Exploring the Key Components of Drug Courts: A Comparative Study of 18 Adult Drug Courts on Practices, Outcomes and Costs

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Informing policy, improving programs

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BACKGROUND

For close to 20 years in the United States, there has been a trend toward guiding nonviolent drug offenders into treatment rather than incarceration. The drug court model links the resources of the criminal system and substance treatment programs to increase treatment participation and decrease criminal recidivism. Drug treatment courts are one of the fastest growing programs designed to reduce drug abuse and criminality in nonviolent offenders in the nation. The first drug court was implemented in Miami, Florida, in 1989. As of March 2008, there were 1,853 adult and juvenile drug courts active in all 50 states, the District of Columbia, Northern Mariana Islands, Puerto Rico, and Guam (BJA, 2008).

In a typical drug court program, participants are closely supervised by a judge who is supported by a team of agency representatives that operate outside of their traditional adversarial roles. These include addiction treatment providers, district attorneys, public defenders, law enforcement officers, and parole and probation officers who work together to provide needed services to drug court participants. Generally, there is a high level of supervision and a standardized treatment program for all the participants within a particular court (including phases that each participant must pass through by meeting certain goals). Supervision and treatment may also include regular and frequent drug testing.

The rationale of the drug court model is supported by the research literature. There is evidence that treating substance abuse leads to a reduction in criminal behavior as well as reduced use of the health care system. Gerstein, Harwood, Fountain, Suter, and Malloy (1994) found positive effects of drug and alcohol treatment on self-reported subsequent criminal activity in a statewide sample. The National Treatment Improvement Evaluation Study (Substance Abuse and Mental Health Services Administration, 1997) found significant declines in criminal activity comparing the 12 months prior to treatment and the 12 months subsequent to treatment. These findings included considerable drops in the self-reported behavior of selling drugs, supporting oneself through illegal activity, shoplifting, and criminal arrests. In a study using administrative data in the State of Oregon, Finigan (1996) also found significant reduction in police-report arrests for those who completed treatment.

Drug courts use the coercive authority of the criminal justice system to offer treatment to nonviolent addicts in lieu of incarceration. This model of linking the resources of the criminal justice system and substance treatment programs has proven to be effective for increasing treatment participation and decreasing criminal recidivism. In a meta-analysis of drug court impact studies, Wilson, Mitchell, and MacKenzie (2002) found that 34 of 40 evaluations using matched comparison groups of individuals who did not participate in drug court reported lower rates of crime among drug court participants. The pooled results also showed significantly lower amounts of recidivism.

Recent research has also reported that drug court programs have been cost beneficial in local criminal justice systems (Marchand, Waller, & Carey, 2006a and 2006b; Carey, Finigan, Waller, Lucas, & Crumpton 2005; Crumpton, Brekhus, Weller, & Finigan, 2004; Carey & Finigan, 2003; Fomby & Rangaprasad, 2002). Limited research has also shown that drug courts may be cost beneficial in impacting other publicly supported services: child welfare, physical health care, mental health care, and employment security (Finigan, 1998; Crumpton, Worcel, & Finigan, 2003). Some drug courts have even been shown to cost less to operate than processing offenders through business-as-usual (Carey & Finigan, 2003; Carey et al., 2005).

Belenko (1998, 2001) provides a summary review of drug court research. He suggests that the research findings are consistent with the following:

1. Drug courts are successful in engaging and retaining offenders in treatment,
2. Drug courts provide more comprehensive supervision of offenders,
3. Drug use is reduced for offenders who participate in drug court,
4. Criminal recidivism is reduced for offenders,
5. Drug courts can generate cost savings, and
6. Drug courts can successfully bridge the gap between multiple publicly funded systems.

Given the rapid expansion of drug courts across the country, there has been interest in standardizing the drug court model. The National Association of Drug Court Professionals led this effort in their groundbreaking publication, *Defining Drug Courts: The Key Components* (National Association of Drug Court Professionals, 1997). In this work, they prescribe 10 operational characteristics that all drug courts should share as benchmarks for performance. These include practices such as drug testing, judicial interaction with participants, and the integration of alcohol and other drug treatment services with justice system case processing.

Today, the 10 Key Components are well established and ubiquitous among drug court systems. However, the key components are essentially guidelines for implementation and leave much room for each drug court's interpretation. For example, the key components prescribe frequent drug testing of participants but do not specify the preferred method of testing or define "frequent." They prescribe independent evaluations and periodic staff trainings; however, the frequency of these activities is not addressed. In practice, each drug court's adherence to the 10 Key Components may look very different.

It is important to understand how drug courts are defining the 10 Key Components and implementing these practices in their courts. This information is helpful to emerging courts that may be searching for pre-existing policies or practices upon which they can model their program. For courts already in operation, this information offers the opportunity to glimpse how other courts are operating and whether their model is consistent with the majority. For policymakers and researchers, the information provides a framework for evaluating how and the extent to which the 10 Key Components have been implemented across courts. Even more importantly, these factors can be further tested to see if different implementation decisions lead to different outcomes or costs. Such findings could lead to programmatic changes or to an even greater standardization of the 10 Key Components. Ultimately, the information will better prepare policymakers in helping drug courts transition from innovative pilot programs into institutionalized state agencies (Fox & Wolf, 2004).

This paper explores how different drug court programs are implementing the 10 Key Components and, in particular, how practices vary across programs. This paper also examines whether and how these practices have impacted participant outcomes and program costs including graduation rate, program investment costs, and outcome costs related to participant criminal justice recidivism.

PURPOSE

There are three main policy questions that are the focus of this paper.

1. How do drug courts operationalize the 10 Key Components? What practices do they use?
2. Which practices are consistently implemented and which practices have considerable variation across drug court sites?
3. How do the practices implemented in various drug courts relate to outcomes?

The answers will help researchers better understand how drug court programs operate and whether there is significant variation across sites. If there is significant variation, then those processes could be further explored to see if the identified processes correlate with positive outcomes or cost savings. If there is no significant variation, then most drug courts have chosen to implement the 10 Key Components in the same manner. This lack of variation could suggest that programs need to look beyond the 10 Key Components to other factors that would better explain the observed variations in outcomes and costs. Either way, these data advance what is known about adult drug courts and the 10 Key Components.

The aim of question #3 is to examine the correlations between the drug court practices within the 10 Key Components described in this paper and program outcomes. These outcomes include graduation rate, program investment costs and outcome costs related to participant criminal justice recidivism. There are three sub-questions related to question #3.

3a. What drug court practices impact program graduation rate?

3b. What drug court practices impact program investment costs?

3c. What drug court practices impact outcome costs associated with criminal justice recidivism?

Can we determine if one practice is really preferable to another? The answers to the above questions will help researchers, policymakers and program staff to better understand how drug court program practices impact outcomes and cost and if some practices lead to better outcomes than others.

METHODS

Between 2000 and 2006, NPC Research conducted over 30 evaluations of adult drug court program operations. Eighteen of these were chosen to be highlighted in the paper for the following reasons. The evaluations included detailed process evaluations of adult drug court program operations and had at least some accompanying outcome data. All process evaluations used the same basic methodology and were designed to assess whether and to what extent the drug court programs had been implemented in accordance with the 10 Key Components. The drug courts represented diverse geographic areas including Oregon, California, Maryland, Michigan, and Guam (see Table 1 for brief descriptions of participating courts).

Participation of the drug court programs in the process evaluations was voluntary. These courts either directly contracted with NPC Research for evaluation services as part of their own quality improvement initiatives, or collaborated with NPC Research as part of a larger state or federal grant initiative.

Table 1 contains a list of the drug court programs included in these analyses, their location, and a brief description of the specific program.

Table 1. Summary of Participating Courts (n=18)

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
California	El Monte	Carey, Finigan, Waller, Lucas, & Crumpton (2005). Carey, Pukstas, & Waller (2008).	The El Monte Drug Court, located in Los Angeles County, California, was implemented in July 1994. It has a capacity of approximately 160 participants. The program accepts offenders both pre- and post-plea and targets both misdemeanor and felony drug-related charges. Participants who successfully complete the program will have their charges dismissed and/or expunged for the case that led them to drug court and avoid jail and probation time for that case. The participant population is predominately male (75%) and Latino (68%) and has an average age of 32 years. The main drug of choice for program participants is cocaine (49%) followed by methamphetamine (33%).
California	San Joaquin	Carey, Finigan, Waller, Lucas, & Crumpton (2005). Carey, Pukstas, & Waller (2008)	The San Joaquin Drug Court, located in San Joaquin County, California, was implemented in July 1995. It has a capacity of approximately 90 participants. The program accepts offenders post-conviction and targets both misdemeanor and felony drug-related charges. Participants who successfully complete the program do not have their charges expunged for the case that led them to drug court but do avoid jail and probation time for that case. The majority of the participant population is male (61%) and ethnically diverse including white (41%), African American (31%) and Latino (24%). The average participant age is 36 years. The main drug of choice for program participants is cocaine (29%) followed closely by methamphetamine (25%) the rest evenly split between marijuana, heroin and alcohol.

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
California	Santa Anna	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The Santa Ana Drug Court, located in Los Angeles County, California, was implemented in March 1995. It has a capacity of approximately 200 participants. The program accepts offenders post-plea (with a suspended sentence) and targets felony drug-related charges, although non-drug-related charges are also permitted. Participants who successfully complete the program will have their charges dismissed for the case that led them to drug court and avoid jail and probation time for that case. The participant population is predominately male (71%) and is split proportionally between Latino (45%) and White (43%). Participants have an average age of 32 years. The main drug of choice for program participants is methamphetamine (38%) followed by cocaine (26%) and heroin (26%).
California	Monterey	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The Monterey Drug Court, located in Monterey County, California, was implemented in April 1995. It has a capacity of approximately 150 participants. The program accepts offenders post-plea with a deferred entry of judgment and targets both misdemeanor and felony drug-related charges. Participants who successfully complete the program will have their charges dismissed for the case that led them to drug court and avoid jail, probation or prison time for that case. The participant population is predominately male (69%) and is split fairly evenly between Latino (41%) and White (37%) with an average age of 34 years. The main drug of choice for program participants is cocaine (30%) followed by methamphetamine (24%).
California	Stanislaus	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The Stanislaus Drug Court, located in Stanislaus County, California, was implemented in July 1995. It has a capacity of approximately 90 participants. The program accepts offenders both post-plea and post-conviction and targets both misdemeanor and felony drug-related charges. The program also allows non-drug-related charges. Participants who successfully complete the program will have their charges dismissed for the case that led them to drug court and avoid probation, jail and/or prison time for that case. The participant population is predominately male (66%) and White (80%) and has an average age of 33 years. The main drug of choice for program participants is methamphetamine (76%).

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
California	Laguna Niguel	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The Laguna Niguel Drug Court, located in Orange County, California, was implemented in January 1997. It has a capacity of approximately 100 participants. The program accepts offenders both post-plea and post-conviction and targets felony drug-related charges. Participants who successfully complete the program will have their charges dismissed for the case that led them to drug court and avoid probation, jail and/or prison time for that case. The majority of the participant population is male (68%) and White (83%) with an average age of 33 years. The main drug of choice for program participants is methamphetamine (50%) followed by heroin (25%).
California	Los Angeles Central (Downtown)	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The Los Angeles Central (Downtown) Drug Court, located in Los Angeles County, California, was implemented in 1994. It has a capacity of approximately 140 participants. The program accepts offenders both pre-plea and post-plea and targets felony drug-related charges. The court will also allow some non-drug-related charges. Participants who successfully complete the program will have their charges dismissed for the case that led them to drug court and avoid probation, jail and/or prison time for that case. The participant population is predominately male (87%) and is ethnically diverse with a fairly even split between White (29%), Latino (35%) and African American (33%). The average age is 37 years. The main drug of choice for program participants is cocaine (66%).
California	Butte	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The Butte County Drug Court, located in Northern California, was implemented in 1995. It has a capacity of approximately 100 participants. The program accepts post-plea offenders only although it accepted pre-plea offenders before 2000. The program targets misdemeanor and felony drug-related charges. Participants who successfully complete the program will have their charges dismissed for the case that led them to drug court and avoid probation, jail and/or prison time for that case. The majority of participant are male (60%) and White (87%) with an average age of 35 years. The main drug of choice for program participants is methamphetamine (80%).

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
California	San Diego East	Carey, Finigan, Waller, Lucas, & Crumpton (2005).	The San Diego East Drug Court, located in San Diego County, California, was implemented in 1997. It has a capacity of approximately 100 participants. The program accepts offenders post-plea and targets both misdemeanor and felony drug-related charges. Some participants who successfully complete the program will have their charges dismissed for the case that led them to drug court although those with more serious charges may not have them dismissed. Program graduates also will serve probation in lieu of jail and avoid jail and/or prison time for that case. The participant population is a little over half male (58%) and is primarily White (89%) with an average age of 35 years. The main drug of choice for program participants is methamphetamine (74%).
Guam	Guam	Carey & Waller (2005).	The Guam Adult Drug Court, located in Hagatna, Guam, was implemented in August 2003. It has a capacity of 84 participants. The program accepts offenders post-conviction and targets felony drug-related charges. Participants who successfully complete the program will have their charges expunged for the case that led them to drug court and avoid probation, jail and/or prison time for that case. The participant population is predominately male (77%) and Chamorro (74%) with an average age of 37 years. The main drug of choice for program participants is methamphetamine (95%).
Maryland	Anne Arundel County	Crumpton, Brekhus, Weller, & Finigan (2003).	The Anne Arundel Drug Court, located in Anne Arundel County, Maryland, was implemented in October 1997. It has a capacity of 145 participants. The program accepts offenders post-plea and targets misdemeanor drug-related charges, although it will also allow non-drug-related charges. Participants who successfully complete the program will have probation in lieu of jail for that case. The participant population is predominately male (81%) and White (70%) with the non-Whites primarily African American (28%). The average participant age is 36 years. The main drug of choice for program participants is marijuana (32%) followed closely by cocaine (30%) and then heroin (22%).

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
Maryland	Harford County	Mackin, Weller, & Linhares (2007).	The Harford Adult Drug Court, located in Harford County, Maryland, was implemented in November 1997. It has a capacity of 40 participants. The program accepts offenders pre-plea and targets both misdemeanor and felony drug-related charges, although it will also allow non-drug-related charges. Participants who successfully complete the program will avoid probation, jail and/or prison time for that case. The participant population is predominately male and White (86%). The average participant age is in the early 20s, which is a much younger population than most courts. The main drugs of choice for program participants are marijuana and alcohol.
Michigan	Barry County	Marchand, Waller, & Carey (2006a).	The Barry County Drug Court, located in Barry County, Michigan, was implemented in May 2000. It has a capacity of approximately 65 participants. The program accepts offenders post-plea and targets felony drug-related charges. Participants who successfully complete the program have their charges dropped or reduced for the case that led them to drug court and avoid serving probation, jail and/or prison time for that case. The participant population is primarily male (74%) and White (96%). The average age is 35 years. The main drug of choice for program participants is alcohol (60%) followed by marijuana (14%).
Michigan	Kalamazoo County	Marchand, Waller, & Carey (2006b).	The Kalamazoo County Drug Court, located in Barry County, Michigan, is a gender-specific drug court with separate judges for the men and the women. The women's program began in June 1992 and the men's in 1997. It has a capacity of approximately 75 participants. The program accepts offenders post-plea and targets felony drug-related charges. Some (though not all) participants who successfully complete the program have their case that led them to drug court expunged and avoid serving probation, jail and/or prison time for that case. The participant population is primarily male (69%) and White (68%). The average age is 32 years. The main drugs of choice for program participants are marijuana (33%), alcohol (26%) and cocaine (14%).

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
Oregon	Malheur	Carey, Waller, & Marchand (2005).	The Malheur "S.A.F.E." Drug Court, located in Malheur County, Oregon, was implemented in January 2001. It is a gender-specific court that has separate judges, case managers and treatment providers for men and women. It has a capacity of approximately 40 participants. The program accepts offenders post-conviction and targets both misdemeanor and felony drug-related charges, although some non-drug-related charges are allowed. Participants who successfully complete the program may have some charges dismissed for the case that led them to drug court and will serve reduced probation and jail sentences. The participant population is 64% male and is primarily White (67%) with most of the rest made up of Latino (28%). The average age is 32 years. The main drug of choice for program participants is split between methamphetamine (51%) and alcohol (41%).
Oregon	Multnomah County	Carey & Finigan (2003).	The Portland "STOP" Court, located in Multnomah County, Oregon, was implemented in August 1991 and is the second oldest drug court in the nation. It has a capacity of approximately 500 participants but has risen as high as 1200 participant in one year. The program currently accepts offenders only post-plea. It targets both misdemeanor and felony drug-related charges. Participants who successfully complete the program have their charges dismissed; case expunged; and they avoid probation, jail and prison sentences. The participant population is 76% male and is primarily White (74%) with an average age is 34 years. The main drugs of choice for program participants are methamphetamine (32%) followed by marijuana (19%) and cocaine (17%).
Oregon	Marion	Carey, Weller, & Roth (2003).	The Marion County Drug Court, located in Marion County, Oregon, was implemented in April 2000. It has a capacity of approximately 38 participants. The program accepts offenders both pre- and post-plea and targets felony drug-related charges, although some non-drug-related charges are allowed. Participants who successfully complete the program have their charges dismissed for the case that led them to drug court and avoid serving probation, jail and/or prison time. The participant population is evenly split between males and females (52% male) and is primarily White (84%) with an average age of 30 years. The main drugs of choice for program participants are methamphetamine (62%) followed by marijuana (25%).

