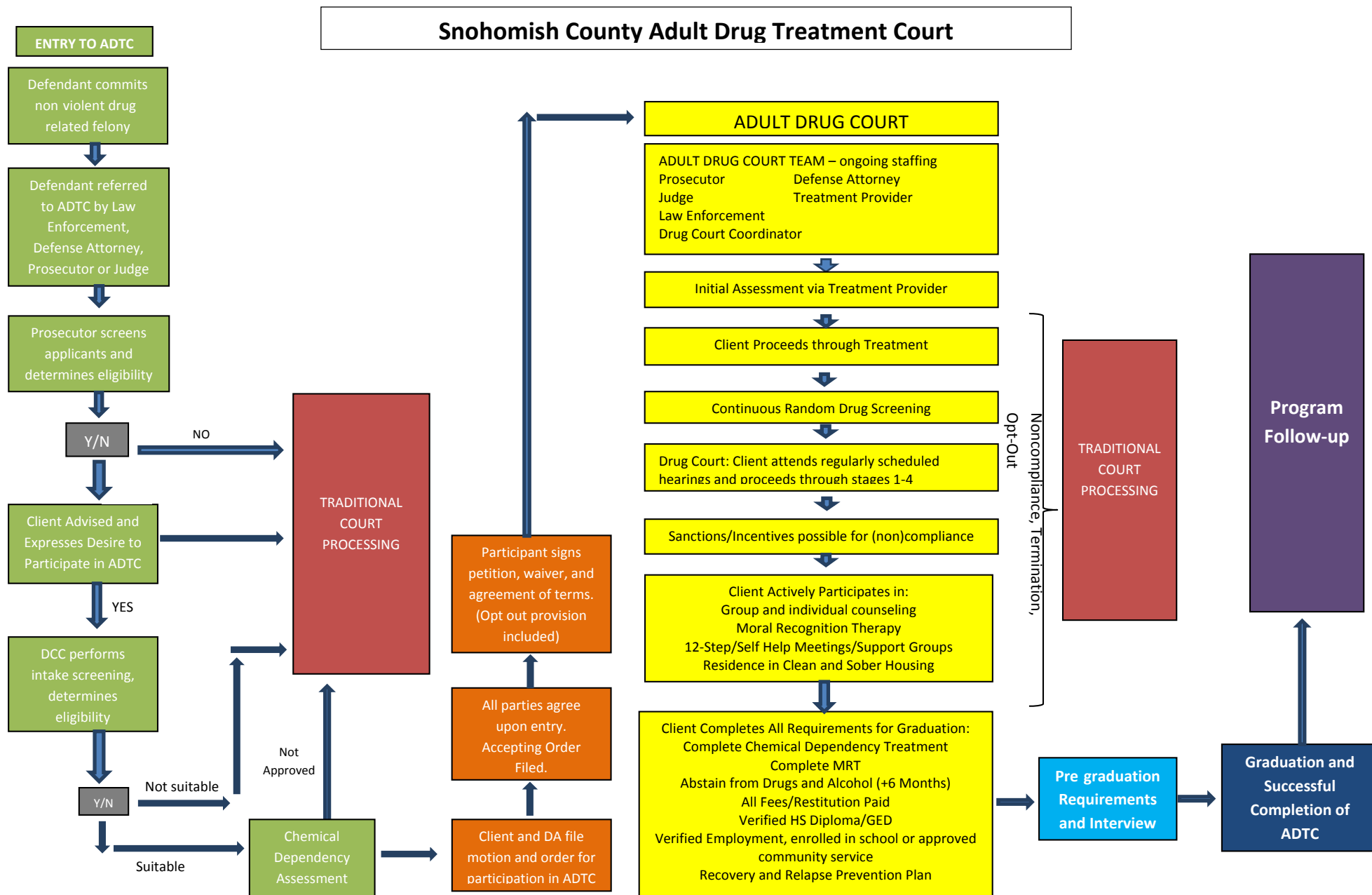


Figure 1. Components of the Snohomish County Adult Drug Treatment Court.

In the sections that follow (Sections D, E and F) a detailed report is provided for the activities and findings of the process, outcome and cost-benefit studies of the SCADTC. As was stated above, there is a large body of evidence at this time that supports the effectiveness of adult drug court programs in reducing recidivism and increasing treatment completion rates of participants (Carey et al., 2012; Mitchell et al., 2012), but these findings continually support that certain conditions and activities must be present within the program in order for it to be successful.

## Section D: SCADTC Process Evaluation

### Activities and Findings

Washington State University researchers collaborated with the Snohomish County Adult Drug Treatment Court (SCADTC) staff and team members to conduct the following activities:

1. Multiple on-site visits to achieve the following goals:
  - a. Observe Adult Drug Court staffing sessions,
  - b. Observe Adult Drug Court hearings,
  - c. Observe the traditional court docket,
  - d. Conduct focus group sessions with past adult drug court participants, and
  - e. Meet with key individuals involved with the drug court (known as the Drug Court Team).
2. Distribution, collection, and assessment of an electronic survey to adult drug court team members indicating their program's adherence with the 10 Key Components (NADCP, 1997).
3. Undergo a thorough process evaluation and follow-up with the drug court team on targeted areas for change through a presentation of the findings and training on methods of improvement.
4. Answer any questions or concerns which may arise in the presentation of the findings, or during the overall process of the evaluation.

#### Focus Groups and Electronic Survey Assessment

Evaluators from Washington State University conducted focus group sessions with past participants from the adult drug court. Both males and females were included in the focus groups (n=10), and the session lasted one hour in length and covered approximately 20 questions addressing the program's strengths and areas for improvement, as well as adherence with the 10 Key Components. All of the focus group members involved had participated in and completed (either through graduation or termination) the drug court prior to the focus group sessions. The findings from the focus groups indicated some similarities and differences between intended policies and actual processes and are discussed in more detail under each component.

For the team survey, the Washington State University research team was fortunate enough to partner with NPC Research (Portland, OR) who granted WSU researchers access to NPC's drug court survey tool. This tool has been used extensively across the nation to evaluate programs across numerous domains. The survey was approximately 130 questions and took under one hour to complete. The questions were grouped by their association with each of the 10 Key Components in addition to addressing basic demographic and procedural questions. Surveys were received from nine adult drug court team members. Findings from the surveys are covered in detail in the sections below.



## Adherence to the 10 Key Components: Snohomish County Adult Drug Treatment Court Findings

Outlined below are findings from the staffing/court observations and survey results as it relates to adherence to the NADCP 10 Key Components, as well as their ability to follow internal policies and procedures. Each component is listed, along with a brief literature review of “what works” for each component. This information is then compared to strengths of the team in executing the component, recommended areas for improvement (referred to as Targeted Areas of Improvement (TAI)). Given that training was provided October 2013, updated findings based on the training provided to the team are also presented when applicable.

### **Key Component #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing.**

This component is focused on the creation of a collaborative and cooperative team, which generally includes the judge, prosecutor, defense attorney, case managers, substance treatment, coordinator, law enforcement, mental health provider and probation. This process differs from the traditional system in that it brings treatment into the court process and the team is expected to embrace a therapeutic philosophy when handling cases. Teams are required to create policies and procedures to guide the court in decision-making and to provide continuity across clients. Strong policies and procedure manuals can also be used for training and orientation of new staff.

Research has shown that courts with all team members present and participating in both staffing and court have stronger outcomes (greater reductions in recidivism and stronger cost savings) than courts that do not have all team members actively involved in these steps. This is why it is especially important that law enforcement is an identified team member and participates in both staffing and court. Courts that have active law enforcement involvement experience better outcomes (Carey et al., 2012). Team members should be assigned to the drug court for a minimum of two years, and judicial officers should be assigned for 2 to 4 years, rotate off the bench for a period of time, and then return to serve again if possible. This rotation method has been correlated with stronger program outcomes.

In addition, teams that utilize email for communication on important topics/issues that occur outside of the regularly scheduled drug court show stronger outcomes as well (Carey et al., 2012).

*Findings:* Observations of the ADC team staffing and hearings revealed that all team members were present and engaged. The average amount of time spent staffing a case was just over three minutes (range 23 seconds to 20 minutes, 16 seconds). Discussions were cordial and respectful of each discipline, although some team members were more active (e.g. the judge, treatment and coordinators) than other positions. During staffing,

the judge will call a case to open the discussion, and then generally the drug court coordinators (case managers) or treatment will lead off with updates for the week. Detailed discussions were only conducted on those clients that appeared to be struggling for the week or were in non-compliance.

The Snohomish County ADC utilizes two treatment providers, Evergreen Manor and Catholic Community Services, both of which appear to be fully integrated members of the team. The treatment information shared during staffing centers around basic compliance, with little discussion about the type of treatment modality for the client, or the cognitive-behavioral work that is being completed by the client. However, the providers submit detailed treatment notes in DCCM by 2:30 PM the day before staffing/court. This log contains information on the client ranging from treatment progress, conditions in the home, peers, challenges, etc., and is available for review by all team members.

Team discussions during staffing centered on the use of traditional substance abuse treatment, and mental health services when warranted. No other identified services were discussed during staffing. When surveyed, staff reported a menu of services that were offered, but not necessarily required for participation.

Focus group participants believed the drug court team to be, for the most part, understanding and supportive; although a few clients believed that the judge did not totally understand the severity of their issues/needs and “where they were coming from.” The participants believed the judge to be understanding and “*stern but supportive – like a loving parent*”. It was clear from the focus group that certain clients felt more “connected” to the judge than other clients, which is a common finding among drug court participants.

*Strengths:* The Snohomish County ADC displays a high level of commitment and dedication among its team members, and strong leadership is provided by Judge Bowden. The team is diverse and representation is present, in both staffing and court, from all required “core” team members, including law enforcement.

Strong communication also exists outside of the drug court, with the team consistently utilizing email for information sharing outside of court, which has been shown in the research to be correlated with better program/client outcomes (Carey et al., 2012). Given that the drug court is so large (100 participants at a time) this email communication is critical for proper and responsive case management.

*Targeted Area of Improvement (TAI):* The primary focus for Key Component One is the creation of an integrated and high functioning team. “Collaborative advantage” (Huxham & Vangen, 2005) refers to a state that is reached within teams whereby greater outcomes are achieved as a team rather than as individual agencies. In other words, all team members are fully trained on policies and procedures, there is a shared understanding of these procedures, the mission and goals are all agreed upon, and team members believe that they gain more personally and professionally from participating on the team. Their levels of knowledge about

the underlying conditions (i.e. addiction and ancillary services) should increase drastically, and they should be able to experience greater results than as with the traditional system.

Review of the survey results show variations in policy and program knowledge across the team members. This is not uncommon in courts that experience rotating positions or frequent changes to staffing patterns. In order to address this, SCADTC is encouraged to review their current policies and procedures as a full team. This could easily be accomplished by setting aside an extra 30 minutes before Friday staff meetings to address policy and participant handbook updates. There were numerous program operation questions on the survey where the responses varied widely. The team should review the following:

- Eligibility and referral process and wait-list time (to be discussed under Component #3),
- Written list of incentives/sanctions (to be discussed in detail under Component #6), and
- Types of services available vs. actual use. The team is encouraged to create a wider and more thorough use of secondary services such as parenting courses, health care, housing, etc. (to be discussed in detail under Component #4).

In addition, the team (primarily Judge Bowden and Program Manager Janelle Sgrignoli) should meet with area law enforcement administration to seek a longer team service term (minimum of one year, ideally two) for assigned officers. The law enforcement representative should be carefully selected, willing to adopt the balanced-approach philosophy, and have an understanding and acknowledgement of complexity of addiction.

*One-Year Update:* Judge Bowden transferred out of the SCADTC in September 2013, and The Honorable Joseph Wilson now serves as the drug court judge. Judge Wilson quickly assumed the leadership role in the program and attended the NADCP national drug court conference in both 2013 and 2014. In addition, the team has experienced a change in the law enforcement representative once again, but according to SCADTC administration, the current representative is fully engaged and committed to the model. Sergeant Terrance Warren of the Snohomish County Sheriff's Department attends weekly staffing and court, executes warrants on those that absconded from the program, attends outside events, and is a member of the local drug task force.

The team continues to experience rotations in the treatment position (which mirrors national trends as well), but with the last departure, the ADC trained Supervisor of Evergreen Manor has stepped in to cover treatment duties and this appears to be a strong fit.

A key finding in the adult drug court literature is that drug courts that use their data on-going to make program adjustments have greater reductions in recidivism and greater cost savings. One unique component (as compared to other drug courts in Washington) in Snohomish County is the position of the Drug Court

Specialist. This individual supports all data needs and requests, provides back-fill for positions when positions are empty such as the Coordinator, completes all monthly reports for the team, judges, grants, funders, provides oversight of the DCCM and conducts on-going quality assurance checks on data collection procedures for the court.

**Key Component #2: Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.**

In the traditional court system, the prosecutor, defense attorney and judge are considered the core courtroom workgroup. The traditional system is adversarial in nature, and focused heavily on case disposal given the overwhelming number of cases that flood the court system annually. In the drug court setting, the defense attorney and prosecutor are expected to work together as team members, and to embrace a therapeutic and balanced-approach philosophy. In addition, they should both be concerned with the creation and proper use of legal forms for the drug court. The prosecutor remains focused on public safety under the model, while the defense attorney remains focused on due process rights for clients under the model.

In an effort to reduce costs, some drug courts across the country have eliminated the use of the defense attorney and/or prosecutor in either (or both) the staffing or court proceedings. This can also occur if there is a philosophical divide between the elected prosecutor and office of public defense on the purpose and goal of the drug court program. Research has shown, however, the importance of having these team members present during both court and staffing. Carey et al. (2012) have found that courts that have both the prosecutor and defense attorney present in staffing and court have stronger graduation rates.

*Findings:* According to the focus groups, the primary source of referral was through their lawyer or defense counsel. In regards to model adherence by team members, clients indicated that the team took a balanced approach regarding their treatment and accountability to the program, and believed that the judge relayed this information to them in a positive way.

The prosecutor and defense attorney were both present in staffing and court, and took an active role when necessary. Both appeared to have “shifted” from their traditional adversarial roles, and on some select cases even agreed upon sanctions for non-compliance.

These two positions rotate every two years, and the team just experienced (January, 2013) a rotation in these key positions.

*Strengths:* Both the Defense Attorney and Prosecutor appeared to embrace the philosophy of the drug court model and understood their role requirements. When disagreement did occur, it was handled in a professional manner.

*Targeted Area of Improvement (TAI):* Given the recent transitions, it is critical that both positions receive comprehensive drug court training within the first three months of employment. Carey et al. (2012) found that courts that invested in implementation training experienced 238% greater cost-savings than programs that did not. Training is often seen as an unnecessary cost in these difficult budget times. However, as it related to the drug court (and other criminal justice and treatment programs for that matter), the small investment in training allows the team to exercise greater adherence to the model, hence increasing outcomes.

*One-Year Update:* Both the prosecutor and defense attorneys have been in their respective drug court positions for 1.5 years, and Program Administrator Janelle Sgrignoli has requested that each representative remain on the team to mirror the four-year cycle that the judicial officers embrace. Both position fully embrace their roles and the philosophy of the model, work well as team members, and have been afforded a high level of training.

**Key Component #3: Eligible participants are identified early and promptly placed in the drug court program.**

This component is focused on the rapid identification, legal and substance abuse screening and quick entry of clients into the drug court model. Researchers and experts in the field of substance abuse treatment argue that quick identification and placement into needed services and support can capitalize on the “open window” whereby potential clients recognize the need for change and help.

Eligibility for drug court is defined as a set of legal and clinical (abuse/addiction severity) criteria that is established by the drug court team and used to screen clients into the drug court, or to exclude them. Reasons for exclusion can include prior criminal history, severity of crime (e.g. sexual offense), lack of treatment need, or treatment needs are too severe for the drug court to address (e.g. co-occurring disorders, with schizophrenia present).

All drug court teams are expected to have a written set of eligibility and target criteria outlined in policies and procedures. This includes types of offenses that are eligible and not eligible for referral, level of substance abuse/addiction that must be present, and other target criteria such as high risk/high need, no use of suboxone, and/or no major mental health disorders.

Several key research findings on screening and time to admission have shown that courts that engage in the following experience greater reductions in recidivism and/or cost-benefit (lower investment and outcome costs):

- Operate as pre-plea and accept felony as well as misdemeanor offenders,
- 50 days or less from arrest to drug court admission (as time to entry increases, so does cost),

- The court allows non-drug charges, and
- Program caseload is less than 125 clients.