Location	Drug Court	Evaluation Report	Program Description (At the time of NPC's Evaluation)
Oregon	Clackamas	Carey, Weller, & Heiser (2003).	The Clackamas Adult Drug Court, located in Clackamas County, Oregon, was implemented in January 2000. It has a capacity of a little over 50 participants. The program accepts offenders post-conviction and targets both misdemeanor and felony drug-related charges, although some non-drug-related charges are allowed if there is a significant drug use history. Participants who successfully complete the program have their charges dismissed for the case that led to drug court and avoid serving probation, jail and/or prison time for that case. The participant population is 55% male and is predominantly White (97%) with an average age of 30 years. The main drugs of choice for program participants are methamphetamine (62%) followed by heroin (14%).

Data Collection

The data used in these analyses were collected as a part of process, outcome and cost evaluations performed by NPC Research. A brief description of the process, outcome and cost data collection methodology is summarized below. Detailed descriptions of the methodology and data collection performed for each drug court's full evaluation can be found in the program site-specific reports (listed in Table 1, above) at www.npcresearch.com. Complete citations for these reports are included in the reference section of this document.

PROCESS DATA COLLECTION

For the process evaluations at the sites listed above, the team relied on a multi-method approach. This included a combination of site visit observations, key informant interviews, focus groups, and document reviews. This allowed the team greater access to program data than would have been available through using any single approach. These methods were conducted in a consistent way at each site in order to give us comparable data.

Site visits included opportunities to observe drug court sessions and drug court team meetings. These observations provided the evaluation team with first-hand knowledge of the structure, procedures, and routines of the drug courts. One of the main benefits of these visits was the chance to make face-to-face contact with those individuals who were providing potentially sensitive information.

Key informant interviews always included the drug court coordinator, drug court judge, district attorney, public defender, treatment providers, and probation and law enforcement representatives. Frequently representatives from other agencies involved in the drug court program were also included. A standardized drug court typology interview guide was developed to provide a consistent method for collecting structure and process information from drug courts. The topics for this typology interview guide were based on the 10 Key Components (NADCP, 1997) and were chosen from three main sources: the evaluation team's extensive experience with drug courts, the American University Drug Court Survey, and a paper by Longshore et al. (2001), describing a conceptual framework for drug courts. The typology

interview guide[1] covers a large number of areas including specific drug court characteristics, structure, processes, and organization. In particular, the guide explores several characteristics that may be considered 'best practices' of a drug court model with a focus on the 10 Key Components (NADCP, 1997).

Focus groups were held with the drug court participants in most sites. These focus groups gave participants opportunities to express their perceptions and share their experiences of the drug court process with the evaluation team. Feedback from drug court participants also helped inform whether drug court participants' due process rights had been protected.

The evaluation team obtained documents from the drug court programs detailing the programs' history, operations, and practices. These documents may include, but need not be limited to, written program descriptions, quarterly or annual reports, Memoranda of Understanding with collaborating agencies, and training materials for participating agency staff.

OUTCOME DATA COLLECTION

For each drug court, NPC Research identified program samples of participants who enrolled in the adult drug court programs over a specified time period (generally 2 years). These were generally selected using the drug court program database. NPC also identified a sample of individuals eligible for drug court but who did not participate[2] and received traditional court processing. Both groups were examined through existing administrative databases for a period of at least 24 months post drug court entry. When databases were not available, data were gathered from paper files maintained by the program and other agencies involved with the offender population. The evaluation team utilized county and statewide data sources on criminal activity and treatment utilization to determine how drug court participants and the comparison groups differed in court processing and subsequent re-arrests.

COST DATA COLLECTION

Transaction and Institutional Cost Analysis

NPC Research performed the cost studies in these drug court programs using an approach called Transactional and Institutional Cost Analysis (TICA) (Crumpton, Carey, & Finigan, 2004). The TICA approach views an individual's interaction with publicly funded agencies as a set of transactions in which the individual utilizes resources contributed from multiple agencies. Transactions are those points within a system where resources are consumed and/or change hands. In the case of drug courts, when a drug court participant appears in court or has a drug test, resources such as judge time, public defender time, court facilities, and urine cups are used. Court appearances and drug tests are transactions. In addition, the TICA approach recognizes that these transactions take place within multiple organizations and institutions that work together to create the program of interest. These organizations and institutions contribute to the cost of each transaction that occurs for program participants. TICA is an intuitively appropriate approach to conducting costs assessment in an environment such as a drug court, which involves complex interactions among multiple taxpayer-funded organizations.

In order to maximize the study's benefit to policymakers, a "cost-to-taxpayer" approach was used in these evaluations. This focus helps define which cost data should be collected (costs and

[1] NPC's Drug Court Typology Interview Guide is available at http://www.npcresearch.com/materials.php.
[2] The comparison group included those who were never offered drug court, those who were unable to participate because the drug court was at capacity, and those who refused drug court.

avoided costs involving public funds) and which cost data should be omitted from the analyses (e.g., costs to the individual participating in the program). In this approach, any criminal justice related cost incurred by the drug court or comparison group participant that directly impacts a citizen (either through tax-related expenditures or the results of being a victim of a crime perpetrated by a substance abuser) is used in the calculations.

Cost data were collected through interviews with drug court and other criminal justice agency staff including agency financial officers and county auditing staff to determine direct and indirect costs associated with each transaction. Program staff were interviewed on direct time spent on specific transactions (such as drug court sessions) as well as time spent in support of those transactions. County and agency budgets were examined for salaries as well as benefit, support and overhead rates.

Process Data Analysis

The resulting 18 process evaluations were compiled for a cross-sectional analysis. Evaluation findings were reviewed to identify common metrics used across the studies. In some cases, questions from an earlier study may have been changed over time. In other cases, new questions may have been developed that were not asked in an earlier study. In these situations, program staff at each site were subsequently contacted to help fill in any gaps of any missing information. Once completed, the process data were summarized across the sites. The 10 Key Components served as the framework for organizing the findings. Based on interviews with the drug court staff and experience in multiple drug court evaluations, the research team reviewed and assigned each process data element (each drug court practice) to each of the 10 components. The end product of this effort was to have all 10 Key Components operationalized by a list of practices that the drug courts actually performed. The results were reviewed by three of NPC's researchers for construct validity and then finalized.

The results of this analysis are presented in tables within each of the 10 Key Components in the results section of this report. These results provide an answer to policy questions #1: How do drug courts operationalize the 10 Key Components? What practices do they use?

To answer policy question #2 (Which practices are consistently implemented and which practices have considerable variation across drug court sites?) we focused on the drug court practices where there was sufficient variation among sites to fruitfully engage in an analysis of difference. We decided to establish a rule that there would be sufficient variation among sites if at least 25% of the sites differed from other sites in the practice. This was a rule that assured that there was variation in at least three or four sites. Any fewer than that was deemed too idiosyncratic. These practices are highlighted in the key components tables in the results section of this report. The variations in practice across is also described and discussed.

Outcome Data Analysis

To address policy question #3 (How do the practices implemented in various drug courts relate to outcomes?) those program practices that showed sufficient variation were examined in relation to graduation rate, program investment costs, and outcome costs. All 18 drug court programs chosen for this analysis had data on graduation rate and therefore could be included in the analyses for question #3a (How do drug court practices impact graduation rate?). Cost data were available on 15 of the 18 drug court sites; therefore, the analyses for policy questions #3b and #3c (the impact of drug court practices on investment costs and outcome costs) were performed on those 15 sites only.

In a small number of cases, missing data dropped the number of courts in the analyses to as low as 10. The 25% rule also served in these cases so that we would have at least three sites that used an alternative practice compared to the others. We felt that below this level the data became idiosyncratic to a specific court or two.

The graduation rate was calculated on cohorts of drug court participants at each site who had enrolled in the program over a 1- or 2-year period and who had all exited the program (either successfully or unsuccessfully) at the time the data were collected. The graduation rate is the number of participants who successfully completed the program divided by the total number enrolled. The graduation rate was available in all 18 sites. Graduation rate in these sites ranged from 25% to 82%.

Investment costs for the evaluations conducted at these drug courts was defined as the total cost for the drug court eligible case for both drug court participants and the comparison group. Investment costs for drug court participants include the cost of the drug court program (treatment, court sessions, drug tests, etc.) as well as the costs of any probation or incarceration served as a result of that case, such as sentences served after termination from the program. Similarly, the cost of traditional court processing for the comparison group included court costs as well as probation and incarceration served as a result of the drug court eligible case. In order to account for differences in cost of living and other similar differences in context between different drug court sites, investment costs used as a dependent variable in these analyses were calculated as the percent difference in investment cost for the drug court participants and the comparison group. A higher percentage indicates higher investment costs for drug court participants. Cost data were available in 15 of the 18 sites used in these analyses. The percent difference in investment for these sites ranged from 24% (it cost less for the drug court program) to 66% (it cost substantially more for the drug court program).

Outcome costs were costs incurred due to criminal justice recidivism for both the drug court participants and comparison group members after drug court entry (or an equivalent date calculated for the comparison group). Recidivism costs include re-arrests, new court cases, probation time served, and incarceration (jail and prison). Outcome costs, for the purposes of these analyses in order to normalize the values across drug court sites, were calculated as the percent improvement in outcome costs for the drug court group in relation to the comparison group.[3] A higher percentage indicates lower outcome costs (or higher cost savings) for drug court participants. Outcome cost data were available on 15 of the 18 sites. The percent improvement in outcome costs ranged from 44% (participants had higher recidivism costs) to 62% (participants had substantially lower recidivism costs).

For the outcome analyses, we considered the use of a mixed model approach with a nested design using court/site as a grouping variable with data at the client level. However, it soon became clear that for the cost data (central to our analysis), we actually had only 15 sites with complete enough data and occasional missing data on some analyses reduced that to 10 sites. At that level (with the main analysis at the site level and the potential for a single site to introduce too much idiosyncrasy) we felt these data could lend themselves only to t-tests that served more as investigative analyses

[3] Actual costs (or costs saved) across sites can vary due to factors such as cost-of-living in the particular area, therefore, we felt a more appropriate direct comparison would be the percent difference in costs between the drug court and the comparison group.

that will provide direction for a larger study (or sets of studies) when a greater number of sites with complete data are available.[4]

For these analyses, the vast majority of the data on program practices from the process evaluations were coded as yes/no questions. For example, "the treatment provider regularly attends drug court sessions." Those practices with sufficient variation across sites were measured against the program outcome data. In a few cases there was a range of data (such as the number of days between arrest and program entry) that were not appropriate for the yes/no format. In these cases the actual numbers were used. In determining whether there was enough variation in sites on specific items to warrant further examination, we accepted the item as having variation among sites if 25% or more (up to 50%) of sites had a different approach than the others. We did this because, with some analyses having only 10 sites and most having 13, we wanted the variation to be present in at least 3 sites, rather than just 1 or 2 (1 or 2 is just idiosyncrasy).

T-tests were run on the answer (yes/no) for each question on graduation rate, the percent difference in investment and the percent improvement in outcome costs. In cases where process data were a continuous variable, t-tests were run using cut-off points. The difference in the graduation rate and investment and outcome cost means for "yes versus no" were reported if this difference was at least 2 times greater for one condition over the other or if the differences were statistically significant at least at a "trend" level ($p < 0.15$).

[4] We feel that such a larger study will be possible for us in the next year or so when the results from a large number of additional evaluations using our process and cost evaluation methodology will be available. This will raise the number of available sites to 30 or so.

RESULTS

Findings are presented in three ways. First, to answer policy questions #1 (How do drug courts operationalize the 10 Key Components? What practices do they use?) each of the 10 Key Components is defined and described and then operationalized with a list of drug court practices that have been observed in the field as a part of NPC's program evaluations. This is the first attempt that we are aware of to operationalize the 10 Key Components using actual drug court practices. These operational definitions serve as the framework for the second analysis.

Second, to answer policy questions #2 (Which practices are consistently implemented and which practices have considerable variation across drug court sites?) the implementation of each component is analyzed for its variability across the courts. We summarize the portion of that component that is consistently implemented across the drug court sample and then highlight areas where drug court operations significantly differ. We defined variability as occurring when greater than 25% of the courts have an alternative approach over the majority (or when less than 75% are performing the same practice). This percentage was used as it represented the minimum number of courts we needed to have (at least three sites) that differed on this approach from the majority.

Third, to answer policy question #3 (How do the practices implemented in various drug courts relate to outcomes?), those practices that demonstrate variability across the drug court sites are then presented along with their impact on program outcomes including graduation rate, investment costs, and outcome costs due to criminal justice recidivism.

KEY COMPONENT #1: DRUG COURTS INTEGRATE ALCOHOL AND OTHER DRUG TREATMENT SERVICES WITH JUSTICE SYSTEM CASE PROCESSING.

Description and Operational Definition

The focus of this component is on the integration of treatment services with traditional case processing. Process data that illustrate an adherence to this component include a description of the treatment provider and its role in the drug court system. These consist of the following:

- Is there a single treatment provider or multiple providers? While this is partly a reflection on the size of the service area, the number of providers also determines the lines of communication that must be established. Generally, it is easier to develop a closer connection with one agency as compared to several.
- Is there a central intake being used to manage assessments and referrals?
- Are drug courts employing case managers to assist with integration of treatment and the justice system?
- What is the role of the treatment provider on the drug court team? Is a treatment representative included as part of the team? Is a treatment provider present on an oversight or drug court steering committee? Do treatment representatives regularly attend drug court meetings where participant progress is discussed? Does a treatment provider attend drug court sessions?

- What are the methods and consistency by which treatment providers are communicating with the court system? Is there regular reporting or only in response to a particular incident? Is communication formally written or verbal?
- What is the extent of the services offered as part of drug court? What types are services are available? Would these include individual as well as group counseling? Is attendance of a support group required? These would include self-help groups such as Alcoholics Anonymous or Narcotics Anonymous. What is the availability of wrap-around services? Successful integration should result in extensive service provision to the drug clients.

The practices described in this last paragraph are also related to Key Component #4 and are discussed under that component as well.

Analysis of Implementation

Table 2 lists common drug court practices consistent with the first key component. The percentages reveal the level of agreement or consistency in implementation among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 2. Key Component #1 Operational Definition: Drug Court Practices

Drug Court Practices for KC #1: Drug Courts integrate alcohol and other drug treatment services with justice system case processing [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice]	**# Courts**	**% Yes***	**% No***
The drug court uses a central intake for treatment.	18	100%	0%
Drug Court participants are offered group counseling.	18	100%	0%
Drug Court participants are required to participate in support groups (e.g., AA, NA).	18	94%	6%
At least one treatment representative is a member of the drug court team.	18	89%	11%
The treatment representative is expected to attend all drug court team meetings (staffings).	17	88%	12%
Drug Court has established formal partnerships with community agencies.	18	83%	17%
Drug Court participants are offered individual counseling.	18	78%	22%
The treatment provider regularly provides the court written progress reports.	14	78%	22%
At least one treatment representative is a member of the drug court steering committee/policy committee.	14	78%	22%
The treatment representative is expected to attend all drug court sessions.	**18**	**67%**	**33%**
Drug Court has more than one treatment agency available to participants.	**18**	**27%**	**72%**

*Valid percents are reported.

Consistencies in Practice

The majority of the practices listed in Table 2 were consistently employed across the drug court programs in our sample with only a small number (usually only one or two programs) that reported differences on any specific practice. In general, these drug courts were consistent in using a central intake for treatment, offering group and individual treatment sessions, requiring participants to attend self-help groups, including a treatment representative on the drug court team and expecting treatment to attend team meetings and provide written participant progress reports to the court. These drug courts also generally included a treatment representative on their steering or policy committee. Because of the consistency in practice across sites, it was not possible to determine if these particular practices have a varying impact on outcomes.

Variations in Practice

However, two practices revealed some variation across programs indicating differences in decision-making that may have implications for quality of care and outcomes:

- **Drug Court has more than one treatment agency available to participants**. Just over one-quarter (27%) of the drug courts worked directly with more than one treatment agency. Is it more important to have multiple treatment agencies directly available to the court or to have a single treatment agency that coordinates treatment with the court?
- **Attendance of treatment at drug court sessions**: A majority (67%) did expect the treatment representatives to regularly attend court sessions. However, other courts expect only periodic appearances and some do not expect treatment members to attend these sessions at all. Does it matter if treatment representatives regularly attend drug court sessions?