*Findings:* The SCADTC is operating at full capacity (100 clients) and appears to be within the boundaries of their offense-eligible target population (non-violent, felony offenders with substance abuse/addiction diagnosis) as per review of the DCCM. As shown above, programs that have over 125 participants experience very small reductions in recidivism (6% vs. 40% reductions in recidivism), so it is important to keep programs more manageable and properly staffed (Carey et al., 2012).

Participants are primarily Caucasian males, and range in age from 18-50, with 44% of the population comprised of 22-30 year olds (2012 DCCM Byrne report). The majority of participants (80%) were unemployed at the time of entry into the SCADTC, while 11% were employed part-time. The drug(s) of choice for participants are heroin (44%) and methamphetamine (33%).

All team members report that their eligibility requirements are written in policy, and they have a copy available for their review. Outside of the legal eligibility requirements, however, the team is divided on their understanding of their specific *target* population. Half of the team reports that there is no specific target group, while the other half of the team maintains that they target high risk/high needs with diagnosed chemical dependency needs.

According to the staff survey, the team reported (also verified by DCCM) that it takes over 60 days for a potential case to be referred to drug court. Historically, this process has taken up to six months. Recent policy changes have been enacted to decrease this wait time, including the creation of a “super form” that is now in use by the Everett Police Department (EPD). When arresting an individual, EPD will mark/flag this form so that the accused can be legally screened expeditiously by the prosecutor for referral to the drug court.

Team members also varied on their responses to the question: “What is your estimate of the typical length of time between referral and program entry?” As is highlighted in Figure 2 below, team member perception of how long it takes for the clinical and intake process to be completed varies between 15 – 60+ days.

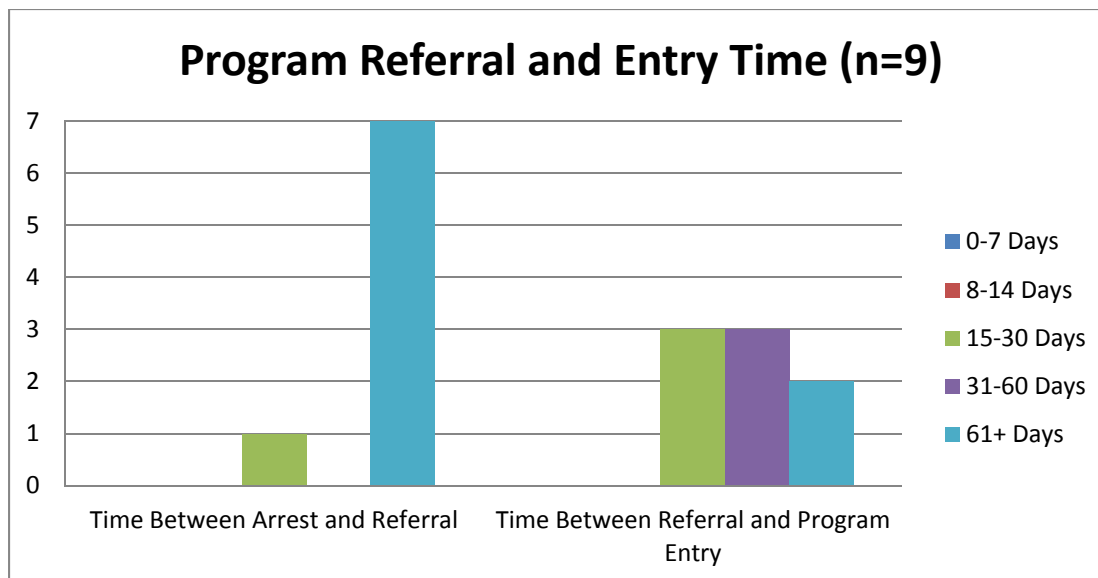


Figure 2. Length of clinical and intake processes.

*Strengths:* The SCADTC has their eligibility criteria clearly stated, and this policy is strongly enacted and maintained by the Prosecutor's office. In addition, the Prosecutor's office screens and allows a diverse group of charges to be considered for acceptance into the drug court (e.g. drug possession, trafficking (select cases), forgery, etc.). The team (under guidance from Program Manager Janelle Sgrignoli) has created a new policy to decrease the referral time between arrest and referral to the drug court.

The program operates as a pre-plea program (the original intent of the drug court model) and within a client capacity range that is correlated with stronger outcomes. In addition, they target a high-needs group of offenders that are suffering from serious addictions to opiate- and stimulant-based drugs.

Various team members are engaged in the screening process, including the Prosecutor for legal screen, the Coordinators for an intake screening (via DCCM), and treatment for the Chemical Dependency Assessment.

*Targeted Area of Improvement (TAI):* The SCADTC should identify a standardized risk/needs assessment tool that will allow them further assess level of care (beyond drug/alcohol treatment) and needed supervision levels. This tool should not be used, however, to make decisions about likelihood to succeed in drug court. The team might also consider adoption of the Global Appraisal of Individual Needs Short Screen (GAIN-SS). The GAIN-SS is a quick screening tool that measures behavioral health disorders, including internalizing/externalizing psychiatric disorders, substance use disorders and criminal thinking.

The team should continue to explore ways to reduce the length of time between arrest, referral and entry into the drug court. By utilizing the drug court systems map outlined above, the team could identify decision

points at which potential barriers exist, and seek to eliminate those barriers, or at least, reduce the amount of time spent at each decision point.

Changes to personnel (at both the team and administrative level), as well as high profile cases, can bring about changes in philosophy regarding targeting and eligibility, as well. It is important that the SCADTC team continually work to reach agreement on the program target and client eligibility, that they remain focused on serving a high risk/high need population, and that open communication exists between all invested parties in order to work through transitions and various crises that inevitably occur within the drug court model.

In addition, the team should ensure that their program is reaching all populations equally that are represented in the court system. The program predominately serves Caucasian males, yet people from communities of color total 26% of the general Snohomish County population.

*One-Year Update:* The SCADTC began using Risk Assessment Needs Tool (RANT), which is essentially a screener built specifically for drug courts in order for staff to ensure that they are properly screening high risk, high need individuals into court. According to available data, the entire population of SCADTC is high risk/high need. In addition to using the RANT, the court also launched the use of the Global Appraisal of Individual Needs (GAIN -I) as the full assessment tool, and four treatment specialists have been certified on the GAIN-I. While the court has been satisfied with utilizing the GAIN-I, they will most likely move to the GAIN core in order to gather more pertinent information.

**Key Component #4: Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.**

Central to any drug court team is the inclusion of treatment providers. This is where the drug court process takes on its unique shape and philosophical foundation. Under the traditional court process, treatment is an outside entity in which clients are often required by the court to seek counseling or treatment, but the treatment process is not central to the case. It is simply, under the traditional system, a requirement that exists amongst many others such as paying fines, jail time, and probation. The drug court model puts treatment at the center of expectations for compliance and the court and process become a treatment court. Critical to this component, however, and often overlooked, is the requirement that a wide range of services available beyond traditional drug/alcohol treatment services, based on level of care and the population that is served.

Research shows that drug courts that contract with two or fewer drug/alcohol treatment agencies experience better outcomes (Carey et al., 2012; Cooper, 2000).



Teams should also be focused on building supports for clients and offering other ancillary services for clients. Drug courts that offer dental and health care experience better outcomes than programs that do not offer such services (Carey et al., 2012). Numerous research studies have found that building the drug court as a “wraparound” model, whereby services beyond drug/alcohol treatment are offered can create stronger outcomes.

*Findings:* Prior to program acceptance, a chemical dependency assessment is administered and a diagnosis of substance abuse or chemically dependent must be found. The evaluation generally includes collecting information about the potential client’s substance use, family and personal history; education, employment and vocational, medical, legal, and psychological history, serious presenting problems, trauma and treatment recommendations.

The Snohomish County ADC utilizes two treatment providers, Evergreen Manor and Catholic Community Services, both of which appear to be fully integrated members of the team. The treatment information shared during staffing centers around basic compliance, with little discussion about the type of treatment modality for the client, or the cognitive-behavioral work that is being completed by the client. However, the providers submit detailed treatment notes in DCCM by 2:30 PM the day before staffing/court via the intranet. This log contains information on the client ranging from treatment progress, conditions in the home, peers, challenges, etc., and is available for review by all team members.

Team discussions during staffing centered on the use of traditional substance abuse treatment, and mental health services when warranted. No other identified services were discussed during staffing. When surveyed, staff reported a menu of services that were offered, but not necessarily required for participation.

*Strengths:* The SCADTC has two strong and committed providers serving on their team. There appears to be a strong flow of information, which has likely been strengthened by the use of the DCCM. Most clients participate in intensive outpatient treatment (IOP), which meets approximately six hours per week, as well as individual sessions. The typical IOP session lasts 12 weeks, however, this can be adjusted depending on the level of care needed. Numerous cognitive-behavioral techniques and curriculums are utilized by the providers, including Living in Balance.

Moral Reconciliation Therapy (MRT) has been available to drug court clients for many years by an external provider. Starting in 2011, MRT classes are now provided by the two drug court program coordinators. All clients are required to participate in and complete the course. This cognitive-behavioral modality addresses criminal thinking, beliefs and reasoning. Focus group participants found the program to be useful, and especially appreciated the use of the workbook in helping to guide them through the course.

The SCADTC utilizes self-help groups and support throughout the program as well. Clients may complete treatment and still remain in the program for the required phase completion.<sup>5</sup>

*Targeted Area of Improvement (TAI):* The SCADTC is encouraged to engage in a community mapping exercise, whereby they identify all types of potential supports for clients outside of traditional drug/alcohol and mental health treatment. When surveyed, the majority of team members acknowledge that many services are available for clients, but simply are not a core requirement of the program (e.g. health care, dental care, housing, parenting courses, employment assistance, etc.).

The team is encouraged to continue to require that drug/alcohol treatment programs utilize evidence/curriculum-based modalities, and demonstrate quality assurance to selected models. Given that Snohomish County targets a high risk/high needs population, it is not uncommon that multiple, and developmentally targeted episodes of treatment are necessary.

It was also noted by focus group participants that access to (and greater understanding of) more supports was needed. These should include, at a minimum, the faith community, medical and dental services, parenting supports, arts and recreation programs, employment and housing assistance, education, library/literacy programs, exercise programs, etc. The SCADTC is encouraged to create and schedule a regular meeting with all community resources/supports in order to allow for continual buy-in, information exchange and identification of barriers or lack of needed services. An example of a mapping exercise can be found at:

[http://www.courtinnovation.org/sites/default/files/Mapping\\_Community\\_Resources%5B1%5D.pdf](http://www.courtinnovation.org/sites/default/files/Mapping_Community_Resources%5B1%5D.pdf)

*One-Year Update:* Under the Reclaiming Futures initiative (part of the juvenile drug court), drug court administrative staff recently completed a community mapping exercise that was general enough to be applied to the adult and family drug court programs as well. This mapping exercise identified drug/alcohol treatment providers, mental health services/providers, varied educational programs, employment supports, food, housing, financial services, health services and recreational opportunities for juvenile and adult drug court participants.

#### **Key Component #5: Abstinence is monitored by frequent alcohol and other drug testing.**

Alcohol and drug testing is central to the monitoring and accountability of the drug court client. Frequency of drug testing varies across drug courts, with most programs executing several tests a week during the first few phases of the program, and gradually declining as the participant moves through the program phases.

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<sup>5</sup> It is not uncommon for drug courts to require that treatment run concurrent to the phase structure of the program. This essentially creates an over-exposure or over-dosage of treatment for drug court clients. Treatment completion does not have to mirror to drug court phase completion.

The key to drug testing in the program is the creation of a true randomization procedure, fully educating clients about the testing procedure (when to show, what/how much to eat and drink beforehand), and consistently monitoring for cheating the UA system.

*Findings:* The SCADTC requires all participants to submit to random and observed urinalysis testing. All drug court participants are provided a phone number, and assigned a “color”, and they must call the line daily to see if their color was called.

According to focus group participants, although all drug court clients are monitored via urine analysis testing, there was severe doubt expressed about the “randomization” of the process.

*Strengths:* The SCADTC appears to follow best practice in requiring that all participants have at least 90 days clean and sober before drug court graduation. In fact, the SCADTC requires six months of sobriety before graduation. They also inform the clients, via their handbook and repeatedly in coordinator, treatment and court sessions, about the UA testing protocol.

UA results are listed on the status hearing docket review sheets that the team reviews in staffing, so that the team has a full understanding about the history of the tests completed, what drugs they were tested for, and whether they were positive/negative.

*Targeted Area of Improvement (TAI):* None noted.

**Key Component #6: A coordinated strategy governs drug court responses to participants’ compliance.**

*Findings:* The proper use of incentives and sanctions to motivate for behavior change is one of *the most critical components* of the drug court model. Research, however, has repeatedly shown that the use of incentives and sanctions is the least understood and properly implemented/operated component in the model.

Drug courts should have written response guidelines for the use of incentives and sanctions, including sample responses to common behavioral issues. The use of incentives and sanctions should be tied to the behavior that the court is addressing. Teams should understand that there are proximal and distal goals that clients are working towards in the program (Marlowe, 2012). Proximal are those goals that clients engage in daily – for example, treatment or AA/NA attendance. They need to complete these proximal goals in order to meet their long-term objective of sobriety and graduation. The court and team, in addition, create distal goals for clients. These are goals that are for behaviors that are ultimately desired (e.g. housing, GED, employment), but take time for clients to complete. These distal goals are more likely completed after a strong period of sobriety and treatment (Marlowe, 2012). Teams often get confused on the proper use of incentives and

sanctions as a behavior modification tool that is tied to the proximal or distal goal. For example, if a client has failed to register for GED classes, an appropriate response would be a ride by law enforcement to the GED testing center. Another appropriate response would be daily check-in with the drug court coordinator until proof of registration could be provided. An inappropriate response would be home arrest or jail, as this punishment is not tied to the behavior (which is actually a distal goal of the program, as compared to a proximal goal).

*Findings:* The following policy (10.60) currently guides the SCADTC in their incentive/sanction process:

“The Drug Court team will continually monitor program participants in their perspective roles and be fully prepared to report both positive and negative behavior in weekly staffing. Achievements and positive behaviors will be acknowledged either verbally or with a program incentive. Negative behavior or program violations shall receive corrective action. All team members shall report behaviors in a timely manner as all consequences either negative or positive are more effective if given closely to the corresponding event.”

The use and application of incentives and sanctions are made during the staffing, and generally there is a fair amount of discussion regarding the use of these methods. Incentives are given in a standardized way. The team has a blend of community donations and court based purchases to utilize for incentives.

Survey test results show that all team members acknowledge that participants are not given a written list of possible rewards, and approximately half of the team believes that participants are not aware of what specific behaviors can lead to receiving a reward (see Figure 3 below). The majority of the team reported that participants know which behaviors led to sanctions, however. This information is listed, in a general form, in the participant handbook. Sixty-seven percent of the team reporting responded to participant behaviors on a case-by-case basis, and report that only sometimes does the team employ a standardized response to behaviors.

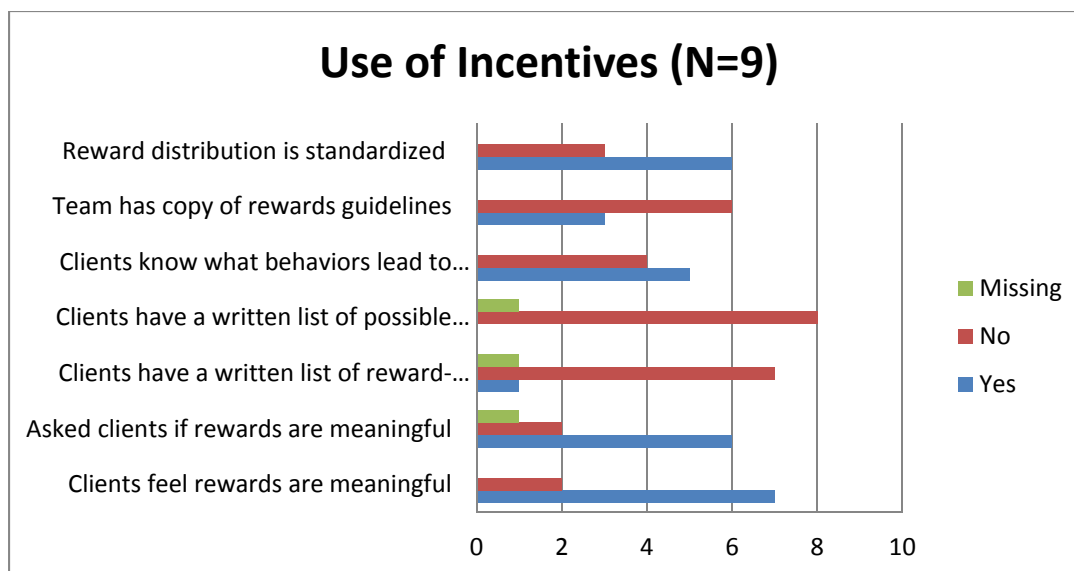


Figure 3. SCADTC use of incentives.

All team members reported the use of “graduated” sanctions that increased with severity and frequency over time (see Figure 4). It was noted during staffing, and through review of the DCCM that the team utilizes a greater frequency of sanctions than incentives. Findings from 2012 (DCCM) indicate the following:

- 915 sanctions were given to participants.
- Sanctions included standard responses such as work crew, community service work and jail. Jail appears to be a commonly used sanction.
- There were 207 separate admissions to jail for sanctions.<sup>6</sup>
- The range of time ordered to jail was 1 to 60 days.
- Average time ordered for jail was 6.1 days.<sup>7</sup>
- Clients serve an average of 2/3 of ordered jail time, reducing the 6.1 days averaged to 4 days.
- Less frequently used were writing assignments, verbal warnings, and in one particular case, an increase in the number of self-help groups was ordered.

In contrast to the sanctions, the team provided 376 incentives to participants in 2012. Three standard incentives were used, and included gift certificates (most common), travel and decreases in court appearances. It was observed during the on-site observations, however, that a non-tangible reward, such as applause and verbal praise (by the judge and various team members) occurs at a very frequent rate. There were also phase certificates and moving clients to bi-weekly appearances used as incentives for clients.

<sup>6</sup> Some participants served multiple stays in jail on separate sanctions

<sup>7</sup> A total of 1,268 days were served in 2012 by 74 different SCADTC participants

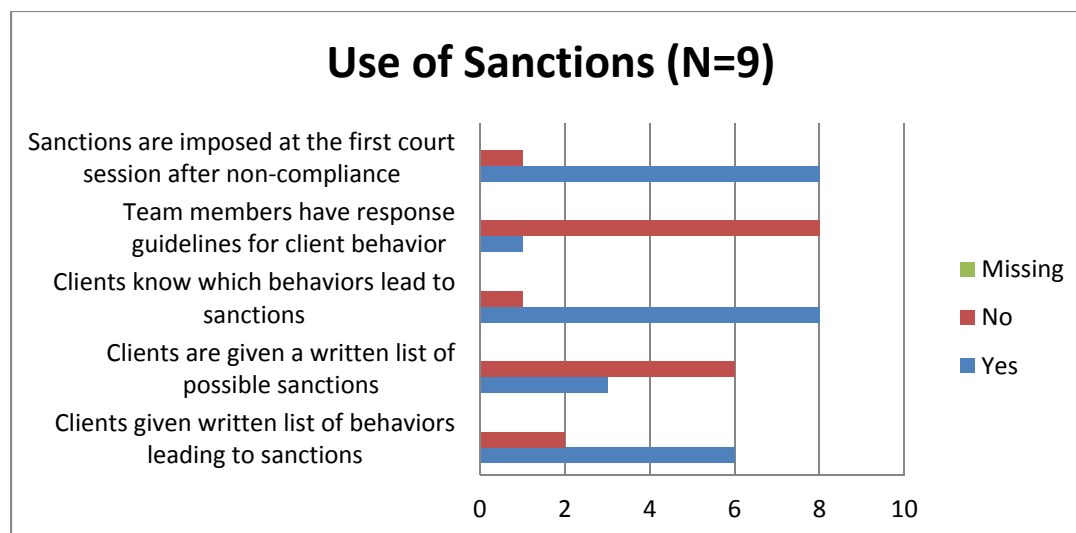


Figure 4. SCADTC use of sanctions.

In regards to incentives and sanctions, adult drug court focus group participants indicated that although they did not thoroughly read the handbook, they knew what was going on with the use incentives and sanctions. Incentives included mainly gift cards to grocery stores, gas stations, or activities (i.e. Safeway, bowling, the movies). Sanctions involved jail, community service or work crew, with a heavy reliance on community service. Adult focus group participants felt that the team should re-evaluate what types of sanctions are used, especially after substantial periods of compliance. They maintained that the use of graduated sanctions was inappropriate for someone who had been compliant for a long time, yet for instance, missed a drug test. Adult participants also felt that there was no individualization of incentives or sanctions and believed this is something the team should address. Focus group participants also stated that their behavior was influenced more by efforts to avoid a sanction than to receive an incentive. This indicates that clients are still externally motivated, rather than internally motivated (fear vs. personal reward/satisfaction) for program success.

*Strengths:* The team has the ability to respond quickly to non-compliant behaviors and because of the strong communication across the team and supporting agencies, appear to be able to collect strong and reliable information about non-compliance.

The SCADTC has the support of community organizations and funds available in order to offer tangible incentives for clients.

*Targeted Area of Improvement (TAI):* As was stated above, the proper use of incentives and sanctions in the drug court model is probably one of the most critical components, yet least understood and improperly operationalized in the drug court. This is a common issue in drug courts across the country.

The SCADTC needs to develop written response guidelines for both their sanction and incentive process. It is important that some level and type of guidelines are available, but that individualization can also occur. Marlowe (2012) advises that courts should be using equivalent amounts of incentives and sanctions. Having written guidelines allows for both the drug court team members and the participants to know what types of behaviors will trigger certain responses, what those responses may be. This alleviates the anxiety that is often felt by drug court clients on those weeks when there has been non-compliant behavior.

As is highlighted in Figure 5 below, the SCADTC needs to focus on developing a wider range of both incentives and sanctions. Review of the DCCM shows that the court uses the same standard sanction responses, with a heavy reliance on jail after just a few other attempted interventions. Although the team maintains they use jail in small amounts when ordered (see Figure 5 below), it is important that jail is used after exhausting many other avenues (unless there is a public safety issue), and then only in short, targeted durations.

The SCADTC team should take advantage of on-line webinars and NADCP conference sessions on the proper use of incentives and sanctions. Such sessions cover the difference between proximal and distal goals, frequency of rewards/punishments, behavior contracts, and creation of guidelines (Marlowe, 2012).

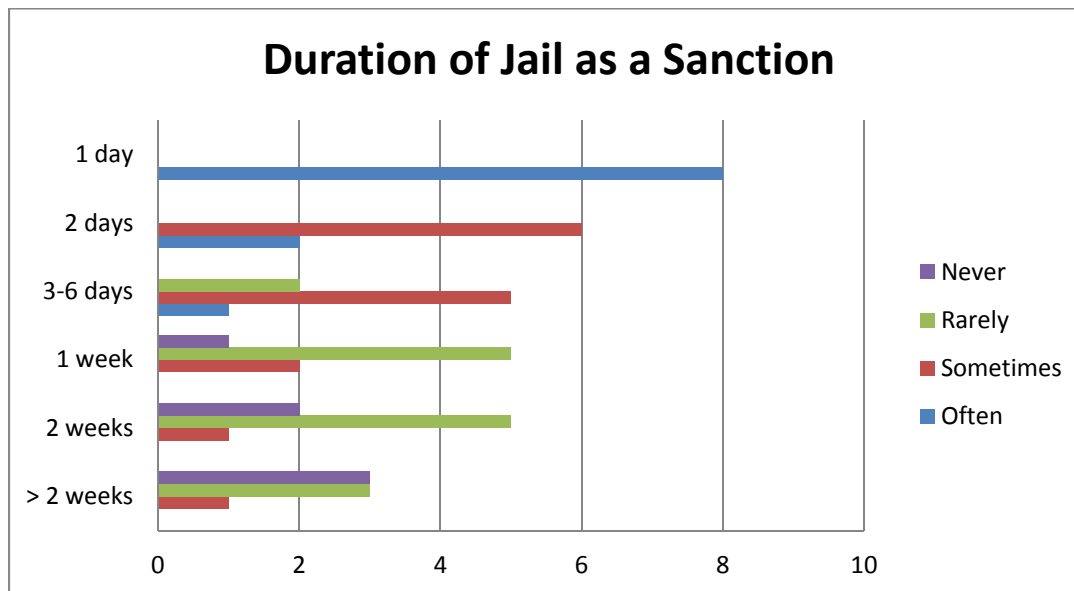


Figure 5. SCADTC use of jail as a sanction.

*One-Year Update:* After the release of the initial process evaluation findings, the SCADTC immediately contacted WSU Researchers to discuss specialized training and support to address perceived deficiencies in their current incentive and sanction process. An extensive training was conducted in October, 2013 to address many of the challenges presented above. Importantly, the team has shifted well philosophically in

how they view the use of incentives and sanctions and understand that the purpose is to motivate for behavior change through carefully discussed and calculated continuums of care. Incentives and sanctions are now printed on poster board and hang in the courtroom for staffing so that the team does not get stuck using the same sanctions and incentives for all clients, but instead can personalize the responses as necessary. All clients get handouts regarding the incentives and sanctions, and the updated information is reflected the handbook as well.

**Key Component #7: Ongoing judicial interaction with each drug court participant is essential.**

The judge is the natural leader of the drug court team, and must often take on many different roles within the courtroom, in staffing and even within the community. These roles often include parental figure, enforcer, support and advocate. A great deal of research has been conducted on the role of the judge within the drug court setting. Findings reveal that drug court participants identify the judge as a key figure for them, and that the amount of time spent before the judge is correlated with success.

Carey et al. (2012) have taken this research a step further and found that judges need to spend a minimum of three minutes engaging with clients, while spending seven minutes or more triples the recidivism reduction (0.17 to 0.53). This same research also found that time served on the drug court bench by judges is correlated with strong outcomes and cost-savings. Judges should serve in the drug court a minimum of two years, and ideally can rotate off the drug court bench for a period of time and then return to serve another term. Courts that have this procedure in place experience better outcomes.

*Findings:* Average time spent in court hearings was 1 minute, 39 seconds (range was 14 seconds to 4 minutes, 45 seconds). The judge appeared invested in each client, even if some sessions were brief (generally due to the fact that the participant was doing so well and they were on a “rocket docket” type procedure). Judge Bowden displayed compassion, encouragement and firmness in dealing with clients, which has been found to strengthen outcomes with clients (Zweig et al., 2012). In addition to the time on the bench, Judge Bowden meets individually with clients in chambers, and on limited occasion within the community (e.g. if a client is hospitalized, or at a public event), which allows for him to develop further insight in the client’s needs, challenges and successes.

The judge has received local, state and national training on the drug court model.

There is a backup judge trained and available if Judge Bowden is not on the bench.

*Strengths:* Judge Bowden is firmly invested in the drug court model, the team and participants. He appears to use the time in the courtroom in an appropriate manner, and manages the docket so that all participants can learn from the experiences of others.



*Targeted Area of Improvement (TAI):* None noted.

*One-Year Update:* Research has continually shown that the role, engagement and techniques of the drug court judge are highly correlated to stronger program outcomes. Since assuming the bench, Judge Wilson has elected to begin each session with a lesson or discussion about a topic of the week. This is a strong technique that has been observed in other successful drug courts, as it is also a topic/lesson that can be reinforced in treatment and during case management sessions.

**Key Component #8: Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.**

Over the past decade, criminal justice agencies have been increasingly required to use data to inform programming and resource allocation decisions. Making “data-driven” decisions in the drug court model is critical given the amount of resources that are invested in these programs. By collecting data, programs become transparent, which allows for greater accountability outside of the team and process and can be used for process improvement.

Research has shown that drug courts that use electronic data base systems, use program statistics on-going for modification purposes, and use outside evaluators experience stronger outcomes (Carey et al., 2012).

*Findings:* The SCADTC Coordinators and treatment providers are required to enter all relevant drug court data into the DCCM.

The Specialty Courts Program Administrator reviews data on a regular basis via the DCCM. Monthly reports for administration and the judicial bench are created for each drug court. Topics covered in the report include warrants, referred and pending participants, acceptance/rejection statistics for the month, discharges (both voluntary and unsuccessful), graduates, new felony charges, and treatment completion.

Exit questionnaires are collected from all graduating drug court participants.

*Strengths:* The SCADTC should be commended for their data entry procedures and use of the DCCM. The DCCM is an exceptional system that offers many benefits for both case management and program monitoring. Reports can be easily generated and the screens are easy to navigate for the user.

*Targeted Area of Improvement (TAI):* In order to strengthen Key Component #6, the Program Administrator is encouraged to provide a monthly summary of the use of incentives and sanctions by the SCADTC. This will allow for the judge and team to use the available data in “real time” and to continue monitoring for needed changes to their restructured process.

*One-Year Update:* The team is provided monthly data reports on a variety of topics, including the use of incentives and sanctions, use of jail, phase promotion, graduates/terminations and treatment outcomes.

**Key Component #9: Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.**

Research on the use of evidence-based practices in the criminal justice field has consistently shown that in order to operate effective programs as intended, practitioners must receive the necessary resources to make the program work, receive on-going training and technical assistance, and be committed to the quality assurance process (Barnoski, 2004; Latessa & Lowenkamp, 2006). This component is focused on ensuring initial and on-going training of staff in order to continually expose staff to best-practices.

Recent drug court research has shown that initial (implementation) training on the drug court model is critical. In addition, on-going, multi-level training is also necessary in order to ensure compliance to the 10 Key Components (NADCP, 1997). Studies have shown that when drug courts provide team members with formalized training prior to implementation, greater cost-savings are realized for the program (Carey, Mackin & Finigan, 2011).

Not only is training important prior to going “live” in drug court operations, but training for new hires, once the drug court is fully operational, is critical. Team transition and turnover is an operational reality of all drug courts, and an issue that has not been well addressed by many teams (van Wormer, 2010). Training for new hires should be focused on role adoption and program operations, and there should also be a process of renewed team building once new members are on board. New team members should be assigned a drug court mentor, and a verbal and/or written agreement by the new team member(s) should exist. A large amount of studies from the criminal justice field reveal that without proper support, oversight and training, criminal justice practitioners are likely to “filter” the program or their assigned work to best fit their personal beliefs, needs and resources, and return to doing “business as usual,” which often means functioning in a punitive manner (Lipsky, 1980; Latessa & Lowenkamp, 2006; Melde, Esbensen & Tusinski, 2006; Rhine, Mawhoor & Parks, 2006; Crea, Usher & Wildfire, 2009; Murphy & Lutze, 2009).

*Findings:* Team members were asked a set of questions on training of staff and training needs. The key findings show (as shown in Figure 6 below) that:

- 43% of the team states that training on the drug court model occurs before or soon after starting on the team, while 57% believe that it does not occur in a timely manner.
- A little over half of the team has received training, specifically about the target population of the court.
- Majority of the team has received training in their drug court specific role duties.

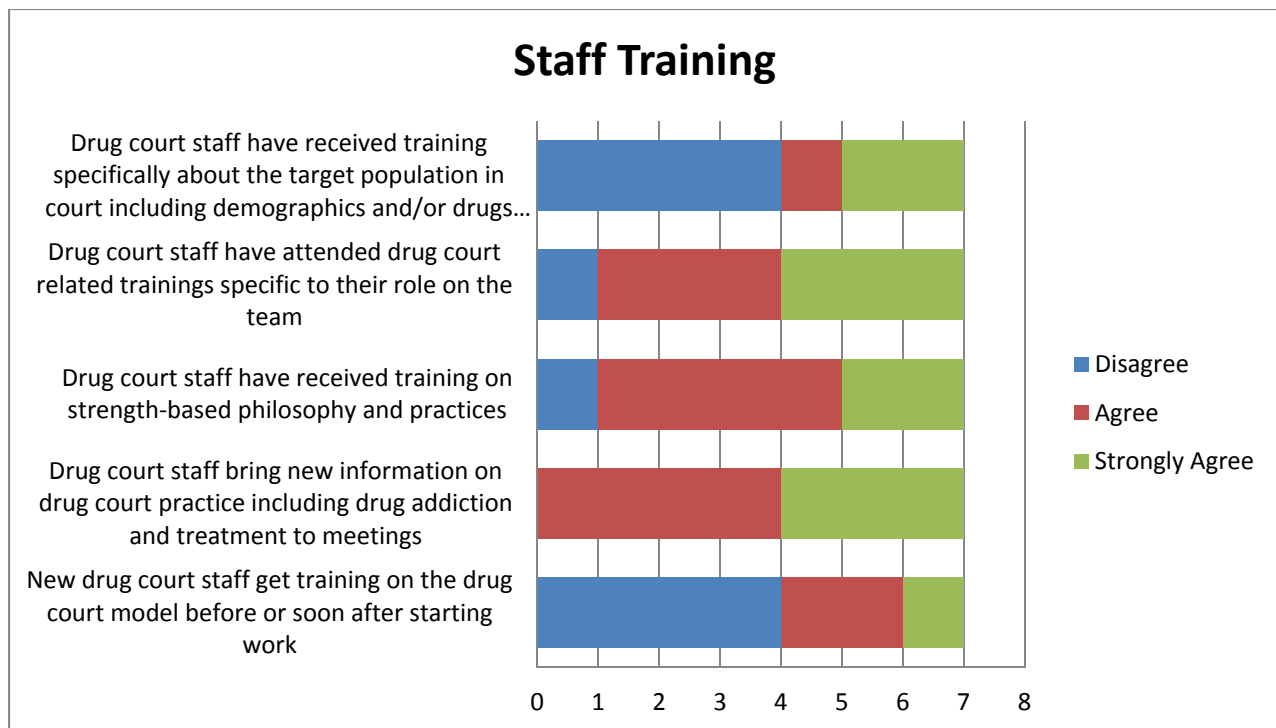


Figure 6. SCADTC team member perceptions of staff training and training needs.