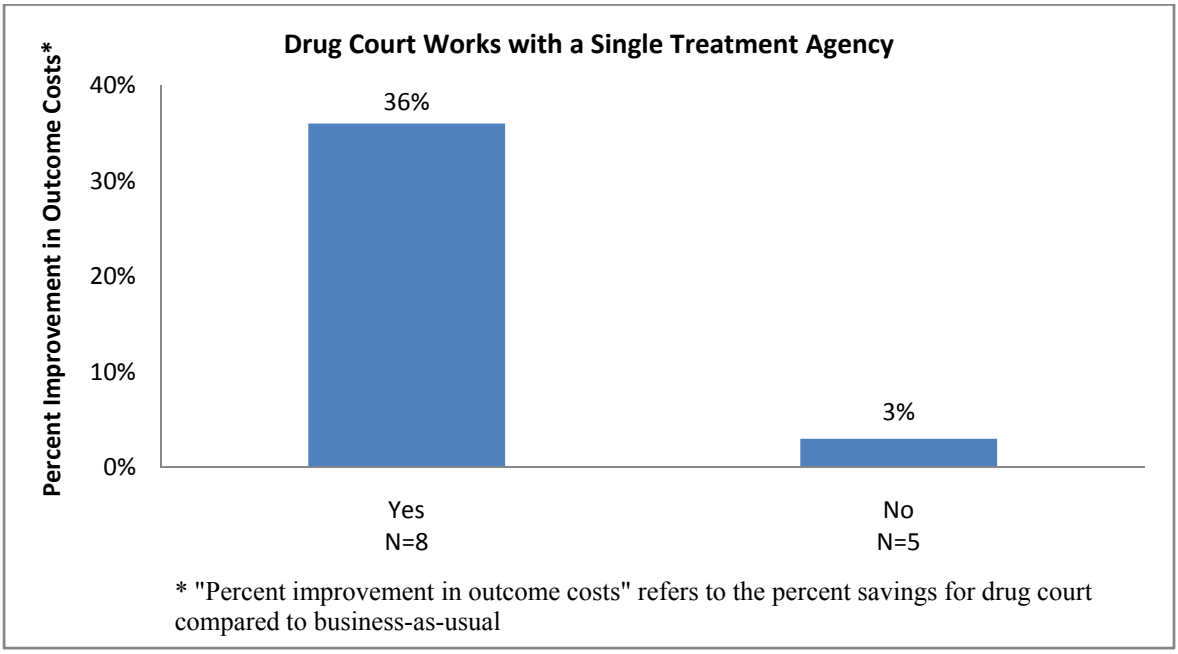
Practices in Relation to Outcomes

The use of the above two practices (single or multiple treatment providers and treatment attendance at court sessions) in relation to outcomes including graduation rate, percent increase in investment cost and percent increase in cost savings revealed the following results.[5]

Using multiple treatment agencies versus a single agency. Although some drug courts believe that having multiple treatment providers available to participants allows the participants to have access to treatment that is more specific to their needs, drug courts that used multiple treatment agencies showed no improvement in graduation rate or investment costs compared with those courts that used a single treatment provider. In fact, courts with a single treatment agency had slightly better graduation rates (54% vs. 44%) and significantly better outcome costs. There was no difference in investment costs. Figure 1 illustrates the difference in outcome costs between those courts with a single provider and those with multiple providers.

[5] Recall that the percent difference in cost between the drug court group and comparison group for each program is used in order to normalize the values across drug court sites to account for cost differences due to other factors besides the drug court practices such as cost-of-living.

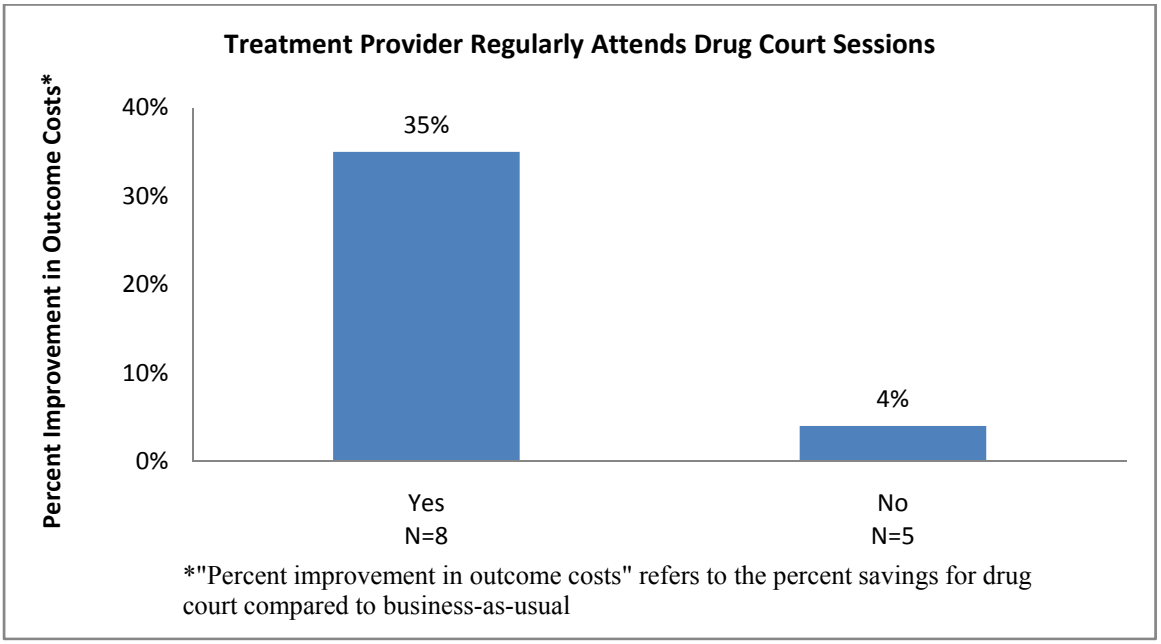
Figure 1. Courts That Use a Single Treatment Agency Had Greater Outcome Cost Savings



The percent improvement in outcome costs is the percent difference in costs for the drug court outcomes as compared to its comparison group. For instance, in the above figure, the eight courts that have a single treatment agency average a 36% lower outcome cost to the criminal justice system compared to their business-as-usual comparison group (a 36% savings compared to business-as-usual) while the five programs that did not have a single treatment provider had only 3% lower costs compared to their business-as-usual comparison group.

Including a treatment provider in drug court sessions. Drug courts that included the treatment provider at drug court sessions showed no effect in graduation rate or investment costs. However, this practice did show a substantial and statistically significant ($p = .043$) effect on outcome costs. Of the 13 courts that had outcome cost data available, 8 required regular attendance of a representative of the treatment provider at the drug court session. These 8 averaged a 35% improvement in lowering outcome costs (savings) relative to their comparison group. The 5 that did not require regular attendance showed only a 4% improvement over their comparison group. This indicates that including a treatment provider at drug court sessions results in no additional investment while gaining the benefit of lower recidivism and cost savings for drug court participation. Figure 1 illustrates the impact on outcome costs.

Figure 2. Courts That Require a Treatment Representative at Drug Court Sessions Had Greater Outcome Cost Savings



Summary and Discussion of Key Component #1

There was not a lot of variability among these drug courts in the large number of practices that fell under this component. In general, the drug courts in this study were consistent in using a central intake for treatment, offering group and individual treatment sessions, requiring participants to attend self-help groups, including a treatment representative on the drug court team and expecting treatment to attend team meetings and provide written participant progress reports to the court. The primary areas of variability were whether the treatment provider attends the drug court sessions and the number of treatment agencies available to program participants. Drug courts that used a single treatment provider and that included a treatment representative at court sessions had greater outcome cost savings compared to drug courts that did not do these things.

Table 3 provides a summary of the practices identified under Key Component #1 that had sufficient variation between courts (No more than 75% of the courts used the same practice.) and whether those practices were associated (negatively or positively) with outcomes and costs.

Table 3. Key Component #1 – Summary Table of Practices Related to Outcomes

Key Component #1 Practices	Investment Cost	Graduation Rate	Outcome Cost
Drug Court has a single treatment provider (that can make referrals to other treatment as needed).	No Effect	No Effect	**Positive Effect (Savings)****
The treatment representative is expected to attend all drug court sessions.	No Effect	No Effect	**Positive Effect (Savings)****

**p < .05 (statistically significant); *p < .15 (trend)

A single treatment provider was associated with a significant reduction in outcome costs (improved cost savings). According to drug court staff, a single treatment agency (that performs central intake and may refer to other providers) tends to lead to better communication between the court and treatment and more understanding and commitment to the drug court model by the treatment provider. In addition, NPC has observed that in drug courts with a single treatment agency, the judge and the rest of the drug court team tend to learn more from the treatment provider about addiction and treatment. Multiple treatment agencies can be more difficult to coordinate and are also less likely to adjust their services to best fit the special needs of drug court participants who have legal issues as well as substance abuse issues. Further, courts with a single treatment provider may be able to negotiate a contract that allows for lower rates for their drug court participants.

Having a treatment provider at drug court sessions assists communication with the judge and the rest of the drug court team; the provider is immediately available to answer questions brought up between the participant and the team. Although much of this communication can occur at team meetings, this does not allow for a dialogue between judge, participant and treatment provider.

KEY COMPONENT #2: USING A NON-ADVERSARIAL APPROACH, PROSECUTION AND DEFENSE COUNSEL PROMOTE PUBLIC SAFETY WHILE PROTECTING PARTICIPANTS' DUE PROCESS RIGHTS.

Description and Operational Definition

This component is concerned with the balance of three important areas. The first is the nature of the relationship between the prosecution and defense counsel in drug court. Unlike traditional case processing, drug court case processing favors a non-adversarial approach. The second focus area is that drug court programs remain responsible for promoting public safety. The third focus area is the protection of the participants' due process rights.

Process data related to this key component include information about the roles of both the prosecution and defense attorneys. Do they behave in their traditional roles within or outside of court sessions? Do both members regularly attend drug court sessions, team meetings, steering or advisory meetings?

Regarding public safety, what types of cases are referred to drug court? Does the drug court permit non-drug-related cases? Do they allow misdemeanor or felony charges? What happens if the participant fails to complete the program?

Lastly, this component is concerned with due process rights. What are the incentives to the client to join a drug court program? Is the client being offered alternatives? Does the client have to enter a plea before or after entry to drug court?

Analysis of Implementation

Table 4 describes common practices that fall within the second key component. The percentages reveal the level of variation in practice among the drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 4. Key Component #2 Operational Definition: Drug Court Practices

Practices for Key Component #2: **Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.** [Note: Bolded practices are those with greater variation – no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
Drug court uses a reduction or the elimination of potential jail time as an incentive.	18	100.0%	0%
The prosecution/defense present a united front to clients in court.	16	85.7%	14.3%
The defense attorney is expected to attend all drug court sessions.	17	82.3%	17.7%
The defense attorney is expected to attend drug court team meetings (staffings).	15	**73.3%**	**26.7%**
Participants are admitted into the program only post-plea or post-conviction.	18	**66.7%**	**33.3%**
The prosecution is expected to attend all drug court team meetings (staffings).	14	**64.3%**	**35.7%**
The prosecution is expected to attend all drug court sessions.	18	**61.1%**	**38.9%**
Drug court allows non-drug charges.	18	**55.5%**	**44.5%**
The drug court allows both felonies and misdemeanors (rather than targeting felony charges).	16	**52.9%**	**47.1%**
Unsuccessful participants receive their original sentence.	17	**29.4%**	**70.6%**

*Valid percents are reported.

Consistencies in Practice: The drug courts showed quite a bit more variation in practices within Key Component #2 than Key Component #1. However, there were a few similarities across courts. In most programs the prosecution and defense counsel presented a united front to participants during drug court sessions, and the defense attorney was expected to attend drug court sessions. All programs included a reduction or elimination of jail time served for participants who graduate from the program.

Variations in Practice: The majority of the practices listed under this component varied in how they were implemented across these courts.

- **Level of participation from the prosecution/public defender –** Several drug courts expected only occasional or no appearances in court and minimal to no attendance at team meetings while others expect regular attendance at one or both activities. Does it matter if the prosecution/public defender regularly participates in team meetings or attends the drug court sessions?

- **Participants are admitted into the program pre- or post-plea**: Many states are moving away from pre-pleas both out of public safety concerns and because some drug court funding streams have required that programs be post-plea; however, in this sample there were still several courts that admitted participants either pre-plea or both post-plea and pre-plea (33%). Does this have any impact on program outcomes?
- **Allowance of felony or misdemeanor charges and non-drug-related charges –** About half the courts allowed both felony and misdemeanor charges while the other half generally served felons (and one court allowed only misdemeanants). The eligibility considerations may have an influence on program outcomes. Courts were divided on whether they would permit program entry for participants with non-drug-related charges. Most courts that allowed non-drug-related charges only did so if the charge was commonly associated with drug abuse issues (e.g., forged checks) or if the offender had a significant drug offense history.
- **Imposition of original sentence –** Upon program termination, a little over one-quarter of the drug courts imposed the client's original sentence while others determined the sentence at the time of termination. Does knowing the sentence serve as an incentive for participants to graduate? Does determining the sentence in advance prevent more punitive sentences when participants fail?

Practices in Relation to Outcomes

Level of participation from the prosecution and defense attorneys:

Prosecution at team meetings. The attendance of the drug court prosecutor at team meetings where participant progress is discussed was related to higher graduation rate. Courts that required prosecutor attendance at these meetings had an average graduation rate of 58% versus 43% in courts where attendance occurred only occasionally or not at all. Although attendance at these meetings showed no effect on investment costs, outcome costs were substantially improved (see Figure 3).

Figure 3. Drug Courts Where a Prosecution Representative Attended Team Meetings Had Greater Improvement in Outcome Costs (Cost Savings)

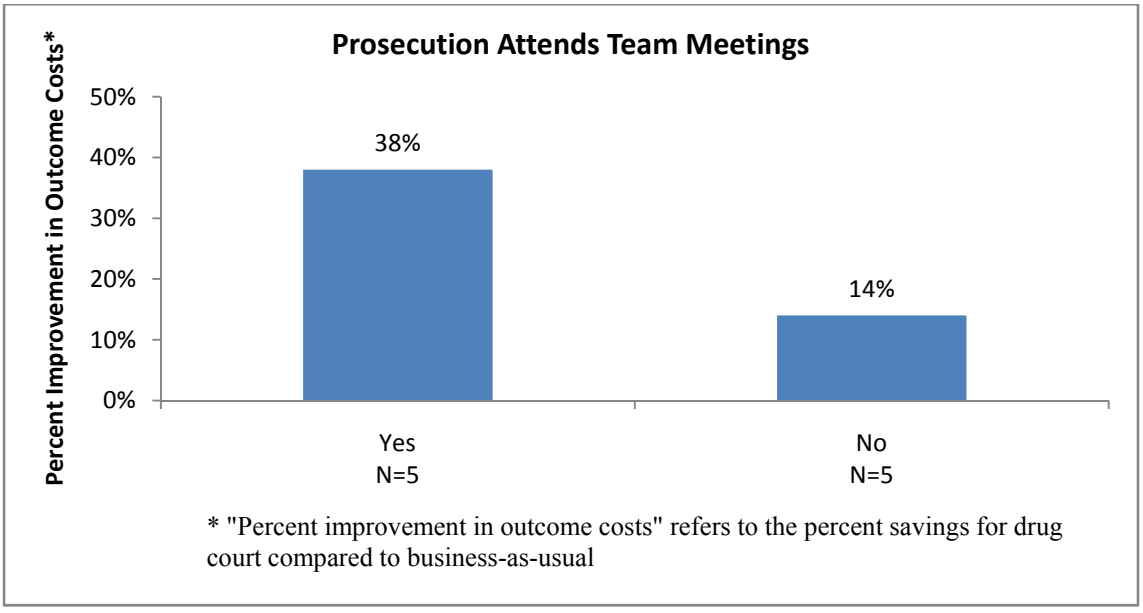
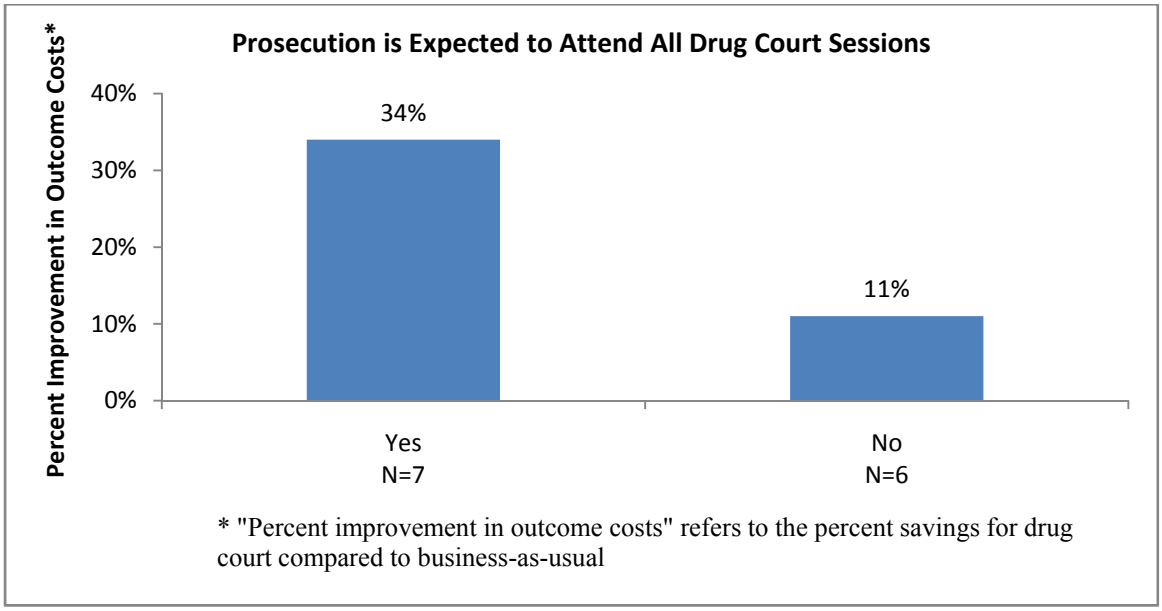


Figure 3 shows that of the 10 courts that had both cost and practice data available, 5 did not require regular attendance of a representative of the prosecutor's office at the drug court team meetings. Those that did require attendance showed a 38% improvement in lowering outcome costs relative to their comparison group. The five that did not demand regular attendance showed only a 14% improvement over their comparison group. Although this difference was not statistically significant, the savings was nearly 3 times higher in courts where prosecutors attended team meetings.

Prosecution at drug court sessions. Although there was no difference in investment costs for drug courts where the prosecutor attended drug court sessions, graduation rates were higher (55% vs. 46%) and there was substantial improvement in participant outcome costs compared to courts where the prosecutor did not attend (see Figure 4).

Figure 4. Drug Courts Where Prosecution is Expected to Attend All Court Sessions Had Greater Improvement in Outcome Costs (Cost Savings)

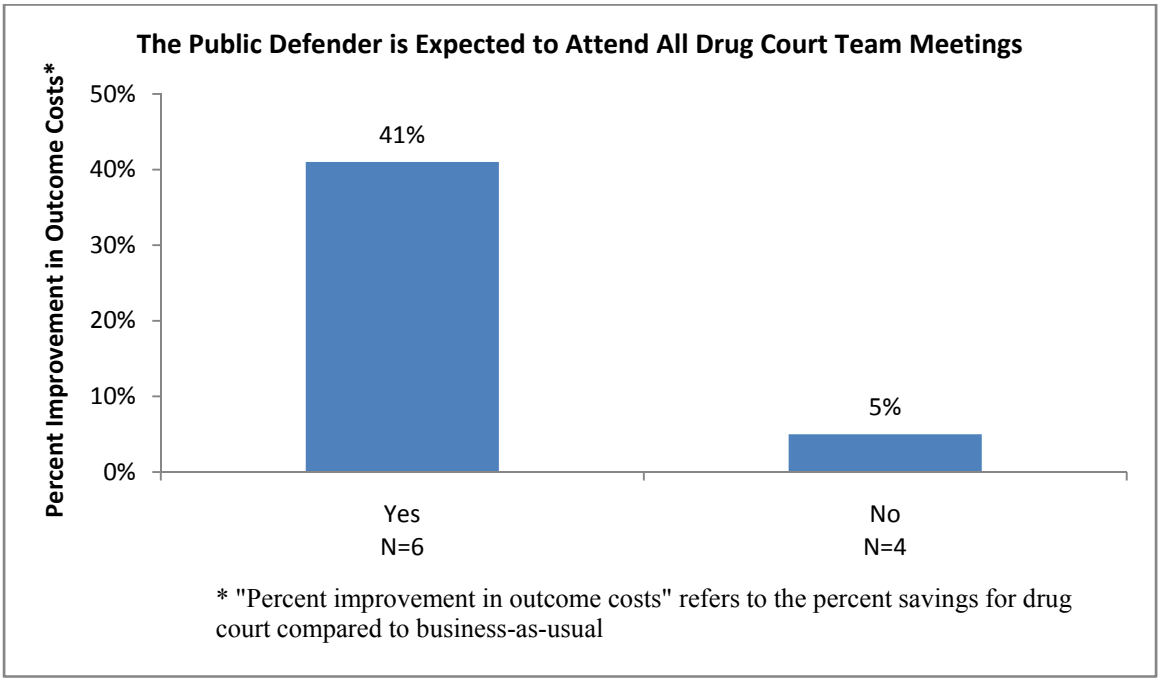


Of the 13 courts that had data available, 6 did not require regular attendance of a representative of the prosecutor's office at all drug court sessions. Those that did require prosecutor attendance showed a 34% improvement in lowering outcome costs relative to their comparison group. The 6 that did not demand regular attendance showed only an 11% improvement over their comparison group. This difference was not statistically significant (though it did show a "trend level" significance; $p < .15$), however the difference was substantial in that drug courts that expected prosecution to attend court sessions had more than 3 times greater improvement in outcome costs.

Defense attorney attendance at team meetings. Similar to the findings for the drug court prosecutor, attendance of the defense attorney at team meetings where participant progress is discussed was related to a higher graduation rate. Courts in which the defense attorney attends team meetings had an average graduation rate of 59% compared to 37% in courts where the defense attorney did not attend. This difference was statistically significant ($p < .05$).

Also similar to findings for the prosecution, drug courts where attendance of the defense attorney at team meetings did not show a difference in investment costs but did show significantly greater improvement in outcome costs savings (see Figure 5).

Figure 5. Drug Courts Where the Public Defender Was Expected to Attend All Drug Court Team Meetings Had a Greater Improvement in Outcome Costs (Cost Savings)



Of the 10 courts that had both practice and cost data available, only 4 did not expect regular attendance of a representative of the public defender's office at the team meetings. Those that did require that attendance showed a 41% improvement in lowering outcome costs relative to their comparison group. The 4 that did not expect regular attendance showed only a 5% improvement over their comparison group. This difference was statistically significant ($p < .05$).

There was not enough variation in practice between the sites to test whether including the public defender at drug court sessions has an impact on outcomes.

Participants are admitted into the program pre- or post-plea. Drug courts that allowed participants into the program only post-plea had lower graduation rates (48% vs. 58%) (although this difference was not statistically significant) and higher investment costs (32% higher investment costs than the comparison group compared to 9%). However, there was no substantive impact on outcome costs. The higher investment costs for post-plea/post-conviction programs were generally due to the need for offenders to go through the traditional court process to the point of the plea or the conviction before starting the drug court program. Therefore, the investment of the system in the drug court case is the cost of traditional court plus the cost of the program.

Allowance of non-drug-related charges. There was no relationship between these types of charge decisions and investment costs or graduation rate. However, courts that allowed non-drug-related charges had slightly better outcome costs (cost savings).

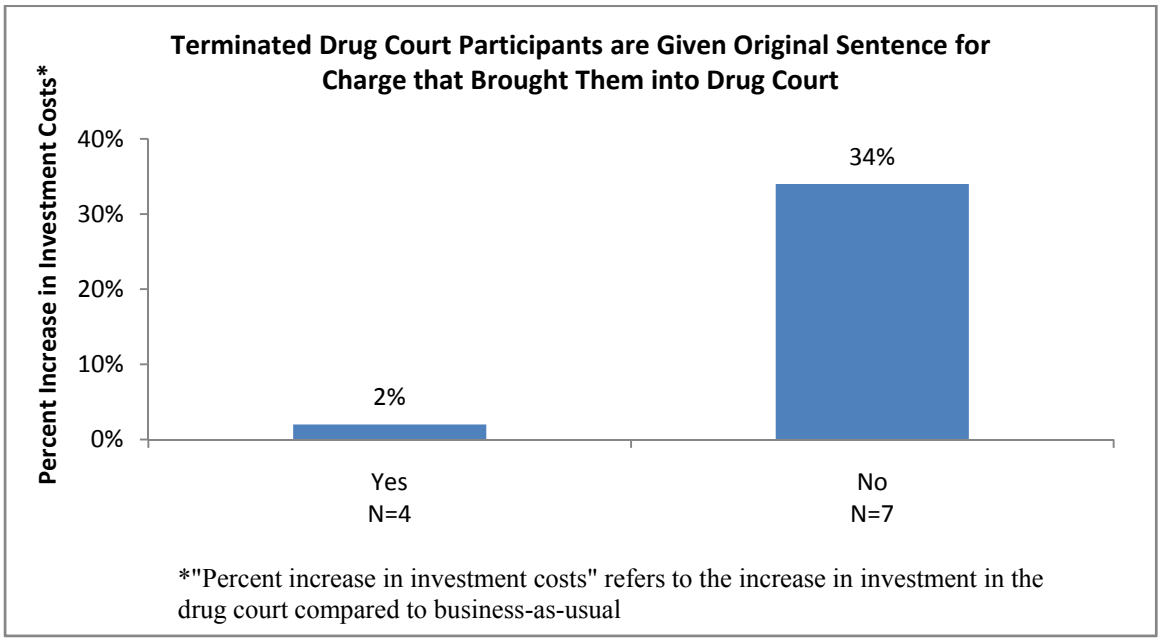
Of the 12 courts that had data available on non-drug-related charges, 6 did allow non-drug-related charges and 6 did not. Those that did showed a 29% improvement in lowering outcome costs relative to their comparison group. The 6 that did not showed an 18% improvement over their comparison group. This difference was not statistically significant.

Imposition of original sentence. Drug courts that imposed the original sentence on participants who terminated from the program had no difference in graduation rate compared to those that

determined the sentence after termination. However, courts that imposed the original sentence had significantly lower investment costs (see Figure 6) and somewhat better outcome costs. Of the 12 courts that had cost data available on this practice, 4 imposed the original sentence on unsuccessful clients and 8 did not. Those that did showed a 26% improvement in lowering outcome costs relative to their comparison group. The 8 that did not showed a 17% improvement over their comparison group. However, this difference was not significant.

Figure 6 illustrates the difference in investment costs between courts that impose the original pre-determined sentence and those that do not.

Figure 6. Drug Courts That Imposed the Original Sentence on Terminated Participants Had Lower Investment Costs Than Those That Determined the Participant Sentence After Termination



The cost of sentencing for the original charge is included in investment cost because in NPC's methodology for these studies, investment costs for the case that leads to drug court includes all transactions that are related to the original charge. Investment costs in drug courts that imposed the original (pre-determined) sentence on participants who terminate from the program had just a 2% increase in investment costs over the cost of business as usual, compared to a 34% increase for drug courts that determine the sentence at the time of termination. This difference was statistically significant ($p < .05$). It may be that the imposition of the original (pre-determined) sentence leads to shorter sentences than those determined at termination. Based on NPC's observations in several drug courts, there is some evidence that sentences determined at the time of drug court termination may be more punitive, particularly if these sentences are determined by the drug court judge rather than an outside judge.

Summary and Discussion of Key Component #2

Key Component #2 involves the role of the defense and prosecuting attorneys, public safety, and participant due process rights. Overall, there was quite a bit of variation across drug courts in how the practices that fall within this component were implemented. The few practices that were

consistent across programs included the reduction or elimination of incarceration for graduating participants, the attendance of the public defender at court sessions, and the presentation of a united front of defense and prosecuting attorney before participants. Practices that varied significantly included the attendance of attorneys at team meetings, the attendance of the prosecution at drug court sessions, the types of charges allowed into the drug court program, and sentencing practices when participants fail the program.

Key Component #2 revealed several practices that were related to program outcomes. Table 5 summarizes the practices in relation to each of the outcome variables, investment costs, graduation rate and outcome (recidivism related) costs.

Table 5. Key Component #2 Summary of Practices Related to Outcomes

Key Component #2 Practices	Investment Cost[6]	Graduation Rate	Outcome Cost
The prosecution is expected to attend all drug court team meetings (staffings).	No Effect	**Positive Effect (Higher)****	**Positive Effect (Savings)**
The prosecution is expected to attend all drug court sessions.	No Effect	**Positive Effect (Higher)**	**Positive Effect** (Savings)**
The defense attorney is expected to attend drug court team meetings (staffings).	No Effect	**Positive Effect (Higher)****	**Positive Effect* (Savings)**
Participants are admitted into the program only post-plea or post-conviction.	**Higher**	**Negative Effect (Lower)**	No Effect
Drug Court allows non-drug charges.	**Higher**	No Effect	**Positive Effect (Savings)**
Unsuccessful participants receive their original sentence.	**Lower***	No Effect	No Effect

**p < .05 (statistically significant); *p < .15 (trend)

Participation of the drug court attorneys, both prosecution and defense, in team meetings and at drug court sessions had a positive effect on graduation rate and on outcome costs. Interviews with drug court staff have pointed to the convenience of communication when all players are in the room and have also remarked that the speed of decision-making is increased. It seems reasonable, therefore, that this should lead to better participant outcomes.

Allowing participants into the program only post-plea was associated with lower graduation rates and higher investment costs (though there was no effect on outcome costs). Accepting participants post-plea and post-conviction generally means the eligible offenders go through the traditional court process before entering the program. This leads to higher system investment into the drug court eligible case than for courts that allow participants in pre-plea (offenders do not

[6] Investment costs are described as lower and higher without specifying whether these are positive or negative as higher investment costs may be worth the expense in that they result in positive outcomes including cost savings (e.g., a positive cost-benefit ratio).

complete the traditional court process first). It is possible that the relationship between post-plea participation and lower graduation rates is due to a greater length of time before post-plea participants begin the drug court program. Post-plea (and particularly post-conviction) drug court programs have a longer time between offender arrest and referral and program start. As described next, in Key Component #3, "striking while the iron is hot" is important to participant success.

Courts that allowed non-drug-related charges had higher investment costs. Drug court staff suggested that offenders with non-drug-related charges in addition to having a drug abuse issue have greater needs (and require more services) than those whose only legal issue is drug possession or closely related charges. However, courts that allowed non-drug-related charges also showed a higher percent improvement in outcome costs. If participants that have non-drug-related charges are a more criminal population, then it might be expected that a decrease in recidivism in this group would have a more significant impact on outcome costs than in groups where the relative difference in recidivism is lower.

Finally, courts that imposed the original sentence rather than determining the sentence at termination showed lower investment cost and greater improvement in outcome costs. It is possible that knowing the sentence serves as an incentive for participants to avoid failure. In NPC's cost research, we have often found that drug court participants who fail receive more incarceration time for the drug court eligible case than similar offenders who did not participate. It is possible that determining the sentence in advance prevents more punitive (and therefore more expensive) sentences when participants fail.

Practices that fall under Key Component #2 appear to have a strong relationship with program outcomes. Drug courts should spend time examining their practices in this area to determine whether they are implementing this component in ways that will have the optimal effect.

KEY COMPONENT #3: ELIGIBLE PARTICIPANTS ARE IDENTIFIED EARLY AND PROMPTLY PLACED IN THE DRUG COURT PROGRAM.

Description and Operational Definition

The focus of this component is on the development and effectiveness of eligibility criteria and referral process. What types of clients are drug courts admitting? Different drug courts allow different types of criminal histories. Has the drug court defined their eligibility criteria clearly? Are these criteria written and provided to the individuals who do the referring? It is also of interest how the drug court determines if a client meets these criteria. While drug courts are always targeting clients with a substance use problem, the drug court may or may not use a substance abuse screening instrument to determine eligibility. The same may apply to mental health screens. A screening process that includes more than just an examination of legal eligibility may take more time but may also result in more accurate identification of individuals who are appropriate for the services provided by the drug court.

Related to the eligibility process is how long it takes a drug court participant to move through the system. The goal is to implement an expedient process. How much time passes between arrest and drug court entry? Who is involved in the referral process? Is there a central intake for treatment for expedient placement in the program? Also, what is the program's capacity? Capacity may reflect the needs of the community and the resources available to the drug court. In some service areas, there are more eligible participants than there are available drug court slots.

Further, the majority of drug courts are voluntary. That is, eligible offenders have a choice between drug court and traditional court, or in some cases offenders may have other treatment options to consider. What is the incentive for offenders to enroll and complete the drug court program? It is possible that this incentive plays a role in the prompt placement of individuals into the program.