*Strengths:* The majority of team members have received role-specific training. There is also a strong exchange of information across the team about the nature of addiction and treatment services. This was observed in the staffing sessions, whereby treatment providers were quick to share detailed description(s) about treatment methods, needs and terms with the team when necessary.

*Targeted Area of Improvement (TAI):* Turnover and team transitions are common within the drug court model. The SCADTC should enact a policy whereby all new team members are trained on the model within three months of employment. Drug court training is specialized and should focus on understanding the change in role that is required, working as a team member, proper implementation and use of incentives and sanctions and effective treatment modalities. The Washington State Association of Drug Court Professionals (WSADCP), the National Drug Court Institute, the National Association of Drug Court Professionals, and the Center for Court Innovation, all offer exceptional training opportunities, including on-line/webinar sessions.

*One-Year Update:* The team continues to participate in local, state, webinar based and national drug court training opportunities. Drug court administrative staff ensures that all team members receive an internal training upon joining the team, and then work to provide other opportunities for local, state and national training as schedules allow.

**Key Component #10: Forging partnerships among drug courts, public agencies and community-based organizations generates local support and enhances drug court program effectiveness.**

At their core, drug courts are built as collaborations across agencies. These collaborations function best when all agencies support the goals and mission of the drug court program, and partner together in order to create a wide array of services for participants. It is important that the drug team continually assesses what new or changing collaborations are needed in response to their client base. If a partner agency works on a regular basis with a drug court client, they should be included on the drug court team, or at least require weekly update information for the team to consider.

Research has shown that outside of traditional drug/alcohol treatment, and mental health services, drug courts are often challenged to identify other providers or partners that can be matched to client needs. Findings by Wenzel, Longshore, Turner and Ridgely (2001), revealed that staff could not identify more than one treatment provider, lacked understanding about basic treatment conditions, and considered AA/NA therapy (NIJ, 2006). Carey et al. (2012) found that drug courts that have formal partnerships with a variety of community agencies experience better program outcomes.

*Findings:* The SCADTC team reported that they have relationships with community organizations that can provide services for program participants, and that they regularly refer participants to these services. These organizations were not defined, however. When asked if the team had partnerships with agencies that provide employment support, skill building or educational services, the majority of the team maintained that these partnerships did not exist.

*Strengths:* The team *understands* the need to have varied partnerships in order to meet client needs. Operationalizing this component, however, is challenging for the SCADTC (and for most drug courts).

*Targeted Area of Improvement (TAI):* As was noted above, the SCADTC needs to complete a new/updated community mapping exercise in order to identify and then build relationships with a wide array of new partners. It was also noted by focus group participants that access to (and greater understanding of) more supports was needed. These should include, at a minimum, the faith community, medical and dental services, parenting supports, arts and recreation programs, employment and housing assistance, education, library/literacy programs, exercise programs, etc. One such exercise can be found at:

[http://www.courtinnovation.org/sites/default/files/Mapping\\_Community\\_Resources%5B1%5D.pdf](http://www.courtinnovation.org/sites/default/files/Mapping_Community_Resources%5B1%5D.pdf)

*One-Year Update:* See above.

## Section E: SCADTC Outcome Evaluation

### Design and Findings

Outcome evaluations are a common method used in the criminal justice sciences to determine if an intervention or program improves the short and long-term outcomes for clients/participants over the traditional system. For this project, the outcome evaluation provides evidence to determine whether the adult drug court is effective in achieving its goals when compared to traditional systems/interventions. The core focus of this outcome evaluation is determining if drug court participants remain crime free and complete treatment at greater rates than individuals who participate in the traditional system.

*Selection Process:* Per the contract requirements, the WSU research team constructed a retrospective purposive sample of all subjects who participated in the Snohomish County Adult Drug Court in 2009 and 2010 (representing the experimental group) and a similar sample of subjects participating in traditional court proceedings within the county and sample frame years (representing the comparison group). In order to match to the targeting and eligibility criteria of the SCADTC, we ensured that all study subjects (for both the treatment and comparison groups) were charged with a felony drug offense and not been previously convicted of a sexual or violent offense, and had similar alcohol/drug treatment and service provision needs. The date of the felony charge associated with a client's participation into the SCADTC drug court was used as the *index event*, and by using this approach we were able to identify a comparable *index event* for potential comparison groups of individuals. In selecting the comparison group we also ensured that those selected did not have a history of drug court involvement. Prior drug court studies have shown that utilizing samples of individuals that began the program and then opted-out, were terminated from the program, or were offered the program and declined to participate are considered inappropriate comparison group subjects. Within each of these populations exist issues of motivation, legal differences, and dosage effects that can systematically bias study group comparisons. We worked to ensure that these individuals were also excluded from the comparison pool.

*Adult Drug Court Outcome Design:* The Snohomish County DCCM, internal excel files, SCOMIS, TARGET, and the DSHS Integrated Client Database were used to collect archival record data for analysis purposes. Once the information was collected from the various sources, it was audited and coded. The following record data was collected for each participant in the adult drug court and comparison group member:

- Demographic Characteristics: Age, gender, race/ethnicity.
- Treatment Episodes: Outpatient and inpatient referrals, entry and completion.
- Criminal History: Pre-program convictions for both treatment and comparison group, and post program/index date arrests for both treatment and comparison group.

- Drug Court Participation: Screening, jail as sanction, and exit date.
- Long-term outcome data: Criminal history data (24 months post completion).

Data analysis was completed on both the treatment and control group 24 months following their completion of the drug court (experimental group) or their court referral to and completion of drug treatment and court imposed requirements (comparison group) for an underlying felony (index event). Recidivism and key treatment measures were examined, comparing each group over the 24-month follow-up period.

The original proposal sought to address a greater level of research questions, including gaining an understanding about access and use of mental health systems, gains in employment and housing needs. However, the final dataset was constrained due to a lack of available data for both the treatment and comparison groups, as well as the restrictive timeline of the project. Short and long-term outcomes were included in this analysis, to include addressing the following research questions:

- Does the program enhance participants' access to treatment and other forms of services?
  - Time to entry to treatment,
  - Number of days (hours) in treatment,
  - Successful completion of treatment (yes/no), and
  - Types of treatment services offered.
- Does the SCADTC model reduce recidivism compared to the traditional court process?
- Do SCADTC participants remain in the community longer before re-offense as compared to traditional court participants?

*Propensity Score Matching (PSM):* Based on standard research from the adult drug court field, a quasi-experimental design was used for the outcome evaluation. It is advisable that when the “gold standard” (a randomized controlled design) cannot be employed, that any and all possible efforts should be made to eliminate selection bias.<sup>8</sup> As described above, the study eligibility criteria sought to eliminate a fair amount of selection bias present between the experimental and comparison group. To further remove bias between the two groups, Propensity Score Modeling (PSM) was utilized to balance the two study groups on all available measures that possess the potential to systematically bias study findings. PSM is a statistical method that allows one to simulate randomization by balancing the two study groups on pre-intervention characteristics.

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<sup>8</sup> Gau, Shenyang and Mark Fraser. 2010. Propensity Score Analysis: Statistical Methods and Applications. Sage. Thousand Oaks, CA.

*PSM Results:* A propensity score modeling routine was completed for the Snohomish Drug Court evaluation dataset provided. A total of 1,215 cases were eligible for study inclusion, of which 124 were Snohomish Drug Court (SCADTC) participants. A propensity score is a summary measure that identifies a subject's collective variance across all theoretically relevant and available measures. The measures included in the calculation of the propensity score are those that identify to predict group assignment and, if not adjusted for, would lead to selection bias within the comparison group. A 1-to-1 matching procedure was utilized with a selection caliper, where a matched subject is selected for each SCADTC participant based on the closest propensity score identified among the pool of potential comparison participants<sup>9</sup>. A total of 28 pre-release measures were utilized to create the propensity score models. The selected cases from each model were then combined for the diagnostic examination described below.

Prior to the matching procedure, SCADTC participants were compared to the entire pool of potential comparisons subjects on each pre-release measure. Findings revealed that 11 of the 28 measures (39%) differed significantly between the two pre-matched study groups, confirming potential confounding effects of selection bias and the need for propensity score modeling. Following the matching procedure, the groups were compared again on each of the measures. Findings are presented in Table 1 and revealed that zero of the 28 measures remained significant following the match. These findings indicate a substantial reduction in selection bias and a good match.

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<sup>9</sup> The caliper size utilized was 0.05 of a standard deviation.

Table 2. Propensity Score Matching Descriptives (N=1,215)

Measure	Pre-Matching		Post-Matching	
	Comparison (n=1091)	SCADTC (n=124)	Comparison (n=124)	SCADTC (n=124)
	%/M (SE)	%/M (SE)	%/M (SE)	%/M (SE)
Female	33.2	33.1	33.9	33.1
Age at File Date	30.4(0.3)	28.0(0.8)**	27.9(8.0)	28.0(8.9)
Race (Minority)	25.6	20.2	16.9	20.2
CJTA Tx Pre	4.2	2.4	2.4	2.4
IP Pre	12.9	11.3	9.7	11.3
OP Pre	21.5	12.9*	13.7	12.9
Opiate Sub Pre	2.8	3.2	2.4	3.2
Dx Assess Pre	32.4	23.4	26.6	23.4
Other Dx Tx Pre	2.7	1.6	0.8	1.6
Case Mgnt Pre	13.2	6.5*	8.1	6.5
Detox Pre	12.8	16.9	15.3	16.9
Max Charge Curr	--	--	--	--
<i>Drug</i>	41.3	48.4	41.9	48.4
<i>Property</i>	55.9	50.8	58.1	50.8
<i>Other</i>	2.7	0.8	0.0	0.8
Total # Arrest	9.6(0.3)	7.7(0.8)*	8.1(0.7)	7.7(0.8)
Total # Ad Fel	1.1(0.1)	0.9(0.1)*	0.9(0.1)	0.9(0.1)
Total # Ad Misd	2.9(0.1)	2.3(0.3)*	2.4(0.2)	2.3(0.3)
Total # Ad Dx Fel	0.2(0.0)	0.2(0.1)	0.2(0.1)	0.2(0.1)
Total # Ad Dx Fel Delivery	0.2(0.0)	0.1(0.0)*	0.1(0.0)	0.1(0.0)
Total # Ad Dx Fel Violent	0.1(0.0)	0.0(0.0)*	0.0(0.0)	0.0(0.0)
Total # Ad Convictions Other	2.4(0.1)	2.1(0.2)	2.0(0.2)	2.1(0.2)
Total # Juv Fel	0.3(0.0)	0.2(0.1)	0.2(0.1)	0.2(0.1)
Total # Juv Misd	0.7(0.0)	0.6(0.1)	0.5(0.1)	0.6(0.1)
Total # Juv Fel Drug	0.0(0.0)	0.0(0.0)	0.1(0.0)	0.0(0.0)
Juv Drug Del	1.6	3.2	2.4	3.2
Total # Juv Fel Violent	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.0(0.0)
Total # Juv Fel Other	0.1(0.0)	0.0(0.0)*	0.0(0.0)	0.0(0.0)
Max Law Category Pre	--	--†	--	--
<i>Drug</i>	16.0	19.4	17.7	19.4
<i>Violent</i>	7.4	3.2	3.2	3.2
<i>Property</i>	34.3	25.8	28.2	25.8
<i>Sex</i>	0.4	0.0	0.0	0.0
<i>Weapon</i>	4.0	2.4	4.0	2.4
<i>Other</i>	0.7	0.8	0.0	0.8
<i>Misd</i>	37.1	48.4	46.8	48.4
Total # (any) Conv	5.3(0.1)	4.3(0.4)*	1.3(0.3)	0.3(0.4)



## Results

Basic demographic information displayed in the previous PSM table shows that the majority of SCADTC participants (67%) and comparison group members (66%) are male. This mirrors national trends across other ADC studies. Approximately 20% of SCADTC participants and 17% of comparison group's members are a minority (African-American, Asian/Pacific Islander, and American Indian). The age of SCADTC participants is also similar to outcomes found in numerous other studies. The majority of both participants (78.1%) and comparison (80.5%) members are under the age of thirty-four, while the average age at filing is 28 years for both groups. Both the SCADTC and comparison group had a substantial number of arrests in the 10 years prior to program entry/index date identification. In contrast, both groups had limited exposure or entrance into either inpatient or outpatient treatment in the two years prior to entry into the study.

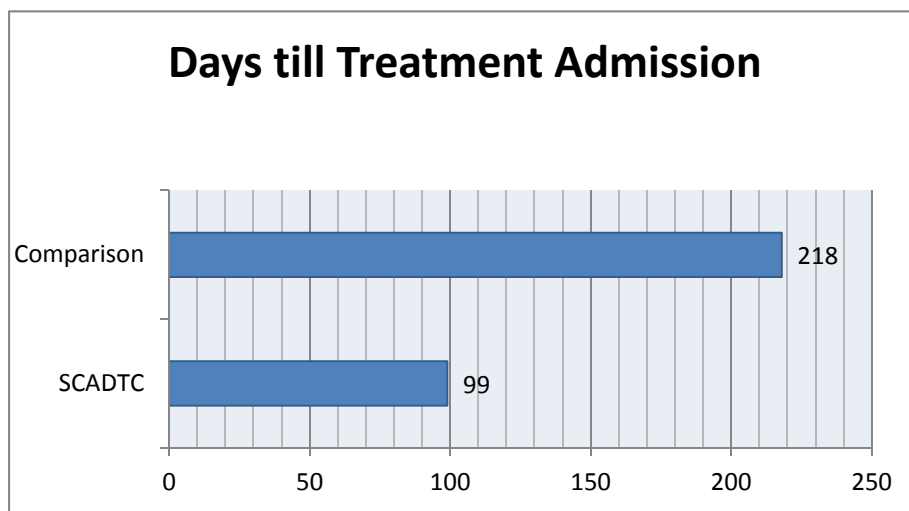
*Program and Treatment Outcomes:* To examine SCADTC effectiveness and answer the research questions outlined above, outcomes were compared with matched subjects. After a careful review of the dataset, it was determined that SCADTC participants that “opted-out” of drug court would not be included for further analyses, as these individuals are considered in an observation period (that runs between one and 14 days) and were not enrolled in treatment. Chi-square and t-tests for significance were computed. In addition, due to a relatively small sample (N= 238), effect sizes were computed to supplement significance tests. While determining if a finding is significant or not (e.g. recidivism reduction between SCADTC and comparison group members) is of central importance, providing effect sizes allows for an understanding of the magnitude of the difference between the two groups. For categorical measures odds ratios (ORs) were provided and for continuous outcomes we present correlation coefficients (r).