Analysis of Implementation

Table 6 describes common practices that are consistent with Key Component #3. The percentages reveal the level of variation among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 6. Key Component #3 Operational Definition: Drug Court Practices

Key Component #3 Practices **Eligible Participants are identified early and promptly placed in the drug court program.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
Drug court uses a reduction or the elimination of potential jail time as an incentive to enroll and to complete the program.	18	100%	0%
Use of Central Intake for treatment referral.	18	100%	0%
Eligibility requirements have been agreed upon and written down.	17	94.1%	5.9%
Participants are admitted into the program only post-plea or post-conviction.	**18**	**66.7%**	**33.3%**
The drug court expects 20 days or less to pass from a participant's arrest and drug court entry.	**18**	**61.1%**	**38.9%**
Drug court maintains a caseload of fewer than 150 clients.	**17**	**58.8%**	**41.2%**
The drug court allows both felonies and misdemeanors. (see KC#2).	**18**	**56.2%**	**43.8%**
Drug Court allows non-drug charges (see KC#2).	**18**	**55.5%**	**44.5%**
Drug Court uses a substance abuse screen to determine eligibility.	**17**	**37.5%**	**62.5%**
Drug Court uses a mental heath screen to determine eligibility.	**17**	**35.3%**	**64.7%**

*Valid percents are reported

Variations in Practice:

Review of the data revealed differences among the drug courts that have implications for quality of care and outcomes. Some of these overlap with practices identified under Key Component #2 (and are therefore discussed under that component and not discussed here) but there were also new differences in practice discovered:

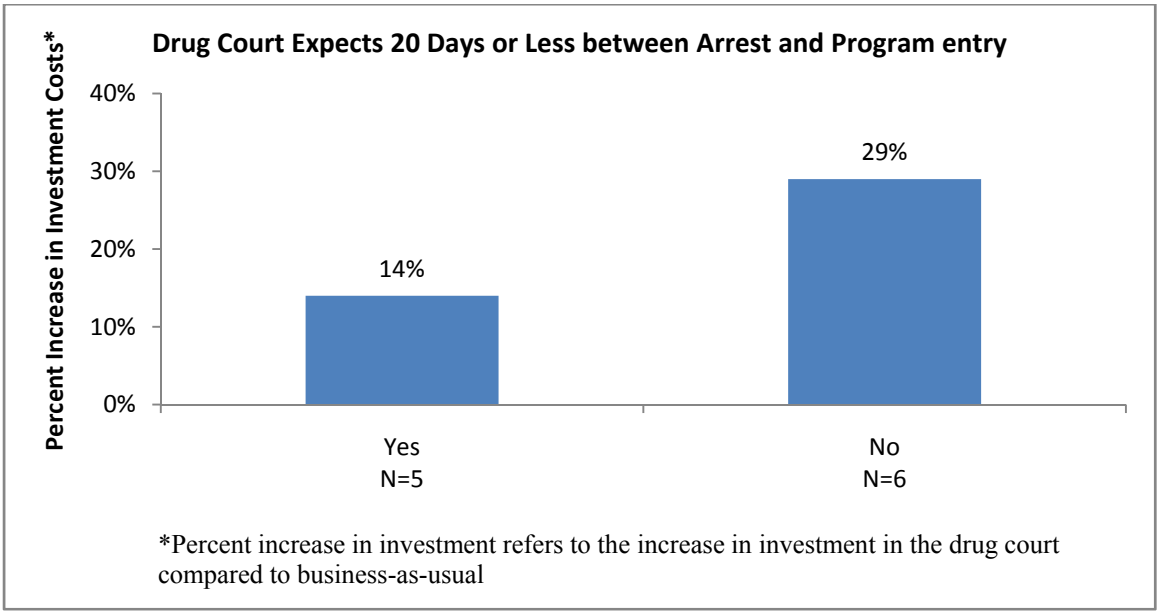
- **Time lapse between arrest and entry** – On average the sample of courts expected a time lapse of 37 days. One of the tenants of the drug court model is to get offenders into the program at a "teachable moment," when they have recently received a wake-up call such as an arrest. How important is the length of time between the arrest and entry in a participant's eventual success in the program?
- **Program capacity** – The average program size in this sample of courts was 116 participants, ranging from 35 to 350. While smaller programs may be able to provide more intense attention and services to participants, larger programs are able to reach more individuals and can lead to an economy of scale for investment costs. What is an appropriate size for a drug court program given the target population and community resources?
- **Use of screening instruments –** The use of substance abuse or mental health screens may significantly alter the composition of the drug court population that would likely impact program outcomes.

Practices in Relation to Outcomes

Time lapse between arrest and entry. This item addresses the estimates of drug court staff about the average time between offender arrest and entry into the program. The numbers reported here are not actual time elapsed but staff report of the average amount of time from participant arrest to program entry. This includes only participants who enter directly after an arrest, not those who enter from probation after violating.

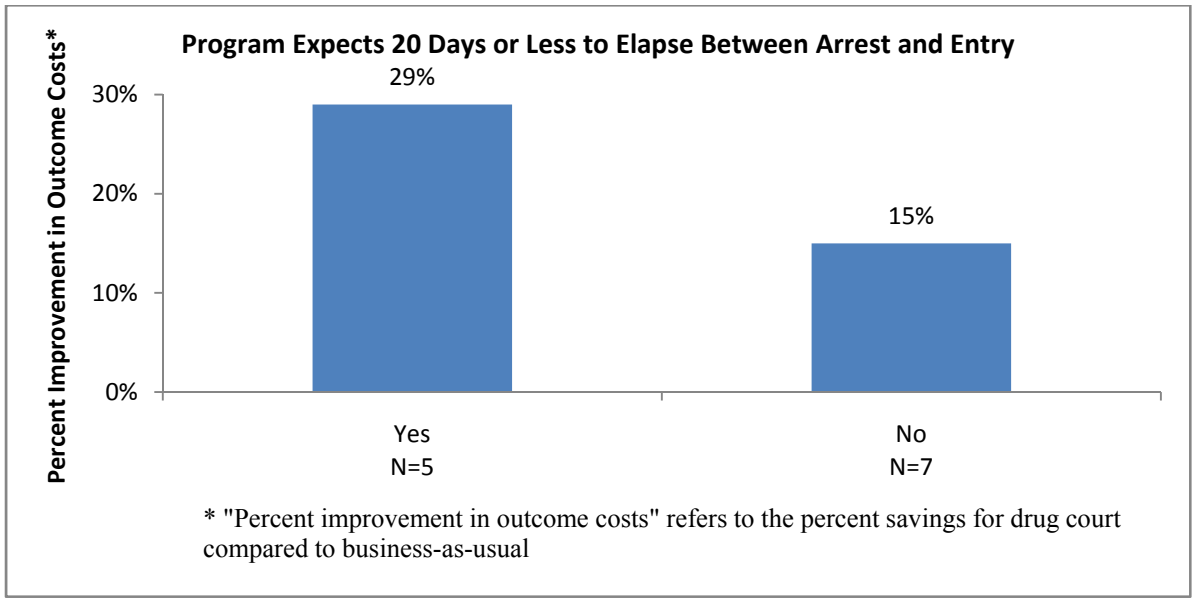
There were no substantive differences in graduation rate regardless of the amount of time elapsed at different drug courts. However, an elapsed estimated time of 20 days or less showed significant differences between courts on investment and outcome costs. Courts that expected the time elapsed to be no more than 20 days had lower investment costs and improved outcome costs (cost savings). Figure 7 and Figure 8 illustrate this.

Figure 7. Drug Courts That Expect 20 Days or Less to Elapse Between Arrest and Program Entry Had Lower Investment Costs



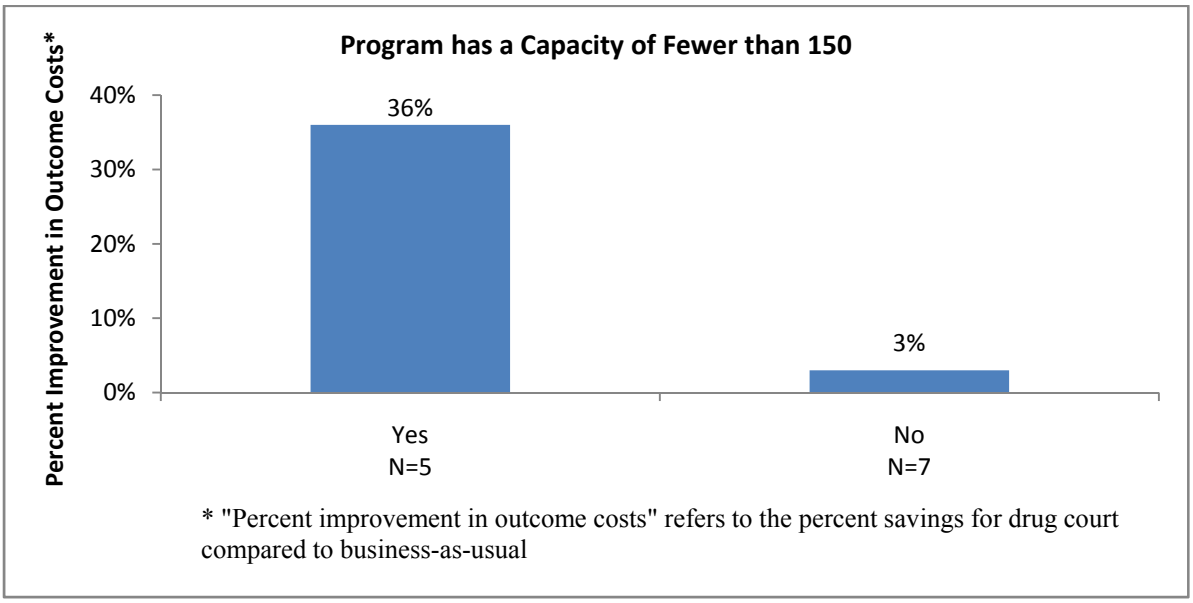
Of the 11 courts that had both practice and cost data available, 5 had an expectation of 20 days or less between arrest and program entry and 6 did not. Those that did averaged lower drug court investment costs. Although this difference was not significant, the investment costs for programs with a longer time between arrest and entry were twice as high as those with a shorter time. The difference in outcome costs was remarkably similar. Drug courts that reported a shorter time from participant arrest to entry had greater improvement in outcome costs (cost savings).

Figure 8. Drug Courts That Expect 20 Days or Less to Elapse Between Arrest and Program Entry Had Greater Cost Savings



Drug Court maintains a caseload of fewer than 150 clients. Regardless of the size of the caseload, there was no relationship between caseload and graduation rate. However, having a caseload of fewer than 150 clients was associated with significantly higher investment costs ($p < .05$). Those with a capacity of fewer than 150 clients averaged investment costs that were 37% higher than their comparison group, compared to only 5% higher investment for those with a capacity larger than 150. This is evidence for the economy of scale involved with serving large numbers of clients. On the other hand, a capacity of fewer than 150 was also associated with a significantly greater improvement in outcome costs (36% vs. 3%) ($P < .05$). Figure 9 illustrates the outcome costs.

Figure 9. Drug Courts with a Caseload of Fewer Than 150 Had Greater Cost Savings



Of the 12 courts that had data available, 7 had capacity sizes of less than 150 and 5 had sizes greater than 150. Those that had smaller sizes showed a 36% improvement in outcome costs (cost saving) relative to their comparison group. The 6 that were greater than 150 showed a 3% improvement over their comparison group.

Use of screening instruments. There were no clear effects of the use of screening instruments for substance abuse or mental health on graduation rate, investment cost or outcome cost. Although courts may use these instruments to screen before entry, most drug court staff will report that they have not turned offenders away based on the results of those screens. In addition, most drug court staff also report they do not refer to treatment based on the results of these screens. Given these reports, it is reasonable to find that the use of screening instruments in these cases does not show an effect on outcomes.

Summary and Discussion of Key Component #3

Key Component #3 addresses the issue of identifying offenders eligible for the program early and enrolling them quickly. Practices related to this component include those related to eligibility and the definition of the target population, as well as the timing of identification and placement.

There was strong consistency in some practices that fall within this component. All 18 drug courts reported using a central intake into the drug court program and all reported a reduction or elimination of jail time for program graduates. The vast majority also reported having written eligibility requirements. However, there were also several practices that varied between programs. These included practices regarding the charges that were eligible for the program, the length of time between participant arrest and program entry, program capacity, and the use of screening instruments to determine program eligibility.

Many of the practices related to identifying the target population were discussed under Key Component #2 in relation to due process and public safety. These included accepting participants pre- or post-plea and accepting non-drug-related charges. These practices had some effect on program outcomes. Courts that accepted pre-plea offenders had lower investment costs and

greater outcome cost benefits. Courts that accepted non-drug-related charges had higher investment costs, but also had greater outcome cost benefits. One of the key policy-related issues here is the trend of courts toward accepting offenders post-plea, which leads to greater use of system resources and more time between arrest and drug court entry (because the offender must go through more of the traditional court process before beginning the program).

Two of the practices that fall within Key Component #3 showed a strong relationship with investment and outcome costs: (1) length of time between arrest and entry and (2) program capacity. The relationship between these practices and program outcomes is summarized in Table 7.

Table 7. Key Component #3 Summary of Practices Related to Outcomes

Key Component #3 Practices	Investment Cost	Graduation Rate	Outcome Cost
The drug court expects 20 days or less to pass from a participant's arrest and drug court entry.	**Lower**	No Effect	**Positive Effect (Savings)**
Drug court maintains a caseload of fewer than 150 clients.	**Higher**	No Effect	**Positive Effect (Savings)****

**p < .05 (statistically significant)

A shorter length of time between arrest and participant entry is related to lower investment costs and greater cost savings. A longer time between arrest and program entry is often associated with more time spent in jail and greater use of court resources, which would explain the larger investment costs for courts that report more than 20 days. The positive outcomes (lower costs due to lower recidivism) associated with faster program entry provide further evidence for the argument that it is important to "strike while the iron is hot." Participants may be more ready to change when faced with the negative consequences of engaging in drug abuse and other criminal behavior such as being arrested and spending time in jail.

Program capacity is related to the identification and prompt placement of eligible offenders in that if the capacity is too small, eligible offenders may be turned away or placed on a waitlist. A capacity of fewer than 150 was related to higher investment costs. This appears to be due to an economy of scale issue; courts with larger capacities must process participants more efficiently. Yet, a smaller capacity was also related to substantial and significant outcome cost benefits. The participants in courts with a smaller capacity may receive more personal attention. However, there is pressure for drug courts to "go to scale" and increase their ability to process a larger participant population. The challenge is to adjust court operations (such as increasing numbers of staff) so that participants can continue to receive the same quality of service as when there were smaller numbers.

KEY COMPONENT #4: DRUG COURTS PROVIDE ACCESS TO A CONTINUUM OF ALCOHOL, DRUG AND OTHER TREATMENT AND REHABILITATION SERVICE

Description and Operational Definition

The focus of this key component is on the drug court's ability to provide participants with a range of treatment services. Success under this component is highly dependent on success under the first component (i.e., ability to integrate treatment services within the program). Compliance

with Key Component #4 requires having a range of treatment modalities or types of service available. However, drug courts still have decisions about how wide a range of services to provide. What types of services are offered? Does this include individual, group, and self-help meetings? The drug court may also prescribe the intensity or frequency of these services. In addition, the expected length of stay in treatment differs between programs.

Besides relying on traditional drug treatment services, the program may seek to include wrap-around services. Examples of common wrap-around services include vocational training, parenting classes and health services, as well as other life skills services. This can be provided through drug court staff or through relationships with community partners. Some also extend the continuum of care to include aftercare.

Analysis of Implementation

Table 8 describes common drug court practices that fall within Key Component #4. The percentages reveal the level of variation in implementation among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 8. Key Component #4 Operational Definition: Drug Court Practices

KC #4 Practice Description **Drug Courts provide access to a continuum of alcohol, drug and other treatment and rehabilitation service.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice]	**# Courts**	**% Yes***	**% No***
Drug court participants are offered group drug and/or alcohol counseling.	18	100%	0%
The drug court provides treatment through a series of phases.	18	100%	0%
Drug court participants are required to participate in support or self-help groups (e.g., AA, NA).	18	94.4%	5.6%
Drug court has established formal partnerships with community agencies.	18	83.3%	16.6%
Drug court offers additional wrap-around services (not including education/employment services).	18	83.3%	16.7%
Drug court offers education and employment services.	18	77.8%	22.2%
Drug court participants are offered individual counseling.	18	77.8%	22.2%
Drug court program is expected to take one year or less to complete.	**17**	**75.4%**	**34.6%**
Drug court has guidelines on the frequency of group treatment sessions that a participant must receive.	**18**	**65.9%**	**33.1%**
Drug court offers aftercare to graduating clients after they exit the program.	**17**	**58.8%**	**41.2%**
Drug court has guidelines on the frequency of individual treatment sessions that a participant must receive.	**17**	**29.5%**	**70.5%**

*Valid percents are reported

Consistencies in Practice: Review of the data revealed some consistent practices across programs. All of the drug courts in our sample offered group drug and alcohol treatment sessions and organized their programs in a series of phases. The large majority of these courts also required participants to attend self-help meetings, offered individual counseling, had formal partnerships with community agencies, and offered wrap-around services including education and employment counseling. NPC has also found these practices to be fairly consistent in other drug courts, not included among the 18 programs in this study (e.g., Weiss et al., 2007).

Variations in Practice: The data also revealed some differences in practices that have implications for quality of care and outcomes:

- **Provision of aftercare** – Approximately half of the participating courts offered aftercare to clients. Although many programs include what they call "aftercare" in the final phase of the program before participant graduation, in this case, we are defining aftercare as services that continue after participant graduation. Extending the continuum to include services after graduation impact the likelihood of relapse and other program outcomes.
- **Length of program** – Over one-third of the drug courts had program lengths greater than one year. This is an issue that is currently under much debate and it is important to determine whether this has an impact on participant outcomes. However, the optimum length of the program may vary depending on the participant population, particularly drug of choice. Generally, participants who stay in treatment longer tend to have better outcomes. While about two-thirds of the drug courts planned for a 12-month or less program (from 12 months down to 8 months), others planned for longer lengths of stay (from 14 months to 2 years).
- **Guidelines for treatment counseling sessions** – Of those that made individual counseling available, less than half provided any attendance guidelines. In many courts, the frequency of treatment sessions was decided on an "as needed" basis for each participant. All drug courts had group treatment counseling available. About two-thirds (66%) had requirements on the frequency of those sessions per week. It is interesting to note that the majority of these drug court programs had requirements on the frequency of group sessions but the majority did not have requirements about the frequency of individual sessions. Regardless of the specific frequency of the requirements, does just having consistent requirements for all participants impact program outcomes?