<i>Table 3. Outcome Event Comparisons by Study Group (N=238)</i>			
<b>Outcome</b>	<b>Comparison – %/M(SE)</b>	<b>SCADTC – %/M(SE)</b>	<b>OR/r</b>
Arrested	90.3	94.7	1.9
Prison	17.7	14.0	0.7
Jail	61.3	95.6***	13.7
Prison Days	51.8(11.9)	28.2(7.7)†	0.2
Confined Days	77.6(12.2)	72.9(10.4)	<0.1
Non-Sanctioned Confined Days	77.6(12.2)	61.5(9.9)	0.1
Received IP	50.0	55.3	1.2
Received OP	89.5	100.0***	13.2
IP Days	16.5(3.4)	17.3(3.7)	<0.1
OP Days	39.4(4.8)	113.2(5.4)***	0.6
Total AOD Days	73.5(6.9)	139.1(7.4)***	0.3
IP Costs	\$873(137.4)	\$1,230.3(200.6)	0.1
OP Costs	\$1,250(177.3)	\$2,484.3(137.5)***	0.3
AOD Costs	\$2,223(231.0)	\$3,833(263.9)***	0.3

† p<.1 \* p<.05 \*\* p<.01 \*\*\* p<.001

**1) Does participation in the SCADTC increase access and entrance into drug/alcohol treatment?**

Research continually highlights the need to provide timely access to drug and alcohol treatment assessment and programming, especially with a high risk/high need population. As can be seen in Figure 7, SCADTC subjects possessed significantly fewer days waiting to access treatment, ( $p<.001$ ) and reduced their time to treatment entry by 60% (119 days) in contrast to the comparison group ( $HR=0.4$ ). This finding indicates that participation in the SCADTC minimizes wait time into treatment given that designated case managers (drug court coordinators) are available to assist with treatment placement.



*Figure 7.* SCADTC participant days waiting to access treatment.

**2) Does the program enhance participants' completion of drug/alcohol treatment?**

Not only do SCADTC clients access treatment at faster rates, all SCADTC subjects (100%) received outpatient (OP) treatment, while 89.5% of comparison group members received outpatient treatment. As Figure 8 highlights, SCADTC clients spent 74 more days in outpatient treatment than comparison group members. This finding was statistically significant.

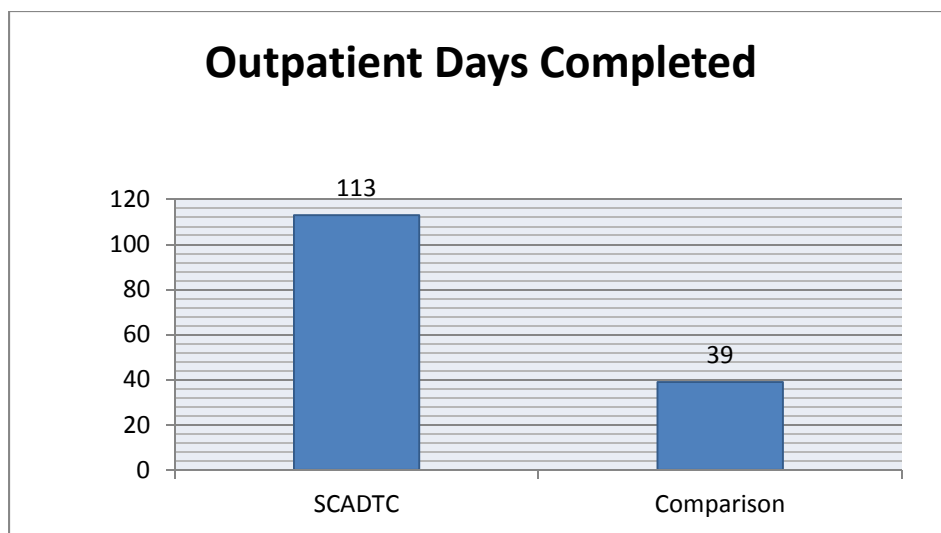


Figure 8. SCADTC participant outpatient days completed.

When evaluating all days spent in treatment (inpatient, outpatient and other) the SCADTC again displayed a statistically significant difference ( $p < .001$ ). Figure 9 displays the total amount of treatment days completed by the SCADTC (139 days) as contrasted against the comparison group (73.5 days). With research continually pointing to the need for the proper amount of treatment “dosage” for high risk/high need offenders it is encouraging to find that SCADTC participants spent an average of 66 more days in some form of treatment<sup>10</sup>.

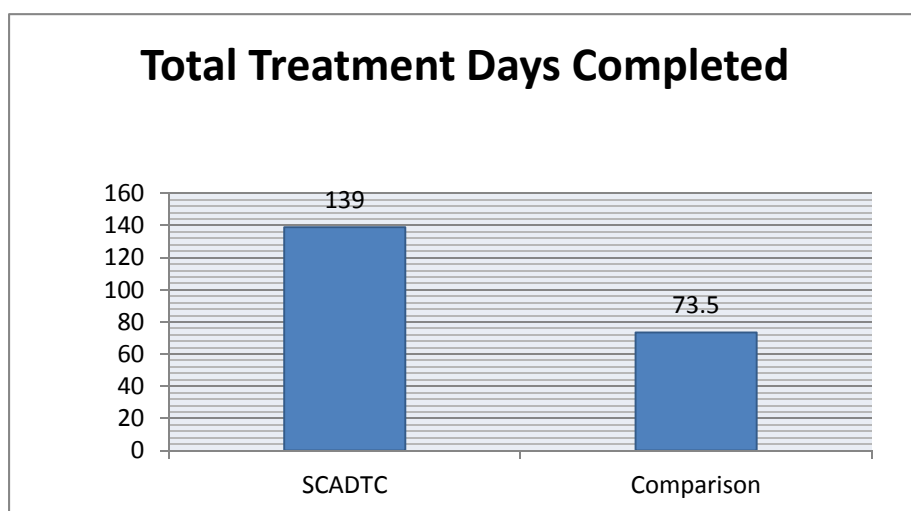


Figure 9. SCADTC total days of treatment completed.

Because of these findings, SCADTC subjects, on average, possessed significantly greater outpatient and total treatment costs. It should be noted that these elevated costs are expected, given the greater rates of treatment

<sup>10</sup> Treatment is defined as outpatient, inpatient, intake, case management, and other services

received by the SCADTC group. Cost-benefit is discussed in Section F and will examine treatment costs in a more comprehensive and accurate manner, considering recidivism and other social costs. Finally, with the exception of IP received and days, all estimates indicate moderate-to-strong effect sizes confirming the SCADTC's ability to provide an improved linkage to and engagement in treatment, where 100 percent of participants are found to participate in some form of treatment.

### **3) Does the SCADTC model reduce recidivism compared to the traditional court process?**

*Arrests:* The SCADTC group was found to have a greater proportion of arrests than the comparison group (95% vs. 90%); however, this finding was not statistically significant. As can be seen in Table 4, both the SDACTC and the comparison group possessed a high average of arrests pre-program/index, as well.

*Jail:* SCADTC subjects were found to have a greater proportion of participants receiving jail time, and this was found to be significant. Ninety-five percent of SCADTC served jail time during the study period, while 61% of the comparison group served jail time. This difference between the groups is highly likely due to the use of jail as a drug court sanction for non-compliance. As was identified in the process evaluation, the SCADTC utilized jail on a consistent basis as a sanction for program violations. Since the release of the process evaluation in April 2013, this practice has been readdressed and team members have developed other sanctions that can be utilized before placing a SCADTC participant in jail.

*Prison:* Two separate prison variables were used in order to understand both the percentage of those that were given a prison sentence and subsequent incarceration, as well as prison days served. When examining the receipt of a prison incarceration, a smaller proportion of SCADTC participants received a prison incarceration during the study period when contrasted to the comparison group. Seventeen percent of comparison group members, as compared to 14% of SCADTC were sent to prison 24 months post program. This variable, however, did not reach statistical significance. When examining Prison Days Served, a marginally significant reduction was identified for the SCADTC group. In addition, the effect size estimate is small-to-moderate for the sample, which indicates that with a larger sample would likely identify significant differences.

*Combined Jail and Prison Days:* The combined measure of days spent in jail or prison ("Confined Days"), revealed near equivalent mean total of days spent between the two groups (73 days for SCADTC and 77 days for the comparison). Based on process evaluation findings, it can be argued that the increased number of jail days observed for the SCADTC group was likely due to the use/overuse of jail as a drug court sanction for non-compliance. To examine this issue further, a measure of "Non-Sanctioned Confined Days" was created by subtracting sanction days from the participants' jail days served. Findings revealed a difference between the two group of 77.6 days for comparison group members, and 61.5 days for SCADTC participants, although

once again, this finding did not reach significance. It is important to note, however, that given the comparative reduced costs of jail versus prison confinement, the non-significant finding for “Non-Sanctioned Confined Days” is a positive SCADTC finding as the potential reduction in the use of jail sanctioning may be a source of reductions in program costs.

#### **4) Do SCADTC participants remain in the community longer before re-offense as compared to traditional court participants?**

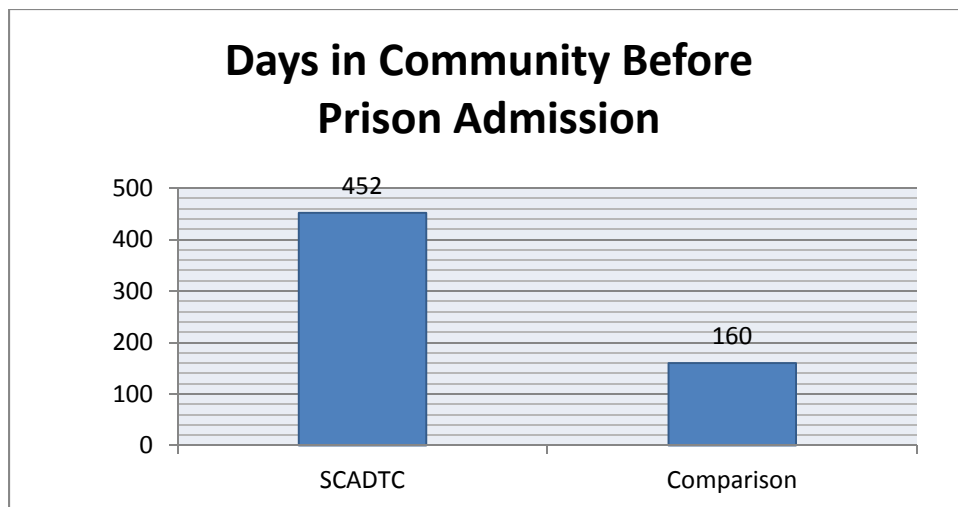
A primary outcome of concern was the time-to-recidivism for both groups. To examine these effects, Cox regression models were computed. To adjust for right skew of the survival times, median time-to-event statistics are reported and significance tests and hazard ratios were computed to examine the magnitude of effects. All subjects not committing a given event are right censored at the final day of the 24-month follow-up. Findings of survival analyses for arrest, prison and jail are presented in Table 4.

<i>Table 4. Days-to- Event Comparisons by Study Group (N=238)</i>				
<b>Outcome</b>	<b>Comparison – Median(SE)</b>	<b>SCADTC Median (SE)</b>	<b>Wald</b>	<b>Hazard Ratio</b>
Days-to-Arrest	45(7.9)	52(7.9)	0.13	0.9
Days-to-Prison	160(72.1)	452(19.3)	3.67*	0.5
Days-to-Jail	508(62.0)	116(14.2)	68.8***	1.3
Days-to-Treatment	218(17.0)	99(6.2)	30.78***	0.4

† p<.1 \* p<.05 \*\* p<.01 \*\*\* p<.001

Examining the median times of two of three events (Arrest and Prison), indicate improved effects for the SCADTC group. For arrests, SCADTC participants experienced a median of 52 days until arrest, while the comparison group experienced 45 days until arrest, although this finding does not reach statistical significance.

When evaluating Days-to-Prison, however, the SCADTC group was found to possess significantly greater days-to-admission (p<.05), and they were half as likely as the comparison group (HR=0.5) to be sent to prison. As is highlighted in Figure 10, for those SCADTC participants that did reoffend, they remained in the community for 452 days before incarceration in prison, while the comparison group only spent 160 days in the community.



*Figure 10.* Days spent in community before prison admission.

When examining Days-to-Jail, SCADTC participants had significantly fewer days-to-admission ( $p < .001$ ) for jail. As was stated above, this was largely due to the use of jail as a frequent sanction in the SCADTC group during the years in which the sample was observed.

## Section F: Cost-Benefit Analysis

This report estimates the relative cost of managing adult felons participating in the SCADTC and compared to adults that are processed through the traditional criminal court.

### **METHODS**

#### *Participants*

With the assistance of the Snohomish County ADTC, we identified 124 adults who were enrolled in the SCADTC in FY 2009 – 2010. After adjusting for opt-outs, there were a total of 114 adults in the SCADTC sample. Individuals eligible for the comparison group were identified by the Research and Data Analysis (RDA) division of the Washington State Department of Social and Health Services (DSHS), through the DSHS Integrated Client Database, as those meeting the eligibility requirements for the ADTC, but who did not enroll.

#### *Data and Measures*

The date of each participant's most serious felony charge combined with the charge that most likely made him or her eligible for drug court was chosen as the index date for the 24-month post-index follow-up period. Estimates of chemical-dependency treatment costs, and days spent in jail or prison were obtained from DSHS-RDA. The average daily cost of incarceration was obtained from a KGM Consulting report for the 2010 fiscal year (KGM, 2012). The average daily jail cost was estimated by first dividing the total jail expenditures for Snohomish County for 2004, by the average daily population for Snohomish County for 2004 (the 2004 figures were the most recent available), then dividing that figure by the number of days in the year (Washington State Auditor, 2013; Washington Association of Sheriffs and Police Chiefs, 2013). The drug court administration and monitoring costs for 2012 were obtained from the Snohomish County Human Services Division of Alcohol and Other Drugs and the Snohomish County Superior Court budget. The total administration and monitoring costs for 2012 were then divided by the total number of drug court admissions for 2012. The superior court expenditures per case were estimated using the same methodology as Barnoski and Aos (2003). Total expenditures for the Snohomish County superior court, county clerk, prosecutor and public defender were obtained from the Washington State Auditor's Local Government Finance Reporting System (LGFRS). The estimated percent of courtroom time allocated to drug court and criminal court were verified with the Snohomish County Specialty Courts Program Administrator.

### *Analysis*

All costs were adjusted for inflation and converted to 2012 dollars using the Consumer Price Index. All analyses were based on intention to treat; therefore, individuals in the treatment group were considered to be drug court participants regardless of whether they completed the program. A third-party taxpayer perspective was adopted, indicating that only direct costs associated with the resources paid for by taxpayers and used to manage the patients in each group were taken into consideration (Gold et al., 1996). A generalized linear model (GLM) and the method of recycled predictions were used to predict the mean total cost values for the drug-court and control groups (Glick et al., 2007). Cost data is often highly skewed, which may bias the standard errors of regression coefficients in traditional linear models, thereby reducing the likelihood of identifying statistically significant results for individual variables, and the model as a whole. However, the GLM allows one to choose both the mean and variance functions. Manning and Mullahy (2001) offer a guide for choosing the most appropriate variance structure via the modified Parks test (Park, 1996). A Gaussian distribution with an identity link function was determined to be most appropriate for this analysis. To account for sampling uncertainty, the 95% confidence intervals were estimated using a nonparametric bootstrap with 10,000 iterations.

## **RESULTS**

The average 2-year cost of managing adults charged with felonies that also demonstrate a need for chemical dependency treatment in Snohomish County was \$5,056 higher for drug court participants than for those managed through regular criminal court.

*Table 5. Cost Summary*

	<b>Drug Court</b>	<b>Criminal Court</b>	<b>Differential</b>	<b>95% CI</b>	
Chemical Dependency Treatment	\$3,722	\$2,342	\$1,380	\$792	\$1,968
Prison	\$3,046	\$5,161	-\$2,115	-\$4,479	\$164
Jail	\$4,424	\$3,060	\$1,364	\$77	\$2,652
Superior Court	\$6,210	\$2,462	\$3,736	NA	NA
Drug Court Administration and Monitoring	\$691	\$0	\$691	NA	NA
<b>Total</b>	<b>\$18,093</b>	<b>\$13,025</b>	<b>\$5,056</b>	<b>\$2,498</b>	<b>\$7,618</b>

The estimated drug-court cost and the effect size associated with the confined days outcome differential were entered into the WSIPP cost-benefit model, in order to estimate some of the indirect costs associated with losses suffered by victims of crime (e.g., pain and suffering, reduced quality of life, and psychological distress), and the opportunity costs associated with individuals engaging in illegal activities (e.g., lost productivity in



legal markets). Analysis of both direct and indirect costs found that the total net present value benefit associated with their broader societal perspective is \$3,541 per participant. This results in an 8% return on investment, or \$1.35 worth of benefits for every \$1 in costs<sup>11</sup>.

## CONCLUSION

Based on the estimates derived for this study, the 2-year post-index mean direct cost associated with managing chemically-dependent adults charged with felonies who were enrolled in the Snohomish County ADTC was \$5,056 (95% CI: \$2,498, \$7,618) higher than the mean cost associated with a statistically-matched drug-court-eligible control group. However, once some of the indirect costs associated with reduced criminal activity are taken into account, the results indicate that the benefit to society is \$1.35 for every \$1 spent on the program.

Our findings are in line with the existing literature indicating that a broader societal perspective accounting for indirect victimization and opportunity costs results in a net benefit to society. Prior research assessing the benefits and costs of Washington State drug courts found that the additional direct cost of managing an individual in drug-court relative to criminal court was \$7,667 [2012 USD]. This present-value figure was calculated using a 3-year follow-up period, and included costs associated with chemical-dependency treatment, incarceration, superior court costs, jail, and drug-court administration and monitoring costs. After incorporating the indirect costs discussed above, the researchers found an overall net-benefit to society of \$23,148 [2012 USD], which amounts to \$4.02 worth of benefits for every \$1 spent. Additionally, a recent Washington State Institute for Public Policy WSIPP meta-analysis of current drug-court reports found a net present-value societal benefit of \$8,739 [2012 USD], a \$2.86 return on each \$1 spent. One important limitation is that we were unable to estimate the cost associated with other sanction-related activities, such as probation.

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<sup>11</sup> *The Washington State Institute for Public Policy (WSIPP) conducted the benefit-cost analysis at the request of the author using inputs provided by the author. The views, opinions, and findings expressed in this report, however, are not necessarily endorsed by WSIPP and may not state or reflect the findings of WSIPP.*

## Section G: Summary and Recommendations

The drug court movement was founded on the ideals of collaboration, accountability and fairness in order to effectively treat a complex criminal justice involved population. Research has found that across the average jail population, 60-80% of inmates suffer from a drug/alcohol addiction and/or a co-occurring disorder (Hunt et al., 2014). Drug courts seek to address this underlying addiction that cripples the criminal justice system. Rather than simple sentencing and handing a defendant off to the correctional system as is common under the traditional system, the drug court remains involved, with a team of criminal justice and treatment professionals tracking, monitoring, and treating the defendant, often referred to as “client,” for an extended period of time. This wave of drug courts has created significant structural changes in how courts and treatment providers manage “specialized” populations. While drug courts started as a grassroots movement in 1988, there are now over 2,907 such programs across the country, and a strong literature and research base now exists to answer the questions of “do drug courts work” and “how do drug court work?” From this research National Best Practice Standards (NDCI, 2012) have been developed for courts to follow and replicate in state statute if possible.

This research was focused on determining not only on “how does the SCADTC work” but also on “does the program reduce recidivism for a high risk/high need population and increase treatment access and completion?” The key findings from this two-year study include the following:

- The team is cohesive and includes all necessary core team members, including the judge, prosecutor, defense attorney, treatment, coordinators and law enforcement.
- The SCADTC utilizes two providers, which is correlated with stronger program outcomes.
- The judge is assigned to the court on a 2/4/2 rotation schedule. The judge serves for two years as a substitute, four years as presiding SCADTC judge, and then another two years as a substitute.
- The program operates with less than 125 participants.
- The SCADTC team is provided with monthly reports to review important operating procedures and correlating outcomes.
- SDADTC participants are more likely to engage/enroll in both inpatient and outpatient treatment, and completed 66 more days of treatment than comparison group members.
- The SCADTC participants spent significantly greater amounts of time in jail, but this is to be expected given the historical heavy reliance on jail as a sanction by the court.
- Removing “jail as sanction days” revealed that SCADTC spent an average of 61.5 days in jail, while the comparison group spent 77.6 days.
- SCADTC participants are half as likely as the comparison group to be sent to prison.

- For those SCADTC participants that did reoffend, they remained in the community for 452 days before incarceration in prison, while the comparison group only spent 160 days in the community.
- Findings from the cost-benefit study find that \$1.35 in savings is generated for every \$1.00 spent. While positive, this finding highlights the need for the SCADTC to continue to work to control costs associated with the use of jail as a sanction.

As can be seen in the results of the evaluation, the SCADTC works carefully to follow their intended policies and procedures and is engaging in a majority of the national best practice standards for drug courts. This is actually a critical finding, as the research used to build the national best practice standards were practices/conditions correlated to reduced recidivism. The outcome evaluation for this study was a retrospective design per contract, and therefore data was analyzed from 2009 and 2010 participants and *practices*. In just those few short years dozens of drug court and treatment studies, and the subsequent national best practice standards have been issued. The SCADTC has continually trained staff on these standards in order to persistently improve operations, and ideally outcomes.

In measuring program outcomes from 2009-2010, the program did not impact subsequent arrests. This finding is not surprising given that the SCADTC continually targets high risk/high need individuals for program inclusion. Many ADC programs are accused of “cherry-picking” those individuals considered to be low risk/low need in order to strengthen their outcomes. In addition, since the release of the original SCADTC process evaluation in April 2013, the team has placed a renewed focus on developing alternatives to jail sanctions. If the court is able to fully embrace such alternatives it will likely improve study findings in years to come.

The program is successful, however, in reducing prison incarcerations, as drug court participants do remain in the community for much longer periods of time before receiving a prison incarceration as contrasted to the comparison group. Furthermore, countless studies have indicated the strong effects of drug courts over treatment as usual. As identified, the use and time until outpatient treatment is greatly reduced through the use of the drug court, and greater amounts of treatment are offered and completed. This is a consistent finding in the literature, which identifies the drug court’s ability to provide accountability in order to ensure treatment compliance.

This study had numerous limitations that are worthy of exploration. Unfortunately due to the needed observations period for follow-ups (24 months) our sample size was limited (N=238). If follow-up studies are conducted it is likely that marginally significant findings will become significant, further extending the court’s success. The reason for this small sample size is that in 2009, Snohomish County was forced to address the economic downturn via budget cuts and was required to reduce the size of the SCADTC. Also

likely impacting the outcomes is that in order to quickly adjust to this smaller caseload, in February 2009 there was a group of participants who were graduated from the program, and although they met most of the program graduation requirements, they did not have to fulfill all traditional requirements in order to graduate.

Given the combined findings of the process, outcome and cost-benefit evaluations we do recommend aspects of the court be retooled and staff receive a training booster to get the court back on track with the effective principles identified by national standards. A rededication to these principles will likely increase this promising program into an evidence-based model, providing efficient service to the people of Snohomish County.

## **Appendix A**

### **Drug Court Practitioner Fact Sheet**

#### **Behavior Modification 101 for Drug Courts: Making the Most of Incentives and Sanctions**

**Dr. Douglas Marlowe**



**NDCI**  
NATIONAL DRUG  
COURT INSTITUTE

# Drug Court Practitioner **Fact Sheet**

September, 2012

## **Behavior Modification 101 for Drug Courts: Making the Most of Incentives and Sanctions**

*By Douglas B. Marlowe, JD, PhD  
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Drug Courts improve outcomes for drug-abusing offenders by combining evidence-based substance abuse treatment with strict behavioral accountability. Participants are carefully monitored for substance use and related behaviors and receive escalating incentives for accomplishments and sanctions for infractions. The nearly unanimous perception of both participants and staff members is that the positive effects of Drug Courts are largely attributable to the application of these behavioral contingencies (Lindquist, Krebs, & Lattimore, 2006; Goldkamp, White, & Robinson, 2002; Farole & Cissner, 2007; Harrell & Roman, 2001).

Scientific research over several decades reveals the most effective ways to administer behavior modification programs. Drug Courts that learn these lessons of science reap benefits several times over through better outcomes and greater cost-effectiveness (Rossman & Zweig, 2012). Those that follow nonscientific beliefs or fall back on old habits are not very effective and waste precious resources. Every Drug Court team should stay abreast of the research on effective behavior modification and periodically review court policies and procedures to ensure they are consistent with science-based practices.

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### **The Carrot and the Stick**

Some criminal justice professionals may resist the notion of rewarding offenders for doing what they are already legally required to do. These professionals may believe that treatment should be its own reward or that avoiding a criminal charge should be incentive enough. Other professionals may feel ambivalent about administering

punishment to their clients. They may view their role as providing treatment and rehabilitation, not policing misconduct.

Such sentiments can lead some Drug Court teams to rely too heavily on either incentives or sanctions rather than providing a proper balance of each. Rewards and sanctions serve different, but complementary, functions. Rewards are used to increase desirable behaviors, such as going to work



or school, whereas sanctions are used to reduce undesired behaviors, such as engaging in crime or drug abuse. When used together, they can have synergistic effects that produce better outcomes than applying either technique alone (Marlowe & Kirby, 1999).

Although some sources recommend that rewards should outnumber sanctions by a 4:1 ratio (Gendreau, 1996; Wodahl et al., 2011), this suggestion is based on after-the-fact clinical observations or correlations rather than on controlled scientific studies. In the absence of definitive guidance, a rule of thumb is to have at least equivalent amounts of positive reinforcement and punishment available for participants. If participants may be punished for missing a counseling session, then they should also be able to earn a reward for attending a counseling session. In this way, participants have a roughly equal opportunity to earn a reward or to incur a sanction. Arranging contingencies in this manner enables Drug Courts to reduce undesirable behaviors while simultaneously replacing them with desirable prosocial behaviors.

### **The Carrot and the Stick**

#### **Practice Pointer**

*Balance positive reinforcement with punishment to reduce undesired behaviors and replace them with desired prosocial behaviors.*

### **Trust but Verify**

The most influential factor in behavior modification is certainty. The more consistently participants receive rewards for accomplishments and sanctions for infractions, the more effective the program will be. Therefore, the success of every Drug Court will depend, ultimately, on the reliable monitoring of participants' behaviors. If the team does not have accurate information about whether

participants are being compliant or noncompliant in the program, there is no possible way to apply incentives or sanctions correctly or to adjust treatment and supervision services accordingly.

Research reveals the most effective and cost-efficient Drug Courts perform urine drug testing no less frequently than twice per week on a truly random basis for at least the first several months of the program (Carey, Finigan, & Pukstas, 2008; Carey, Mackin, & Finigan, 2012; McIntire, Lessenger, & Roper, 2007). This includes conducting drug testing on weekends and holidays when drug and alcohol use are most likely to occur. Outcomes also appear to be better for Drug Courts that use monitoring technologies that extend the time window for detection, such as sweat patches, anklet devices, and EtG or EtS testing (Cary, 2011; Flango & Cheesman, 2009).

Generally speaking, drug testing should be among the last supervisory burdens lifted and ordinarily during the last phase of the program. Because Drug Courts typically ratchet down the intensity of treatment and supervision services as participants make progress in the program, relapse is always a risk as those services are reduced. Therefore, drug testing should continue unabated in order to be certain that relapse is not occurring during other adjustments to the program regimen.

Drug Courts that include law enforcement or community corrections officers on their teams also tend to have better outcomes (Carey et al., 2008, 2012; Harberts, 2007, 2011). Addicted offenders are generally not at risk for using drugs or committing crimes while they are in court, at a probation office, or in a treatment program. The risks they face are in their natural social environments, where they are confronted with drugs, drug-using associates, and the stresses of their daily lives. A Drug Court must extend its influence into the natural settings in which its participants live and function. This may include conducting random home visits, verifying employment and school attendance, enforcing area and person restrictions, monitoring curfew compliance, or performing bar sweeps.

## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### Trust but Verify

#### Practice Pointers

- *Conduct urine or saliva drug testing no less frequently than twice per week for at least the first several months of the program.*
- *Conduct urine or saliva testing on a truly random basis, including on weekends and holidays.*
- *Do not substantially reduce the frequency of drug testing until participants are in the last phases of the program and have begun to engage in their continuing-care plans.*
- *If frequent drug testing is not feasible, employ continuous detection technologies, such as sweat patches or anklet monitoring devices, or use tests that have longer time windows for detection, such as EtG or EtS.*
- *For technologies that have short detection windows, such as breathalyzers (BAIs), randomly administer the tests in the field, for example during unannounced home visits.*
- *Have community supervision officers periodically and randomly observe participants in their natural social environments.*

### Timing is Everything

The unfortunate reality is that the effects of rewards and sanctions begin to decline within only a few hours or days after a participant has engaged in a target behavior. This has important implications for scheduling status hearings in a Drug Court. The longer the time interval between status hearings, the longer the delay is likely to be before sanctions or rewards are imposed.

Drug Courts have substantially better outcomes when participants are required to appear in court no less than every two weeks for at least the first several months of the

program (Carey et al., 2008; Carey, Mackin, & Finigan, 2012; Festinger et al. 2002; Jones, 2011; Marlowe et al., 2006, 2007).<sup>1</sup> This allows the team to respond relatively quickly to achievements and infractions, thereby producing better outcomes in a shorter period of time. If the next status hearing after an infraction is not scheduled for several weeks, noncompliant participants should be brought in sooner for a court hearing to reduce the delay interval before a consequence can be imposed (Carey, Mackin, & Finigan, 2012).

Research has not yet clearly established the ideal point to ratchet down the frequency of status hearings. However, evidence suggests status hearings should be held approximately monthly until participants are in the last phase of the program and have begun to engage in their continuing-care plans (Carey, Finigan, & Pukstas, 2008).

### Timing is Everything

#### Practice Pointers

- *Schedule status hearings no less frequently than twice per month until participants have initiated abstinence and are regularly attending treatment.*
- *Ensure noncompliant participants are brought in for a court hearing within a reasonable period of time after a serious infraction has occurred.*
- *Continue status hearings on an approximately monthly basis until participants have engaged in their continuing-care plans.*

### Staying Centered

A common misconception persists among many professionals that rewards and sanctions are most effective at high magnitudes. In fact, rewards can be effective at low to moderate magnitudes. For example, positive outcomes have been reported using verbal praise, certificates of recognition, transportation passes, and gift cards (Stitzer, 2008).

<sup>1</sup> This assumes the Drug Court is treating the appropriate target population of high-risk and addicted offenders.





Sanctions tend to be least effective at the lowest and highest magnitudes and most effective within the intermediate range. Sanctions that are too weak can precipitate *habituation*, in which the individual becomes accustomed, and thus less responsive, to punishment. Sanctions that are too harsh can lead to resentment, avoidance reactions, and *ceiling effects*, in which the team runs out of sanctions before treatment has had a chance to take effect.

The success of any Drug Court will depend largely on its ability to craft a creative range of intermediate-magnitude incentives and sanctions that can be ratcheted upward or downward in response to participants' behaviors.<sup>2</sup> Drug Courts that are too lenient will be apt to make outcomes stagnant, and those that are too harsh will be apt to elicit negative reactions and ceiling effects. Programs that respond to participants' behaviors in a thoughtful and balanced manner will achieve the best results.

### Staying Centered

#### **Practice Pointers**

- *Develop a wide and creative range of intermediate-magnitude rewards and sanctions that can be ratcheted upward or downward in response to participants' behaviors.*
- *Avoid overreliance on sanctions that are low or high in magnitude.*

### Fishing for Tangible Resources

Many Drug Courts are stretched thin for resources to purchase tangible rewards. One economical and effective way to deal with this issue is to use the *fishbowl procedure*. Participants earn opportunities to draw prizes from a fishbowl (or other lottery container) for their accomplishments, such as

attending treatment sessions and providing drug-negative urine specimens. Most of the draws earn only a written declaration of success, such as a certificate of accomplishment for the week signed by the judge. Others earn small prizes of roughly \$5 to \$10 in value, and a small percentage earns larger prizes, such as DVDs, tickets to sporting events, or clothing for work or school.

Research indicates the fishbowl procedure can produce comparable or better outcomes at a lower cost than programs that reward participants for every achievement (Petry et al., 2005; Sigmon & Stitzer, 2005). The possibility of winning a substantial reward appears to compensate for the reduced chances of actual success, and the lottery process adds entertainment value as well. Contrary to some concerns, there is no evidence that fishbowl procedures trigger gambling behaviors (Petry et al., 2006) or that participants exchange their rewards for drugs or other inappropriate acquisitions (Festinger et al., 2008; Festinger & Dugosh, 2012; Roll et al., 2005).

The use of tangible incentives may be particularly impactful for high-risk, antisocial offenders who would ordinarily have the poorest outcomes in correctional rehabilitation programs (Marlowe et al., 1997, 2008; Messina, Farabee, & Rawson, 2003). Because many of these individuals have habituated to punishment and are not accustomed to receiving positive reinforcement, tangible rewards may exert substantially greater control over their behavior than threats of punishment.