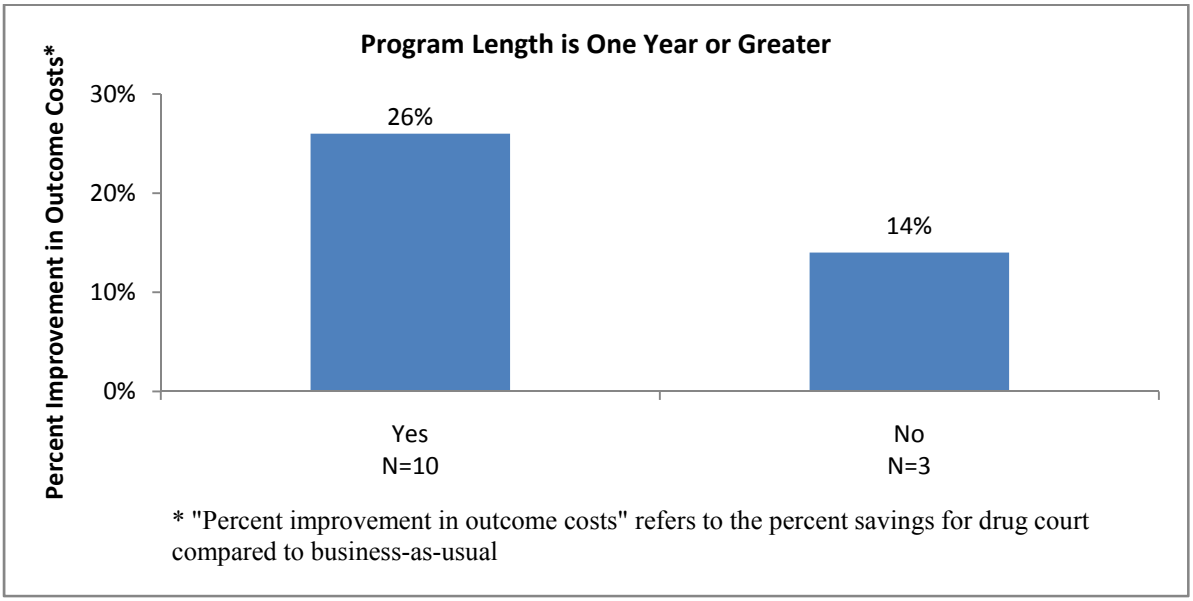
Practices in Relation to Outcomes

Provision of aftercare to participants after program exit. Although providing services to participants after graduation may appear to be important for continuing support, there were no clear effects for this practice on graduation rate, investment costs or outcome costs. One explanation may be that this analysis did not consider whether participants took advantage of this service (as the data were not available). In addition, by logical necessity, these services are only available to graduates and not to terminated participants. It is possible that those who graduate are in less need of support after leaving the program. One positive lesson that can be gained from this analysis is that if programs decide there is a need for aftercare, it does not appear to substantially impact program investment costs.

Length of program. Programs that were designed to have a program length of one year or more had significantly higher investment costs than those that expected a shorter time period ($p<.05$). Drug courts with longer programs had investment costs 31% higher than traditional court costs while programs of less than one year showed no difference in cost from traditional court.

There were no clear effects for length of program on graduation rate. However, having a longer program was associated with improved outcome costs. Although the difference was not statistically significant, longer programs had nearly twice the cost savings compared to shorter programs. Figure 10 illustrates the percent improvement in outcome costs (the relative cost savings).

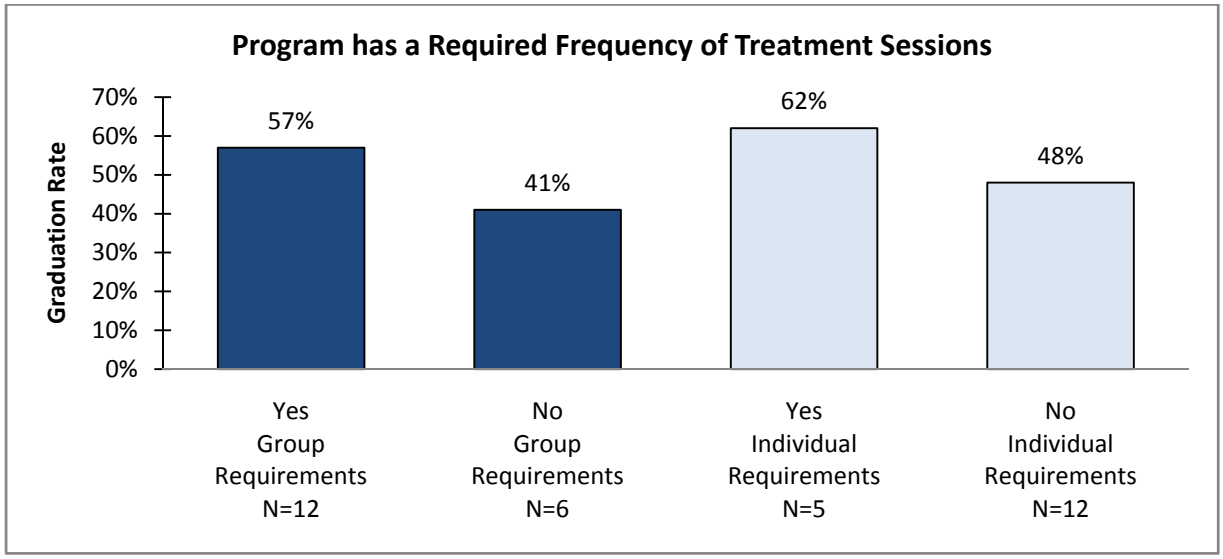
Figure 10. Programs That Were 12 Months or Longer Had Improved Outcome Costs (Cost Savings)



Of the 13 courts that had data on both practices and cost, 10 were designed as a 12-month or longer program and 3 had shorter programs. Those drug courts with 12-month or longer programs showed a 26% improvement in lowering outcome costs relative to their comparison group. Those that had less showed a 14% improvement over their comparison group. This is consistent with the literature showing better outcomes for substance abusers that stay in treatment longer. However, further research is needed to determine if the benefit makes up for the higher investment costs.

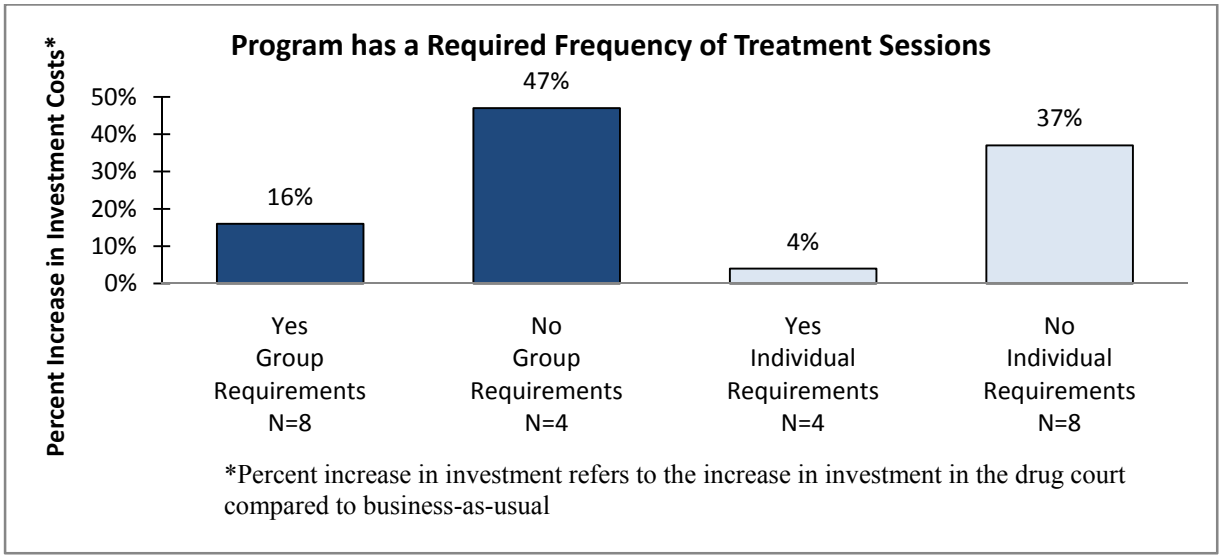
Guidelines for treatment counseling sessions. Having requirements on the frequency of group and individual treatment sessions (regardless of the actual frequency) was associated with significantly higher graduation rates compared with courts that provided treatment based on individual participant needs. Drug courts with a required frequency of treatment sessions also had significantly lower investment costs ($p<.05$) and had greater improvement in outcome costs (cost savings). Figure 11 illustrates the difference in graduation rates.

Figure 11. Programs That Had Requirements for Frequency of Group and Individual Treatment Sessions Had Higher Graduation Rates



Those drug courts that had a required frequency of group and individual treatment sessions for all participants had substantially and significantly lower investment costs. Investment costs in drug courts with a required frequency of group sessions were 31% lower than courts that provided group sessions "as needed," and courts that had required frequency of individual treatment sessions had investment costs that were 33% lower than courts that provided individual sessions "as needed."

Figure 12. Programs That Had Requirements for Frequency of Treatment Sessions Had Lower Investment Costs



The practice of having a required frequency of group and individual sessions is also associated with a large difference in outcome costs. Drug courts that had a required frequency of group treatment sessions had 34% greater improvement in outcome costs (cost savings) compared to drug courts that provided group sessions "as needed." Although not significant, drug courts with a required frequency of individual treatment sessions also had greater improvement in outcome costs, with savings 8% higher than drug courts that provided individual sessions "as needed."

Summary and Discussion of Key Component #4

The main focus of Key Component #4 is the provision by the program of a range of treatment options. This range not only includes treatment modality, but is also related to treatment dose (length of time in treatment), the intensity (frequency of treatment contacts) and the timing (aftercare).

Providing treatment or other support after graduation was not associated with graduation rate, investment costs or outcomes costs. According to our interviews with drug court staff and our observation of the programs, this lack of effect is due to several factors that include the following. One is differences in the type of support that is delivered between programs so there is no consistent modality being tested in this analysis. Another factor is that, at these sites, only program graduates are offered these services and they are most likely the very population that needs it less. Finally, there is variation in the extent to which these services are actually used at any of these sites.

However, length of stay and frequency of treatment sessions requirements were strongly associated with all three program outcomes measured in this analysis. Table 9 summarizes the findings for these practices.

Table 9. Key Component #4 Summary of Practices Related to Outcomes

KC #4 Practice Description	Investment Cost	Graduation Rate	Outcome Cost
Drug court program is expected to take one year or more to complete.	**Higher****	No Effect	**Positive Effect (Savings)**
Drug court has guidelines on the frequency of group treatment sessions that a participant must receive.	**Lower****	**Higher****	**Positive Effect (Savings)****
Drug court has guidelines on the frequency of individual treatment sessions that a participant must receive.	**Lower****	**Higher***	**Positive Effect (Savings)**

**$p < .05$ (statistically significant); *$p < .15$ (trend)

Not surprisingly, greater lengths of stay were associated with higher investment costs but were also associated with higher outcome cost benefits. It is difficult to determine if higher investment costs are necessarily a negative outcome. The investment in these practices may be worthwhile if they, in turn, lead to other positive and cost-beneficial outcomes or impacts.

Programs that have requirements around the frequency of group and individual treatment sessions (e.g., group sessions 3 times per week and individual sessions once per week) had substantially lower investment costs and substantially higher graduation rates and improved

outcome costs. Clear requirements of this type may make compliance with program goals easier for program participants and also make it easier for program staff to determine if participants have been compliant. This also ensures that participants are receiving a "full dose" of treatment. The lower investment costs are likely due to more clarity around what is expected of the treatment provider and the ability to determine reasonable payment for consistent services.

Overall, certain practices within this component are highly associated with positive program outcomes. Further research in this area with a larger sample of courts is warranted.

KEY COMPONENT #5: ABSTINENCE IS MONITORED BY FREQUENT ALCOHOL AND OTHER DRUG TESTING

Description and Operational Definition

The focus of this key component is on the use of alcohol and other drug testing as a part of the drug court program. The component encourages frequent testing but does not define the term "frequent" so drug courts develop their own guidelines on the number of tests required. Related to this component, the drug court must assign responsibility for these tests and the method for collection. Are tests administered on a random basis or for cause (such as the client appearing at a treatment session to be under the influence)? It is also important to understand the types of tests that drug courts are administering. Some may be more effective for encouraging abstinence than others. In addition, the tests vary in the amount of time required to generate results. Depending on the test administered, there may be a long time lapse from substance use until the drug court is informed of the results (and therefore a delay before the drug court can administer a sanction).

Analysis of Implementation

The following table (Table 10) lists common practices that are consistent with Key Component #5. The percentages reveal the level of variation in implementation among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 10. Key Component #5 Operational Definition: Drug Court Practices

KC #5 Practice Descriptions **Abstinence is monitored by frequent alcohol and other drug testing.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice]	**# Courts**	**% Yes***	**% No***
Drug court collects tests on a random basis.	18	100%	0%
Urinalysis tests are used.	18	100%	0%
Breath tests are used.	18	83.3%	16.7%
In the first phase of drug court, tests are collected at least 2 times per week.	**17**	**70.6%**	**29.4%**
Drug court uses a call-in system to ensure that drug tests are administered at random.	**18**	**61.1%**	**38.9%**
Drug court staff usually has the drug test results within 48 hours.	**17**	**53.0%**	**47.0%**
Drug court expects a client to have greater than 90 days of negative drug tests before graduation.	**17**	**47.0%**	**53.0%**
The treatment agency is solely responsible for the collection of samples.	**18**	**38.9%**	**61.1%**
Bracelet monitoring of sleep patterns is used as a drug testing method.	17	23.5%	76.5%
Hair tests are used as a drug testing method.	16	18.7%	81.3%
Blood tests are used as a drug testing method.	16	6.3%	93.7%

*Valid percents are reported

Consistencies in Practice: As in previous components, many of the practices relevant to Key Component #5 are implemented quite consistently across drug court sites. All of the drug courts in our sample used urinalyses (UAs) and reported collecting drug test samples on a random basis. While the large majority also used breathalyzer tests, most did not use hair or blood test, or a bracelet for sleep monitoring (mostly due to the expense of these types of tests). For the most part, UAs are the drug test of choice across all drug courts. They are relatively inexpensive, there are several different options for testing (e.g., dipsticks, lab testing) and results can be obtained quickly (immediately in some cases).

Variations in Practice: Review of the data also revealed some differences in practice that have implications for quality of care and outcomes:

- **Method for ensuring random testing** – While all of the drug courts reported that they tested on a random basis, their methods for ensuring randomness varied by court. Some methods may be more effective in making the participant understand that he/she could be tested at anytime. Most courts assign colors or numbers to each participant and use a call-in system. Others collect samples more frequently (5 or 6 days per week) but randomly

choose only one or two of these samples to test. Methods may influence participant compliance and long-term program outcomes.

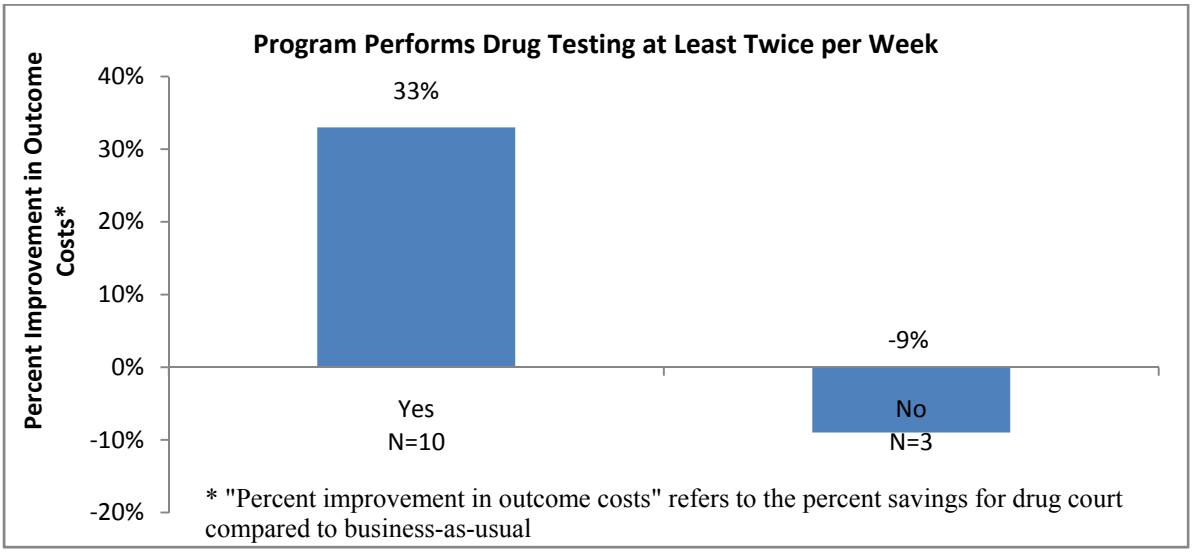
- **Frequency of testing** – The 10 Key Components encourage programs to test clients frequently but do not specify how frequently. There is a large variation on the frequency of tests across programs. Some courts test only once every other week in the first phase while others test as many as 6 times per week. How does the frequency of testing impact outcomes?
- **Time from test to results –** Nearly half of the drug courts waited several days before learning the results of a drug test while others obtained testing results within 2 days or less. As a result, for the courts that had delayed results, the appropriate sanctions or incentives were also delayed, which may affect participant outcomes.
- **Requirements for length of time clean before graduation** – Drug courts varied in the amount of time they expected clients to remain clean before they can graduate. Time periods ranged from 30 days to 6 months. Does a longer time clean lead to more positive outcomes?
- **Responsible party –** Some drug courts placed the responsibility of specimen collection solely on the treatment agency while others involved multiple agencies, generally including probation and/or corrections. Does the effectiveness of drug testing vary by the type and number of agencies involved?