### Fishing for Tangible Resources

#### **Practice Pointer**

*Stretch program resources by incentivizing participants with opportunities to draw rewards from a fishbowl. Most of the rewards may be of low or no dollar value, but a few should be highly desirable to participants.*

<sup>2</sup> The National Drug Court Institute (NDCI) maintains a list of incentives and sanctions that are being used by hundreds of Drug Courts around the country. The list is available at <http://www.ndcic.org/content/list-incentives-and-sanctions>.

## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### Do Due Process

Participants are most likely to react favorably to receiving sanctions or not receiving rewards if they believe fair procedures were followed in making the decision. The best outcomes are achieved when participants are given a reasonable opportunity to explain their side of the dispute, are treated in an equivalent manner to similar people in similar circumstances, and are accorded respect and dignity throughout the process (Burke & Leben, 2007). This does not imply that participants should necessarily get the outcome they desire. They should be given a fair chance to explain their side of the story and a clear-headed rationale for how and why a particular decision was reached.

Most importantly, being condescending or discourteous is never appropriate. Even the most severe sanctions should be delivered dispassionately with no suggestion that the judge or other team members take pleasure from meting out punishment. Numerous studies have reported better outcomes for Drug Courts in which the judges were rated as being respectful, fair, consistent, and supportive in their interactions with participants (Farole & Cissner, 2007; Senjo & Leip, 2001; Zweig et al., 2012).

Drug Courts also tend to have better outcomes when they clearly specify their policies and procedures regarding incentives and sanctions in a written program handbook or manual (Carey et al., 2008, 2012). Staff members and participants should be clearly informed in advance about the specific behaviors that may trigger sanctions or rewards; the types of sanctions and rewards that may be imposed; the criteria for phase advancement, graduation, and termination; and the consequences that may ensue from graduation and termination. However, rigidly applying a set template of sanctions and rewards may undermine participant progress or buy-in. Outcomes are better when the team reserves a reasonable degree of discretion and flexibility to modify its responses based on extenuating circumstances encountered in individual cases (Zweig et al., 2012).

### Do Due Process

#### Practice Pointers

- *Allow participants a reasonable chance to explain their side of any dispute, administer equivalent consequences for equivalent behaviors, and accord all participants respect and dignity throughout the process.*
- *Specify policies and procedures concerning incentives and sanctions in a written program handbook or manual, and ensure that all staff members and participants are familiarized with the procedures.*

### Sanctions or Therapeutic Consequences?

A common point of contention in many Drug Courts is whether participants should receive punitive sanctions for positive drug tests or whether their treatment plans should be adjusted. The answer depends on whether their usage is compulsive. Individuals who are dependent on or addicted to drugs or alcohol (substance dependent individuals) should be expected to require time and effort to achieve sustained sobriety. If a Drug Court imposes high-magnitude sanctions for substance use early in treatment, odds are the team will run out of sanctions before treatment has had a chance to take effect, and the participant might fail out of the program. This practice could paradoxically make the most substance-dependent individuals, who need treatment the most, more prone to failure in Drug Courts.

For this reason, Drug Courts typically administer a gradually escalating sequence of consequences for substance use. The earliest consequences often involve enhancing treatment services, whereas later consequences may include punitive sanctions of increasing severity. Once a participant has received a reasonable dose of treatment and has begun to stabilize, then it becomes appropriate for the team to raise its expectations and apply punitive consequences for drug or alcohol use.

Evidence suggests, however, that not all participants in Drug Courts may be substance dependent. Some participants may be abusing these substances but do not meet diagnostic criteria for dependence (DeMatteo et al., 2009). These individuals (substance abusers) may experience repeated adverse consequences of substance use, such as multiple criminal arrests or car accidents, but their usage is largely under voluntary control. For them, increasing treatment would not be a logical consequence for substance use because they may not require such services. Moreover, applying gradually escalating sanctions could have the unintended effect of permitting them to continue abusing substances for some period of time until the sanctions reached a sufficient threshold of severity to gain their attention. For them, the preferable course of action would be to apply higher-magnitude sanctions for substance use early in the program, so as to put a rapid end to this voluntary misconduct.

Because substance-dependent individuals and substance abusers should ordinarily receive different consequences for substance use early in treatment, separating them into different status hearings is advisable. Doing so helps to avoid perceptions of unfairness if some participants receive lenient therapeutic consequences while others receive punitive sanctions for comparable infractions.

Under no circumstance should a nonclinically trained judge or probation officer make the decision to increase the intensity of treatment as a punishment for noncompliance or reduce the intensity of treatment as a reward for compliance. Recommendations to change the treatment plan should be made by duly trained clinicians, and the judge should act on the basis of those expert recommendations in ordering the conditions of treatment.

## Sanctions or Therapeutic Consequences?

### Practice Pointers

- *For substance-dependent participants, administer treatment oriented consequences for substance use early in the program, such as increasing the required number of counseling sessions, transferring the individual to a more intensive level of care, or evaluating the participant for possible medication.*
- *Once substance-dependent participants have engaged in treatment and achieved an initial sustained interval of sobriety, begin applying escalating sanctions for substance use.*
- *For nonaddicted substance abusers, begin applying escalating sanctions for substance use during the initial phase of the program.*
- *Hold status hearings separately for substance-dependent participants vs. substance abusers to avoid potential perceptions of unfairness.*
- *Rely on the clinical expertise of duly trained treatment professionals when ordering changes to the treatment regimen.*

## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### First Things First

Distinguishing between proximal and distal behavioral goals is essential to modifying habitual behaviors. *Proximal* goals are behaviors that participants are already capable of performing and are necessary for long-term objectives to be achieved. Examples might include attendance at counseling sessions and delivery of urine specimens. *Distal* goals are the behaviors that are ultimately desired, but will take some time for participants to accomplish. Examples might include gainful employment or effective parenting.

A Drug Court should generally sanction high if a participant fails to meet proximal expectations and sanction low if a participant fails to meet distal expectations. If a participant receives low-magnitude sanctions for failing to fulfill easy obligations, this will almost certainly lead to habituation. If a participant receives severe sanctions for failing to meet difficult demands, this will almost certainly lead to hostility, ceiling effects, or a sense of learned helplessness. For example, a participant who fails to show up for counseling sessions or who delivers tampered urine specimens should ordinarily receive a substantial punitive sanction, such as home curfew, community service, or a brief period of detention. However, if that same participant failed to find a job or enroll in an educational program during the early phases of the program, he or she should receive a lesser consequence, such as a verbal reminder or essay assignment. This process, called *shaping*, permits Drug Courts to navigate between habituation and ceiling effects and thus achieve effective outcomes.

The converse rule of thumb applies to rewards. Lower-magnitude rewards should be administered for easy, proximal behaviors, and higher-magnitude rewards should be administered for difficult, distal behaviors. For example, participants might receive verbal praise and encouragement for attending counseling sessions, but might receive reduced supervision requirements for finding a job or returning to school.

The earlier discussion concerning participants who are substance dependent vs. substance abusers is highly relevant here. For participants who are dependent on drugs or alcohol, abstinence is a distal goal; therefore, positive

drug tests should ordinarily receive low-magnitude, therapeutic consequences during the early phases of treatment. For substance abusers, however, abstinence is an easier-to-accomplish proximal goal, and they therefore should receive higher-magnitude punitive sanctions for drug use from the outset.

### First Things First

#### Practice Pointers

- *Distinguish between proximal behaviors that participants are already capable of performing and distal behaviors that they are not yet capable of performing.*
- *Begin by assigning higher-magnitude sanctions and lower-magnitude rewards to easy proximal behaviors, and assigning lower-magnitude sanctions and higher-magnitude rewards to difficult distal behaviors.*

### Phase Advancement

Distal goals eventually become proximal goals as participants make progress in the program. For example, after achieving a stable period of sobriety, finding a job or enrolling in an educational program becomes easier to accomplish. Therefore, participants should begin to receive higher-magnitude sanctions over time for failing to fulfill such obligations and should receive lower-magnitude rewards for accomplishing them.

The primary purpose of phase advancement in a Drug Court is to inform participants that what was previously a distal goal has now become a proximal goal. For example, phase one in many Drug Courts focuses on stabilization of the participant and induction into treatment. The emphasis might be placed on completing clinical assessments, establishing a daily routine, abiding by a home curfew, and obtaining a self-help group sponsor. Participants would ordinarily not, however, be required (or even encouraged) to find a job or return to school



at this early stage in their recovery. Once a participant has become stabilized and developed a proper routine, however, he or she would then be advanced to phase two in which other goals, such as employment or education, may become more salient. Thus, failing to attend job training during phase one might receive no consequence or only a minimal consequence, whereas failing to attend job training during phase two or three might elicit a more substantial sanction.

Each time a participant is advanced to a higher phase in the program, the team should take the opportunity to remind all participants about what was required for the phase advancement to occur and what new challenges await the individual. The judge should review the process of phase advancement in court and explain to all participants the implications of moving from one phase to another. In this way, participants will not be surprised when program expectations of them and the consequences for misbehaviors increase accordingly.

### Phase Advancement

#### **Practice Pointers**

- *Identify which distal behaviors have become proximal as participants advance to each successive phase in the program. Increase the magnitude of sanctions and reduce the magnitude of rewards for those behaviors accordingly.*
- *Review in open court the process of phase advancement and the changing expectations that ensue whenever a participant advances to a new phase.*

## Conclusion

At its core, the criminal justice system is a behavior modification program designed to reduce crime and rehabilitate offenders. Historically, unfortunately, rewards and sanctions were rarely applied in a systematic manner that could produce meaningful or lasting effects. Dissatisfied with this unacceptable state of affairs, a group of criminal court judges set aside special dockets to provide closer supervision and greater accountability for substance-dependent and substance-abusing offenders. Wittingly or unwittingly, these judges devised programs that are highly consonant with the scientific principles of contingency management or operant conditioning.

Research now confirms that the effectiveness and cost-effectiveness of any Drug Court will depend largely on its ability to apply these behavioral techniques correctly and efficiently. Drug Courts that ignore the lessons of science are not very effective and waste precious resources and opportunities. Drug Court teams should periodically consult the latest findings on behavior modification and attend training and technical assistance activities to ensure they are making the most of their limited resources and leveraging the best outcomes for their participants and their communities.

## **BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS**

### **Suggested Readings**

Burdon, William M., John M. Roll, Michael L. Prendergast, & Richard A. Rawson. (2001). Drug courts and contingency management. *Journal of Drug Issues*, 31, 73–90.

Harrell, Adele, & John Roman. (2001). Reducing drug use and crime among offenders: The impact of graduated sanctions. *Journal of Drug Issues*, 31, 207–32.

Lindquist, Christine H., Christopher P. Krebs, & Pamela K. Lattimore. (2006). Sanctions and rewards in drug court programs: Implementation, perceived efficacy, and decision making. *Journal of Drug Issues*, 36, 119–146.

Marlowe, Douglas B. (2007). Strategies for administering rewards and sanctions. In J.E. Lessenger & G.F. Roper (Eds.), *Drug courts: A new approach to treatment and rehabilitation* (pp. 317–336). New York: Springer.

Marlowe, Douglas B. (2008). Application of sanctions [Monograph Series No. 9]. In C. Hardin & J.N. Kushner (Eds.), *Quality improvement for drug courts: Evidence-based practices* (pp. 107–114). Alexandria, VA: National Drug Court Institute.

Marlowe, Douglas B. (2011). Applying incentives and sanctions. In D.B. Marlowe & W.B. Meyer (Eds.), *The drug court judicial benchbook* (pp. 139–157). Alexandria, VA: National Drug Court Institute. Available at [http://www.ndci.org/sites/default/files/nadcp/14146\\_NDCI\\_Benchbook\\_v6.pdf](http://www.ndci.org/sites/default/files/nadcp/14146_NDCI_Benchbook_v6.pdf).

Marlowe, Douglas B., & Conrad J. Wong. (2008). Contingency Management in Adult Criminal Drug Courts. In S.T. Higgins, K. Silverman, & S.H. Heil (Eds.), *Contingency management in substance abuse treatment* (pp. 334–354). New York: Guilford Press.

Petry, Nancy M. (2000). A comprehensive guide to the application of contingency management procedures in clinical settings. *Drug & Alcohol Dependence*, 58 (1-2): 9–25.

Stitzer, Maxine L. (2008). Motivational incentives in drug courts. In C. Hardin & J.N. Kushner (Eds.), *Quality improvement for drug courts: Evidence-based practices* (pp. 97–105). Alexandria, VA: National Drug Court Institute.

### **References**

Burke, K., & Leben, S. (2007). Procedural fairness: A key ingredient in public satisfaction. *Court Review*, 44, 4–24.

Carey, S.M., Finigan, M.W., & Pukstas, K. (2008). *Exploring the key components of drug courts: A comparative study of 18 adult drug courts on practices, outcomes and costs*. Portland, OR: NPC Research. Available at [www.npcresearch.com](http://www.npcresearch.com).

Carey, S.M., Mackin, J.R., & Finigan, M.W. (2012). What works? The 10 key components of drug court: Research-based best practices. *Drug Court Review*, 8 (1), 6–42.

Cary, P.L. (2011). The fundamentals of drug testing. In D.B. Marlowe & W.B. Meyer (Eds.), *The drug court judicial benchbook* (pp. 113–138). Alexandria, VA: National Drug Court Institute. Available at [http://www.ndci.org/sites/default/files/nadcp/14146\\_NDCI\\_Benchbook\\_v6.pdf](http://www.ndci.org/sites/default/files/nadcp/14146_NDCI_Benchbook_v6.pdf).

DeMatteo, D.S., Marlowe, D.B., Festinger, D.S., & Arabia, P.L. (2009). Outcome trajectories in drug court: Do all participants have serious drug problems? *Criminal Justice & Behavior*, 36, 354–368.

Farole, D.J., & Cissner, A.B. (2007). Seeing eye to eye: Participant and staff perspectives on drug courts. In G. Berman, M. Rempel, & R.V. Wolf (Eds.), *Documenting results: Research on problem-solving justice* (pp. 51–73). New York: Center for Court Innovation.

Festinger, D.S., & Dugosh, K.L. (2012). Paying substance abusers in research studies: Where does the money go? *American Journal of Drug & Alcohol Abuse*, 38(1), 43–48.

Festinger, D.S., Marlowe, D.B., Dugosh, K.L., Croft, J.R., & Arabia, P.L. (2008). Higher magnitude cash payments improve research follow-up rates without increasing drug use or perceived coercion. *Drug & Alcohol Dependence*, 96, 128–135.

Festinger, D.S., Marlowe, D.B., Lee, P.A., Kirby, K.C., Bovasso, G., & McLellan, A.T. (2002). Status hearings in drug court: When more is less and less is more. *Drug & Alcohol Dependence*, 68, 151–157.

Flango, V.E., & Cheesman, F.L. (2009). The effectiveness of the SCRAM alcohol monitoring device: A preliminary test. *Drug Court Review*, 6, 109–134.

Gendreau, P. (1996). The principles of effective intervention with offenders. In A. Harland (Ed.), *Choosing correctional options that work* (pp. 117–130). Thousand Oaks, CA: Sage.

## References *(continued)*

- Goldkamp, J.S., White, M.D., & Robinson, J.B. (2002). An honest chance: Perspectives on drug courts. *Federal Sentencing Reporter*, 6, 369–372.
- Harberts, H. (2007). Probation strategies. In J.E. Lessenger & G.F. Roper (Eds.), *Drug courts: A new approach to treatment and rehabilitation* (pp. 355–376). New York: Springer.
- Harberts, H. (2011). Community supervision. In D.B. Marlowe & W.B. Meyer (Eds.), *The drug court judicial benchbook* (pp. 97–111). Alexandria, VA: National Drug Court Institute. Available at [http://www.ndci.org/sites/default/files/nadcp/14146\\_NDCI\\_Benchbook\\_v6.pdf](http://www.ndci.org/sites/default/files/nadcp/14146_NDCI_Benchbook_v6.pdf).
- Harrell, A., & Roman, J. (2001). Reducing drug use and crime among offenders: The impact of graduated sanctions. *Journal of Drug Issues*, 31, 207–32.
- Jones, C. (2011). *Intensive judicial supervision and drug court outcomes: Interim findings from a randomised controlled trial*. Sydney, Australia: New South Wales Bureau of Crime Statistics & Research.
- Lindquist, C.H., Krebs, C.P., & Lattimore, P.K. (2006). Sanctions and rewards in drug court programs: Implementation, perceived efficacy, and decision making. *Journal of Drug Issues* 36: 119–146.
- Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Arabia, P.L., & Kirby, K.C. (2008). An effectiveness trial of contingency management in a felony preadjudication drug court. *Journal of Applied Behavior Analysis*, 41, 565–577.
- Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Lee, P.A., & Benasutti, K.M. (2007). Adapting judicial supervision to the risk level of drug offenders: Discharge and six-month outcomes from a prospective matching study. *Drug & Alcohol Dependence*, 88(Suppl. 2), 4–13.
- Marlowe, D.B., Festinger, D.S., Lee, P.A., Dugosh, K.L., & Benasutti, K.M. (2006). Matching judicial supervision to clients' risk status in drug court. *Crime & Delinquency* 52: 52–76.
- Marlowe, D.B., & Kirby, K.C. (1999). Effective use of sanctions in drug courts: lessons from behavioral research. *National Drug Court Institute Review*, 2, 1–31.
- Marlowe, D.B., Kirby, K.C., Festinger, D.S., Husband, S.D., & Platt, J.J. (1997). Impact of comorbid personality disorders and personality disorder symptoms on outcomes of behavioral treatment for cocaine dependence. *Journal of Nervous and Mental Disease*, 185, 483–490.
- McIntire, R.L., Lessenger, J.E., & Roper, G.F. (2007). The drug and alcohol testing process. In J.E. Lessenger & G.F. Roper (Eds.), *Drug courts: A new approach to treatment and rehabilitation* (pp. 234–246). New York: Springer.
- Messina, N., Farabee, D., & Rawson, R. (2003). Treatment responsiveness of cocaine-dependent patients with antisocial personality disorder to cognitive-behavioral and contingency management interventions. *Journal of Consulting & Clinical Psychology*, 71, 320–329.
- Petry, N.M., Kolodner, K.B., Li, R., Peirce, J.M., Roll, J.M., Stitzer, M.L., et al. (2006). Prize-based contingency management does not increase gambling. *Drug & Alcohol Dependence*, 83, 269–273.
- Petry, N.M., Peirce, J.M., Stitzer, M.L., Blaine, J., Roll, J.M., Cohen, A., et al. (2005). Effect of prize-based incentives on outcomes in stimulant abusers in outpatient psychosocial treatment programs. *Archives of General Psychiatry*, 62, 1148–1156.
- Roll, J.M., Prendergast, M.L., Sorenson, K., Prakash, S., & Chudzynski, J.E. (2005). A comparison of voucher exchanges between criminal justice involved and noninvolved participants enrolled in voucher-based contingency management drug abuse treatment programs. *American Journal of Drug & Alcohol Abuse*, 31, 393–401.

## **BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS**

Rossman, S.B., & Zweig, J.M. (2012, May). *What have we learned from the Multisite Adult Drug Court Evaluation? Implications for practice and policy*. Alexandria, VA: National Association of Drug Court Professionals. Retrieved from <http://www.nadcp.org/sites/default/files/nadcp/Multisite%20Adult%20Drug%20Court%20Evaluation%20-%20NADCP.pdf>.

Senjo, S.R., & Leip, L.A. (2001). Testing and developing theory in Drug Court: A four-part logit model to predict program completion. *Criminal Justice Policy Review*, 12, 66–87.

Sigmon, S.C., & Stitzer, M.L. (2005). Use of a low-cost incentive intervention to improve counseling attendance among methadone-maintained patients. *Journal of Substance Abuse Treatment*, 29, 253–258.

Stitzer, M. L. (2008). Motivational incentives in drug courts. In C. Hardin & J.N. Kushner (Eds.), *Quality improvement for drug courts: Evidence-based practices* (pp. 97–105). Alexandria, VA: National Drug Court Institute.

Wodahl, E.J., Garland, B., Culhane, S.E., & McCarty, W.P. (2011). Utilizing behavioral interventions to improve supervision outcomes in community-based corrections. *Criminal Justice & Behavior*, 38, 386–405.

Zweig, J.M., Lindquist, C., Downey, P.M., Roman, J., & Rossman, S.B. (2012). Drug court policies and practices: How program implementation affects offender substance use and criminal behavior outcomes. *Drug Court Review*, 8(1), 43–79.





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## Appendix B

### NPC Research Sample of Drug Court Reward and Sanction Guidelines

#### Examples of Rewards and Sanctions Used By Other Drug Courts

Drug Court Responses to Participant Behavior (Rewards and Sanctions) Ideas and Examples:

The purpose of rewards and sanctions in drug court programs is to help shape participant behavior in the direction of drug court goals and other positive behaviors. That is, to help guide offenders away from drug use and criminal activity and toward positive behaviors, including following through on program requirements. Drug court teams, when determining responses to participant behavior, should be thinking in terms of behavior change, not punishment. The questions should be, “What response from the team will lead participants to engage in positive, pro-social behaviors?”

Sanctions will assist drug court participants in what not to do, while rewards will help participants learn they should do. Rewards teach that it can be a pleasant experience to follow through on program requirements and in turn, to follow through on positive life activities. It is important to incorporate both rewards and sanctions.

Below are some examples of drug court team responses, rewards and sanctions that have been used in drug courts across the United States.

#### ***Rewards***

No cost or low cost rewards:

- Applause and words of encouragement from drug court judge and staff.
- Have judge come off the bench and shake participant’s hand.
- Photo taken with Judge.
- A “Quick List or Rocket Docket” Participants who are doing well get called first during court sessions and are allowed to leave when done.
- A white board or magnetic board posted during drug court sessions where participants can put their names when they are doing well. There can be a board for each phase so when participants move from one phase to the next, they can move their names up a phase during the court session.
- Decrease frequency of program requirements as appropriate—fewer self-help (AA/NA) groups, less frequent court hearings, less frequent drug tests.
- Lottery or fishbowl drawing. Participants who are doing well have their names put in the lottery. The names of these participants are read out in court (as acknowledgement of success) and then the participant whose name is drawn receives a tangible reward (candy, tickets to movies or other appropriate events, etc.).
- Small tangible rewards.
- Bite size candies.
- Key chains, or other longer lasting tangible rewards to use as acknowledgements when participants move up in phase.

Higher cost (generally tangible) rewards:

- Fruit (for staff that would like to model a healthy diet!).
- Candy bars.
- “The Basket” which is filled with candy bars—awarded during the drug court session when participant is doing everything “right”.

- Coffee bucks.
- Gift certificates for local stores.
- Scholarships to local schools.
- Tokens presented after specified number of clean days given to client by judge during court and judge announces name and number of clean days.
- Swimming passes to local pool.

### ***Responses to (and Sanctions for) Non-Compliant Behavior***

- Require participants to write papers or paragraphs appropriate to their non-compliant behavior and problem solve on how they can avoid the non-compliant behavior in the future.
- “Showing the judge’s back.” During a court appearance, the judge turns around in his or her chair to show his/her back to the participants. The participant must stand there waiting for the judge to finish their interaction. (This appears to be a very minor sanction but can be very effective!)
- Being reprimanded by the judge.
- “Sit sanctions.” Participants are required to come to drug court hearings (on top of their own required hearings) to observe. Or, participants are required to sit in regular court for drug offenders and observe how offenders are treated outside of drug court.
- Increasing frequency of drug court appearances.
- Increasing frequency of self-help groups (for example, 30 AA/NA meetings in 30 days or 90 AA/NA meetings in 90 days).
- Increasing frequency of treatment sessions.
- Use of behavior contracts.
- One day or more in jail. (Be careful, this is an expensive sanction and is not always the most effective!)
- “Impose/suspend” sentence. The judge can tell a participant who has been non-compliant that he or she will receive a certain amount of time in jail (or some other sanction) if they do not comply with the program requirements and/or satisfy any additional requirements the staff requests by the next court session. If the participant does not comply by the next session, the judge imposes the sentence. If the participant does comply by the next session, the sentence is “suspended” and held over until the next court session, at which time, if the participant continues to do well, the sentence will continue to be suspended. If the participant is non-compliant at any time, the sentence is immediately imposed.
- Community service. The best use of community service is to have an array of community service options available. If participants can fit their skills to the type of service they are providing, and if they can see the positive results of their work, they will have the opportunity to learn a positive lesson on what it can mean to give back to their communities. Examples of community service that other drug courts have used are: helping to build houses for the homeless (e.g., Habitat for Humanity), delivering meals to hungry families, fixing bikes or other recycled items for charities, planting flowers or other plants, cleaning and painting in community recreation areas and parks. Cleaning up in a neighborhood where the participant had caused harm or damage in the past can be particularly meaningful to the participants.
- Rather than serve jail time, or do a week of community service, the participant works in the jail for a weekend.

## SAMPLE OF DRUG COURT REWARD AND SANCTION GUIDELINES

*Scenario One: Testing positive for a controlled substance*

Court Response:

- Increased supervision/reporting
- Increased urinalysis
- Community service
- Remand with a written assignment
- Incarceration (graduated)
- Discharge from the program

Treatment Response:

- Review treatment plan for appropriate treatment services.
- Write an essay about your relapse and things you will do differently.
- Write and present a list of why you want to stay clean and sober.
- Write and present a list of temptations (people, objects, music, and locations) and what you plan to put in their place.
- Make a list of what stresses you and what you can do to reduce these stresses.
- Residential treatment for a specified period of time (if continual positive tests).
- Additional individual sessions and/or group sessions.
- Extension of participation in the program.
- Repeat Program Phase.

### REWARDS

If the participant complies with the program, achieves program goals and exhibits drug-free behavior, he/she will be rewarded and encouraged by the court through a series of incentives. Participants will be able to accrue up to 50 points to become eligible to receive a reward. After accruing 50 points, the participant will start over in point accrual until he/she reaches 50 points again. The points are awarded as follows:

Achievement	Points Awarded
• Step Walking (12 step)	3
• All Required AA/NA Meetings Attended	1
• AA/NA Sheet turned in on time	1
• Attended all required treatment activities at the program	1
• Phase Change	5
• 3 Month Chip	2
• 6 Month Chip	4
• 9 Month Chip	6
• 1 Year Chip	8
• Obtained a job (part time)	3
• Obtained a job (full time)	5
• Graduated from Vocational Training	5
• Obtained a GED	5
• Graduated from Junior College	5
• Obtained a Driver's License	4
• Bought a car	4

• Obtained Safe Housing (Renting)	4
• Obtained Safe Housing (Buying)	5
• Taking Care of Health Needs	3
• Finding a Sponsor	3
• Helping to interpret	1
• Promotion/raise at work	3
• Obtaining MAP/Medi-Cal/Denti-Cal	3
• Parenting Certificate	2
• Judge's Discretion	1 to 5

Incentive items that are given to the participants (upon availability) include but are not limited to:

- Bus passes.
- A donated bicycle that may be kept for the duration of time in drug court. After completion of drug court, the bicycle must be returned. (A terminated participant must return the bicycle forthwith.)
- Pencils, key chains: awarded for Phase Changes.
- Personal hygiene products.
- Framing any certificate of completion from other programs, or certificates showing length of sobriety.
- Haircuts.
- Eye wear.
- Movie passes.
- Food coupons.

## References

- Barnoski, R., Aos, S. (2003) *Washington State's drug courts for adult defendants: Outcome evaluation and cost-benefit analysis*. Olympia: Washington State Institute for Public Policy
- Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders*. Olympia: Washington State Institute for Public Policy.
- Carey, S.M., Mackin, J.R., & Finigan, M.W., (2012). What works? The ten key components of drug court: research-based best practices. *Drug Court Review, Vol III, issue I*.
- Carey, S. M., Finigan, M. W., Waller, M. S., Lucas, L. M., & Crumpton, D. (2005). *California drug courts: A methodology for determining costs and benefits, Phase II: Testing the methodology, final report*. Submitted to the California Administrative Office of the Courts, November 2004. Submitted to the USDOJ Bureau of Justice Assistance in May 2005.
- Cox, G., Brown, L., Morgan, C. & Hansten, M. (2001). *Drug court evaluation project*. Seattle, WA: Alcohol and Drug Abuse Institute, University of Washington.
- Crea, T. M., Usher, C. L., & Wild-re, J. B. (2009). Implementation -delity of Team Decision making. *Children & Youth Services Review*, 31, 119.124.
- Drug Court Clearinghouse and Technical Assistance Project. (1999). *Looking at a decade of drug courts*. Washington, DC: American University, U.S. Department of Justice.
- Fox, A., & Wolf, R. V. (2004). The Future of Drug Courts. Center for Court Innovation, Submitted to the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice.
- Glick H, Doshi JA, Sonnad SS, Polsky D. *Economic evaluation in clinical trials*. Oxford University Press; 2007.
- Gold MR, Siegel JE, Russell LB, Weinstein MC. *Cost-effectiveness in health and medicine*. New York: Oxford University Press; 1996.
- Hunt, D., Chapman, M., Jalbert, S. & Kling, R. (2014). Office of National Drug Control Policy 2013 *Annual Report, Arrestee Drug Abuse Monitoring Program II*. Washington, DC: Executive Office of the President.
- Huxham, C., and Vangen, S., (2005). *Managing to collaborate: The theory and practice of collaborative advantage*. New York, Routledge.
- Latessa, E.J., and Lowenkamp, C. (2006). What works in reducing recidivism? *University of St. Thomas Law Journal*, 3(3), 521-535.
- Lipsky, M. (1980) *Street-level Bureaucracy: The Dilemmas of Individuals in Public Service*, New York, Russell Sage Foundation.

Marlowe, D.B. (2012) *Targeting the Right Participants in Adult Drug Courts*. National Drug Court Institute. Practitioner Fact Sheet.

Mayfield J, Estee S, Black C, Felver B. (2013) *Drug court outcomes: Outcomes of adult defenders admitted to drug courts funded by the Washington State criminal justice treatment account*. Olympia: Washington State Department of Social and Health Service.

McCollister KE, French MT, Fang H. (2010) The cost of crime to society: new crime-specific estimates for policy and program evaluation. *Drug Alcohol Dependency*, 108(1-2):98-109.

Melde, C., Esbensen, F., & Tusinski, K. (2006). Addressing program fidelity using onsite observations and program provider descriptions of program delivery. *Evaluation Review*, 30(6), 714-740.

Mitchell, O., Wilson, D., Egger, A., & McKenzie, D., (2012). Assessing the effectiveness of drug courts on recidivism: A meta-analytic review of traditional and non-traditional drug courts. *Journal of Criminal Justice*, 40, pgs 60–71

Murphy, D. and Lutze, F. (2009). Police-Probation Partnerships: Professional Identity and the Sharing of Coercive Power. *Journal of Criminal Justice*, 37 (1), pg 65-76.

National Association of Drug Court Professionals (1997). *Defining Drug Courts: The Key Components*.

National Institute of Justice. (2006). *Drug courts: The second decade*. Washington D.C.: National Institute of Justice, Office of Justice Programs.

Park RE. Estimation with heteroscedastic error terms. *Econometrica*. 1966;34(4):888.

Rhine, E.E., Mawhorr, T.L., & Parks, E.C. (2006). Implementation: The bane of effective correctional programs. *Criminology & Public Policy*, 5(2), 347-358.

Washington State Auditor's Office. Local Government Financial Reporting System. <http://portal.sao.wa.gov/LGCS/Reports/>. Accessed 10/03/13.

Washington Association of Sheriffs and Police Chiefs. <http://www.waspc.org/>. Accessed 10/03/13.

Wenzel, S.L., Longshore, D., Turner, S., & Ridgely, S.M. (2001). Drug courts: A bridge between criminal justice and health services. *Journal of Criminal Justice*, 29, p. 241-253.

United States Government Accountability Office. (2005). *Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes* (GAO Publication No. GAO-05-219). Washington, DC: United States Government Accountability Office.

United States Government Accountability Office. (2011). *Adult drug courts: Studies show courts reduce recidivism, but DOJ could enhance future performance measure revision efforts* (GAO Publication No. GAO-12-53). Washington, DC: United States Government Accountability Office.

van Wormer, J. (2010). *Understanding Operational Dynamics of Drug Courts*. Unpublished Dissertation. Washington State University

Zweig, J.M., Lindquist, C., Downey, P.M., Roman, J., & Rossman, S.B. (2012). Drug court policies and practices: How program implementation affects offender substance use and criminal behavior outcomes. *Drug Court Review*, 8(1), 43–79.