Practices in Relation to Outcomes

Method for ensuring random testing. This practice was coded as whether or not the drug court used a call-in method for ensuring drug tests were administered randomly. There were no clear effects for method of randomizing drug tests for graduation rate, investment cost or outcome costs. This is most likely due to the small number of courts and the variety of methods that did not involve calling in for the results. Further examination of the possible variations in this practice should be performed with a larger number of programs.

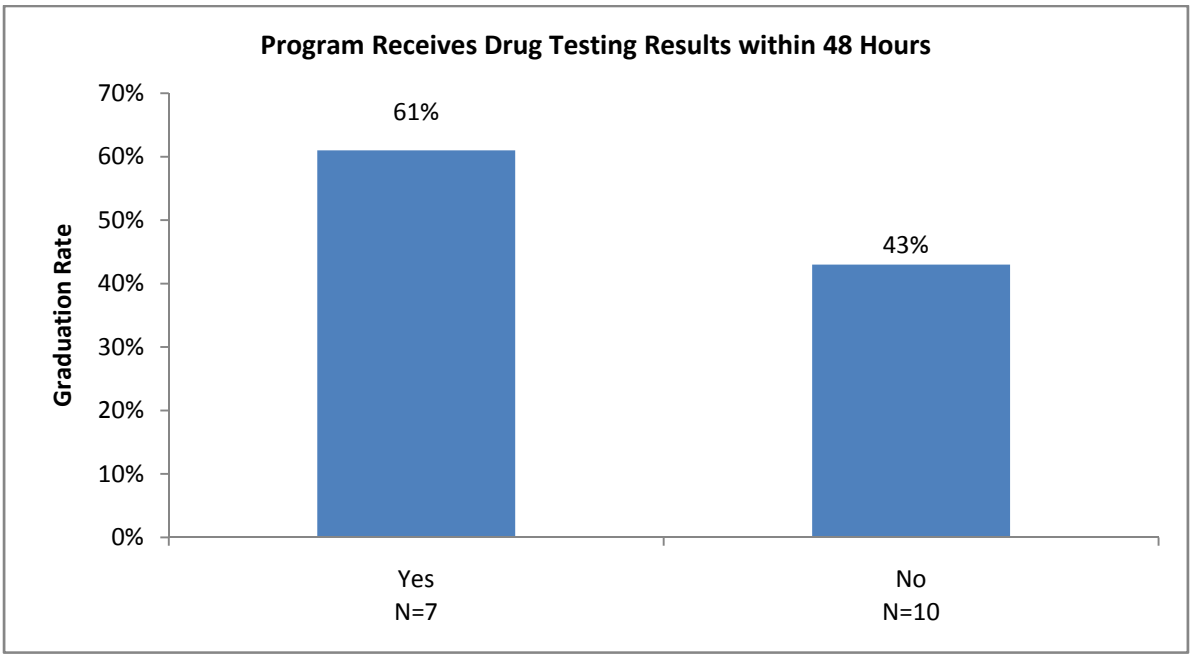
Frequency of testing. Drug testing 2 or more times per week in the first phase of the program does not appear to be associated with graduation rate. However, it is (not surprisingly) associated with higher investment cost (although this difference was not significant) and also is associated with significantly more positive outcome cost-benefits ($p < .05$). Figure 13 shows the differences in outcome cost. Participants in focus groups at these drug court sites were consistent in reporting that one of the strongest factors in keeping them from using was the drug testing. In spite of the higher investment costs, it appears from the outcome benefits (and from the participants' point of view) that it is worth the investment.

Figure 13. Courts That Performed Drug Testing 2 or More Times per Week in the First Phase Had Significantly Greater Improvement in Outcome Costs



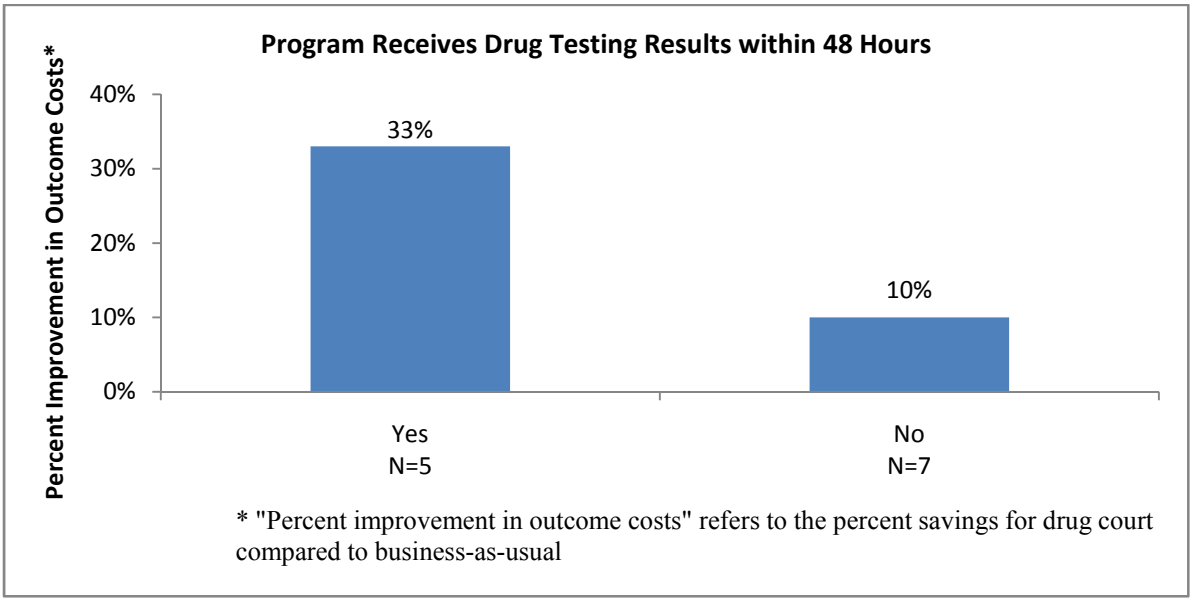
Time from test to results. Drug courts that obtained drug test results within 48 hours had significantly higher graduation rates ($p < .05$) and better outcome costs (cost savings). However, the length of time between the test and results showed no relation to investment costs. Figure 14 and Figure 15 illustrate the difference in graduation rates and outcome costs, respectively.

Figure 14. Courts that Received Drug Test Results within 48 Hours of Sample Collection Had Higher Graduation Rates



Graduation rates in drug courts that received drug testing results within 48 hours were 18% higher than drug courts that had a longer time between the sample collection and result. This difference was statistically significant ($p < .05$).

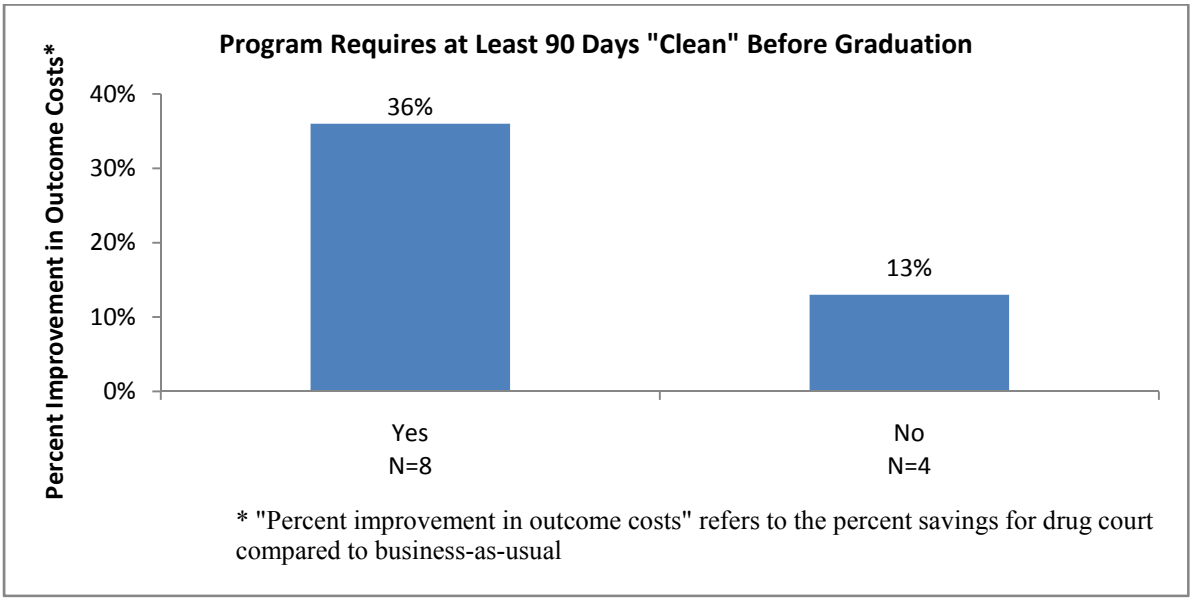
Figure 15. Courts that Received Drug Test Results Within 48 Hours of Sample Collection Had Greater Improvement in Outcome Costs



Of the drug courts that had both practice and cost data, there were five that received their drug test results within 48 hours and seven that had a longer time between sample collection and result. Drug courts that received test results within 48 hours of sample collection had 23% greater improvement in outcomes costs (23% greater savings) than drug courts with a longer time period. Although this was not statistically significant, the difference was substantial in that drug courts that received results within 2 days had cost-benefits greater than 3 times higher than courts who received their results in longer than 2 days. Statistically, this showed as a "trend" ($p < .15$).

Requirements for length of time clean before graduation. Drug courts that required greater than 90 days clean (negative drug tests for more than 90 days) showed no difference in graduation rates or investment costs but did show substantially greater improvement in outcome costs. Figure 16 illustrates the relationship between this practice and outcome costs.

Figure 16. Drug Courts That Required Greater Than 90 Days Clean Had Larger Improvement in Outcome Costs



Of the 12 drug courts that had both practice and cost results for this analysis, 8 required participants to have negative drug test results for 90 days or greater before graduation and 4 required less than 90 days. Drug courts that required clean tests for at least 90 days had 2½ times greater improvement in outcome costs than drug courts that required less time.

Responsible party for drug tests. There was no clear relationship between the practice of having only treatment providers responsible for drug testing and graduation rate or outcome cost. However, drug courts in which only the treatment provider performed drug testing did have lower investment costs. Drug courts that had solely treatment providers responsible for drug testing (N=4) had a 5% increase in investment costs compared to 37% in drug courts that had multiple agencies that performed drug tests (N=8).

Summary and Discussion of Key Component #5

Key Component #5 is focused on abstinence and regular and frequent drug testing. This can be put into practice in multiple ways including variations in type of test, frequency of testing, methods of randomizing tests, length of time to obtain test results and requirements on length of time "clean" before graduation. In addition, all of the drug courts in our sample used urinalyses (UAs) and reported collecting drug test samples on a random basis. While the large majority also used breathalyzer tests, most did not use hair or blood test, or a bracelet for sleep monitoring (mostly due to the expense of these types of tests as well as the time required to obtain results).

The drug courts examined in this paper differed in the frequency of testing, their methods for randomizing drug tests, the length of time before receiving test results and their requirements on length of time clean for participants to graduate.

Although all the drug courts in this sample practiced random drug testing, their method for randomizing tests differed. There was no relationship between using a call-in method versus other types of methods and program outcomes.

However, the frequency of drug tests was related to outcome costs, with courts that tested 2 or more times per week in the first phase having substantially lower outcome costs (greater savings) while courts that tested less often had higher outcome costs (lower savings).

The length of time between test and results must affect the immediacy of sanctions. Drug courts that received their test results back within 48 hours had significantly higher graduate rates and substantially improved outcome costs (cost savings). Further, the length of time clean required before graduation was associated with program outcome costs. Drug courts that required more than 90 days of negative tests before graduation had greater outcome benefits than courts that required 90 days or less.

Table 11 summarizes the relationship between the practices within Key Component #5 and program outcomes.

Table 11. Key Component #5 – Summary of Practices Related to Outcomes

KC #5: Practice Description	Investment Costs	Graduation Rate	Outcome Costs
In the first phase of drug court, tests are collected at least 2 times per week.	**Higher**	No Effect	**Positive Effect (Savings)****
Drug court staff usually has the drug test results within 48 hours.	No Effect	**Higher****	**Positive Effect (Savings)***
Drug expects a client to have greater than 90 days of negative drug tests before graduation.	No effect	No Effect	**Positive Effect (Savings)***
The treatment agency is solely responsible for the collection of samples.	**Lower***	No Effect	No Effect

**p < .05 (statistically significant); *p < .15 (trend)

Drug testing is clearly an important component for successful programs. Drug court participants report drug testing as one of the most effective techniques used for deterring use. More frequent and random drug testing makes it more difficult for participants to find times to use between tests.

One of the benefits of drug courts is that they allow participants to live in the community while they practice the skills they learned to function in the world without substance abuse. The longer participants remain clean under the support of the drug court program, the more experience they will have in practicing a healthy, functional lifestyle, which should continue to serve them after graduation or termination.

KEY COMPONENT #6: A COORDINATED STRATEGY GOVERNS DRUG COURT RESPONSES TO PARTICIPANTS' COMPLIANCE

Description and Operational Definition

The focus of this component is on how the drug court responds to clients' behavior during program participation. Drug courts have established a system of rewards and sanctions that determine the program's response to acts of both non-compliance and compliance with program requirements. This system may be informal and implemented on a case-by-case basis, or this may be a formal system applied evenly to all clients, or a combination of both. Drug court participants may (or may not) be informed of the details on this system of rewards and sanctions so their ability to anticipate responses may vary significantly across programs.

The drug court must also decide what constitutes an effective reward or sanction. Who can administer the rewards? Who can administer sanctions? Related to these decisions is how quickly a client will receive a reward or sanction after a behavior has occurred. Will these rewards and sanctions take place outside of the courtroom? If so, the rewards and sanctions can be administered more frequently than the court session schedule may allow.

Analysis of Implementation

Table 12 escribes common practices that are consistent with Key Component #6. Review of these indicators revealed that many drug courts are making the same decisions on practices in accordance with Key Component #6. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 12. Key Component #6 Operational Definition: Drug Court Practices

KC #6 Practice Descriptions **A coordinated strategy governs drug court responses to participants' compliance.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
Drug court uses incarceration as a sanction.	18	100%	0%
Drug court uses graduated sanctions.	17	94.1%	5.9%
Participants are provided with written descriptions of drug court policies or rules of conduct.	14	85.0%	15.0%
Drug court will offer small gifts or gift certificates as a reward.	18	83.3%	16.7%
There are clear/written "rules" regarding compliance and team responses.	17	82.4%	17.6%
Drug court will impose sanctions in advance of a client's regularly scheduled court hearing.	**18**	**72.2%**	**27.8%**
Drug court decreases the frequency of future treatment sessions as a reward.	**18**	**61.1%**	**38.9%**
Drug court uses increased support group attendance as a sanction.	**18**	**50.0%**	**50.0%**
Only the judge can provide clients with tangible rewards.	**18**	**50.0%**	**50.0%**
Only the judge can give sanctions to clients.	**18**	**44.4%**	**55.6%**
Drug court decreases the frequency of future drug testing as a reward.	**18**	**27.8%**	**72.2%**

*Valid percents are reported

Consistencies in Practice: Review of the data showed several consistent practices across drug courts. All drug courts in our sample used incarceration as a sanction. Most of these drug courts had graduated sanctions, had written rules about participant compliance and gave these rules to participants (generally in the form of a participant handbook). Most courts also offered at least some small tangible rewards.

Variations in Practice: Review of the data also revealed some differences in practices that have implications for quality of care and outcomes:

- **Imposing sanctions in advance of scheduled court sessions –** Imposing sanctions outside of court sessions (before scheduled court sessions) allows the drug court team to respond to non-compliant behavior more quickly, while waiting until the next scheduled court sessions may result in a week or greater between the behavior and the response. Good behavior modification techniques recommend a shorter time between the behavior and the response. Just under three-quarters of these drug courts imposed sanctions in advance of regularly

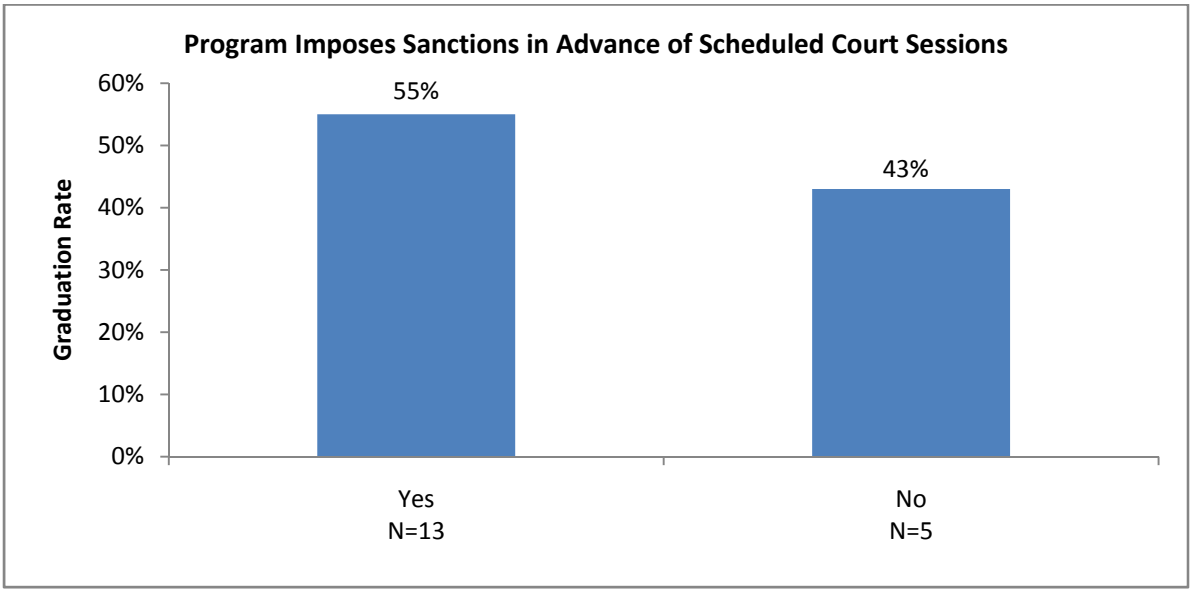
scheduled court sessions, while just over a quarter waited for the next court session to impose sanctions on non-compliant participants. How important is the ability to sanction non-compliant behavior in advance of court sessions in the drug court setting? If participants must wait until their scheduled court hearing to receive a sanction, is the connection between behavior and consequence negatively impacted? Alternatively, how important is it that those sanctioned serve as an example for other participants during the court session?

- **Decreasing the frequency of treatment sessions as a reward** – The provision of treatment sessions to clients is considered an important aspect of the drug court program. Over half (61%) of the drug courts reviewed in this paper used decreasing the frequency of treatment sessions as a reward, while the rest did not. Does decreasing the amount of treatment sessions offered to a client serve as an effective reward in terms of program outcomes or does it lessen the effectiveness of treatment?
- **Increasing support group attendance as a sanction** – Courts were divided in their use of support groups as a sanction. Half reported increasing support group attendance as a sanction while half did not. Does the use of this sanction improve client compliance and eventually program outcomes?
- **Designating the judge as the sole provider of rewards/sanctions** – The judge is generally described as the main authority figure in the drug court setting, and some judges will describe feeling much like a parent to the drug court participants. Exactly half of the courts reported the judge as the sole provider of rewards while just under half reported the judge as the sole provider of sanctions. Is it more effective to have a sole authority figure be the arbiter of rewards/sanctions (i.e., the judge) or are there benefits to having more team members involved?
- **Decreasing drug testing as a reward** – Drug testing is used to create participant accountability. Just over one quarter of the drug courts reviewed in this paper reported decreasing the frequency of drug testing as a reward for compliant behavior while just under three-quarters did not. How effective is decreasing drug testing as a reward? When drug testing is decreased, could it encourage relapse?

Practices in Relation to Outcomes

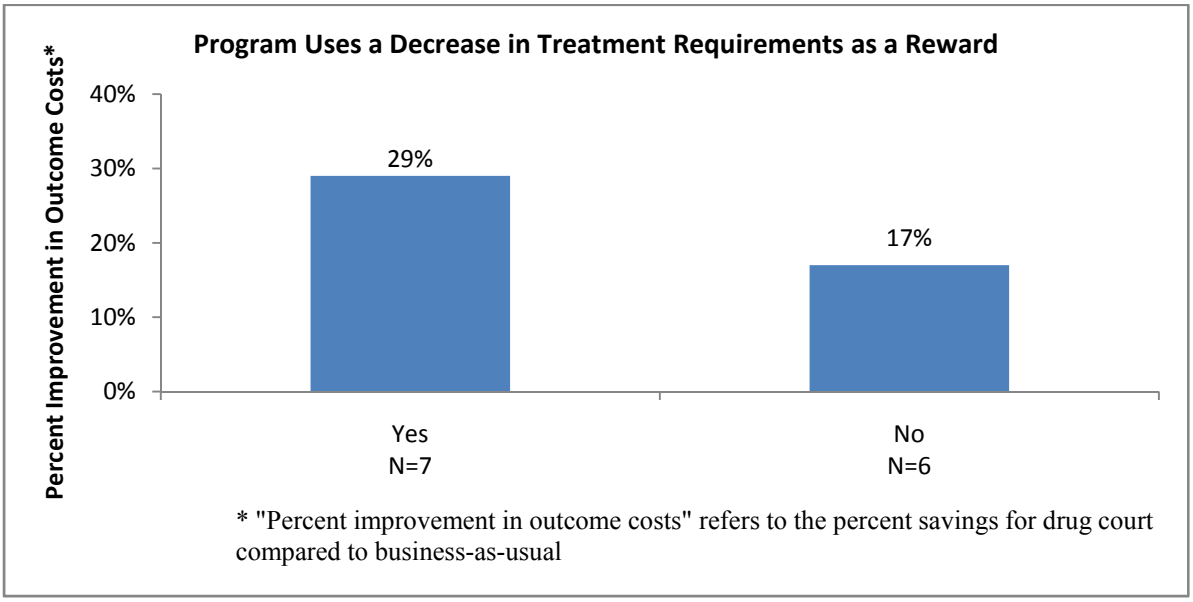
Imposing sanctions in advance of scheduled court sessions. The ability to provide sanctions outside of court sessions can decrease the amount of time between non-compliant behavior and program response. This practice is related to the previously described practice of whether judges are the sole provider of sanctions. The results suggested that courts that allow sanctions outside of court sessions are associated with higher graduation rates (average 55% compared to 43% for those who do not do this). This difference was significant at a "trend" lever ($P < .15$). Figure 17 illustrates this difference. However, there appears to be no association with investment or outcome costs. One interpretation of this may be that, although prompt rewards and sanctions are important for participants to learn compliance with program requirements, it is also important for participants to learn from examples during court sessions.

Figure 17. Courts that Impose Sanctions in Advance of Scheduled Drug Court Sessions had Higher Graduation Rates



Decreasing treatment obligations as a reward. The practice of decreasing the frequency of required treatment sessions as a reward for participant compliance appears to have no relation to graduation rate or investment costs, although it is associated with increased improvement in outcome costs. Figure 18 illustrates the relationship between this practice and outcome costs.

Figure 18. Drug Court that Decrease Treatment Obligations as a Reward Had Greater Improvement in Outcome Costs (Cost Savings)



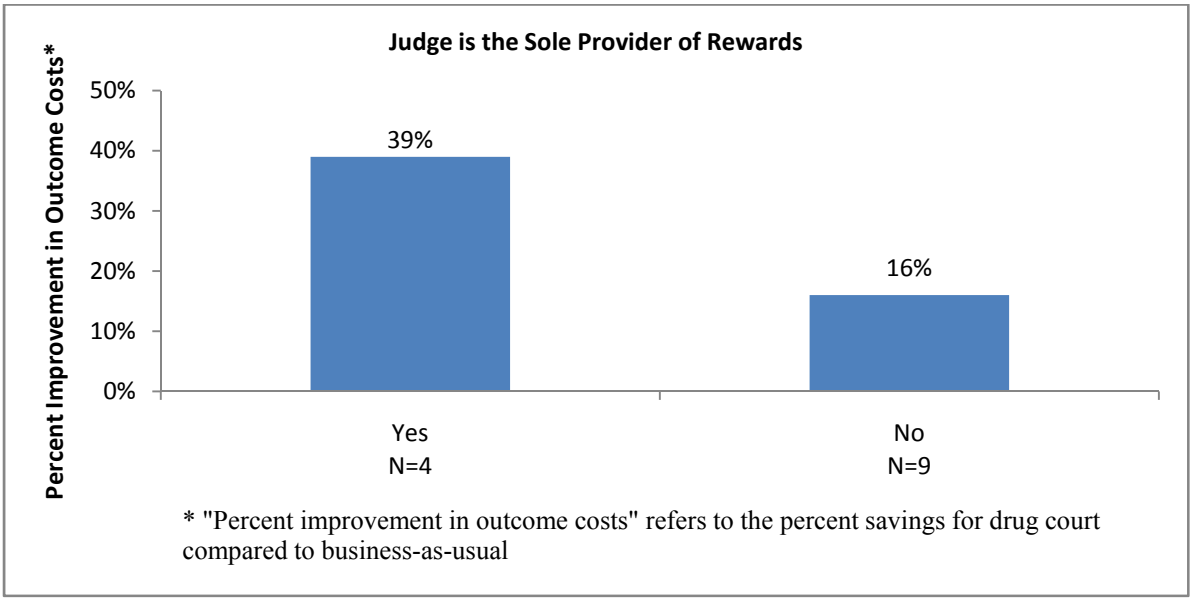
Of the 13 courts that had both cost and practice data available, 7 had this policy and the rest did not. Those that implemented this policy showed a 29% improvement in lowering outcome costs relative

to their comparison group. Those that did not showed an average 17% improvement over their comparison group. According to drug court staff who use this reward, participants who are doing well respond to fewer obligations and gain more experience in coping without drugs on a less structured schedule, more like the kind of schedule they will have after leaving the drug court program. In addition, this is supportive of Marlowe's (2007 – Personal Communication) findings that those who have less severe drug addiction benefit from less intensive treatment. It is possible that many of those who are more compliant have less severe issues.

Increasing support group attendance as a sanction. Although this practice was associated with an increase in investment costs, there was no clear relationship between increasing support group attendance as a sanction and graduation rate or outcome costs. It is unclear why investment costs should increase in relation to this practice since support groups have no direct cost to the taxpayer. It is likely that there is some other factor in these courts associated with support groups that is related to investment costs. It is possible that this practice has a mixed effect; while it may benefit some participants, others would find the increased attendance a greater burden and an additional stress, which may lead to poorer outcomes. In addition, most drug courts don't have any control over the quality of these self-help groups, and it is likely that, although some participants find these groups an enormous support and gain understanding of their addiction, others find them inappropriate. For example, participants in focus groups from these sites have complained that the groups available to them focus on drugs or life issues that are not relevant to their own drug of choice or life issues. Drug courts may want to look more closely at self-help groups available to their participants to determine their appropriateness.

Designating the judge as the sole provider of rewards and sanctions. Although courts that designated the judge as the sole provider of rewards had higher investment costs (averaging 39% increase over traditional court costs vs. 16% for courts that do not), this also appears to be associated with improved outcome costs. It is unclear why having the judge dispense rewards should be associated with higher investment costs. It is possible rewards provided by the judge are more substantive and more likely to be tangible and therefore cost more. It is also possible that judges who provide rewards take more time with participants during court hearings, which adds to investment expense. Whatever the case, the investment may be worth the expense in that this practice is associated with slightly higher graduation rates (56% vs. 47%) and greater improvement in outcome costs. Figure 19 illustrates the association of this practice with outcome costs.

Figure 19. Drug Courts That Have the Judge be the Sole Provider of Rewards Had a Greater Improvement in Outcome Costs (Cost Savings)



Of the 13 courts that had data available on both practice and cost, 4 had this policy and the rest did not. Those that implemented this policy showed a 39% improvement in lowering outcome costs relative to their comparison group. Those that did not, showed an average 16% improvement over their comparison group. It is possible that the example for other participants of the judge providing rewards to others may be a powerful incentive to do well.

In courts where the judge is the sole dispenser of sanctions, there was no substantive association with graduation rate, investment costs or outcome costs. A benefit of having the judge be the sole provider of sanctions is that participants may have some more predictability about when those sanctions might occur, which may be less stressful. Alternatively, allowing other team members to dispense sanctions makes it more likely that sanctions occur in a timely manner, more immediately after the non-compliant behavior. There are some drug courts in which the judge is on-call to dispense sanctions at any time, rather than waiting until the next court session, which keeps the sanctions under the judge's discretion and also allows for swift responses to behavior. However, the schedules for most judges do not allow this option.

One lesson that can be learned from this, however, is that it is not necessary for the judge to be the sole provider of sanctions for a program to have positive outcomes.

Decreasing drug testing as a reward. There was no clear association between the use of this practice for graduation rate, investment costs or outcome costs. It is possible that less frequent drug testing encourages some offenders to find ways to use between tests while reinforcing those who are committed to abstaining. Opposing participants may "cancel each other out," leading to no clear effects on program outcomes. At least it doesn't appear to be detrimental to program outcomes to use this practice.

Summary and Discussion of Key Component #6

The focus of Key Component #6 is the behavior shaping and modification that is the cornerstone of the drug court approach. This involves the strategies that drug courts use to respond to

differing participant behavior. These strategies mainly include rewards (reinforcement) for positive participant behavior and sanctions (punishment) for negative, or non-compliant, behavior. Related to these strategies are not only the type of rewards and sanctions but also their timing in relation to when the participant behavior occurred and who is responsible for dispensing them.

There was some consistency in practice across the 18 courts in this sample. All of the drug courts had the option of jail as a sanction. The majority of programs had graduated sanctions, had written rules about participant compliance, and gave these rules to participants. Variations in practice among these courts included the ability of the team to impose sanctions in advance of drug court sessions, the use of decreasing the frequency of treatment sessions and drug tests as a reward, the use of increased support group attendance as a sanction, and whether or not the judge is the sole provider of rewards and/or sanctions.

Some types of rewards were correlated with differing program outcomes. Sites that decreased the number of required treatment sessions as a reward were associated with a greater improvement in outcome costs. Decreasing the number of required drug tests was not. Decreasing treatment sessions may decrease participant stress levels due to multiple obligations, while decreasing drug tests may tempt those who are not committed to ending their drug use to find time to use between tests.

Who dispenses the rewards and sanctions also showed some association with differing program outcomes. Drug courts that have the judge as the sole provider of rewards showed higher improvement in outcome costs, which points to the importance for participants of having an authority figure show approval of their behaviors, and perhaps the power of examples to other participants in court. In contrast, having the judge as the sole provider of sanctions was not associated with graduation rates, investment costs or outcome costs. Perhaps this can be used as evidence that having the judge be the sole provider of sanctions is not necessary for a program to have positive outcomes.

Finally, the immediacy of sanctions was related to improved graduation rates, but not to investment or outcome costs. It could be that, although sanctions guide participants to compliant behavior within the program, they may not be the most important factor in how participants behave after leaving the program.

Table 13 provides a summary of the practices that were related to program outcomes.

Table 13. Key Component #6 - A Coordinated Strategy Governs Drug Court Responses to Participants' Compliance

KC #6 Practice Descriptions	Investment Costs	Graduation Rate	Outcome Costs
Drug court will impose sanctions in advance of a client's regularly scheduled court hearing.	No Effect	**Higher***	No Effect
Drug court decreases the frequency of future treatment sessions as a reward.	No Effect	No Effect	**Positive Effect (Savings)**
Only the judge can provide clients with tangible rewards.	**Higher****	No Effect	**Positive Effect (Savings)***
Drug court uses increased support group attendance as a sanction.	**Higher***	No Effect	No Effect

**p < .05 (statistically significant); *p < .15 (trend)

The types of rewards and sanctions and how rewards and sanctions are dispensed are crucial in effective behavior modification. Drug courts should pay special attention to the practices they use within this component to determine whether their responses to participant behavior are having the desired effect.

KEY COMPONENT #7: ONGOING JUDICIAL INTERACTION WITH EACH PARTICIPANT IS ESSENTIAL

Description and Operational Definition

The focus of this component is on the judge's role in drug court. The judge plays an extremely important function for drug court in monitoring client progress and using the court's authority to promote positive outcomes. While this component encourages ongoing interaction, drug courts must still decide how to structure the judge's role. How often does the client interact with the judge in court? How involved is the judge with the client's case? Outside of the court sessions, the judge may or may not be involved in team discussions, progress reports and policymaking.

Analysis of Implementation

Table 14 describes practices that are relevant to Key Component #7. The percentages reveal the level of variation among the reporting drug courts in implementing these practices. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 14. Key Component #7 Operational Definition: Drug Court Practices

KC #7 Practice Descriptions: **Ongoing judicial interaction with each participant is essential.** [Note: Bolded practices are those with greater variation – no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
The judge is expected to attend every drug court session.	18	100%	0%
The judge is expected to attend "staffings" (team meetings where participant progress is discussed).	15	100%	0%
The judge is expected to attend all policy meetings (steering committee meetings).	10	100%	0%
The judge receives written progress reports on participants.	17	76.5%	23.5%
The judge is assigned to drug court for a term of greater than 2 years (or indefinitely).	**18**	**50.0%**	**50.0%**
In the final phase of drug court, the clients appear before the judge in court at least once per month.	**18**	**50.0%**	**50.0%**
Only the judge can provide clients with tangible rewards.	**18**	**50.0%**	**50.0%**
Only the judge can impose sanctions to clients.	**18**	**44.4%**	**55.6%**
When clients first begin drug court, they appear before the judge in court once per week.	**18**	**38.9%**	**61.1%**

*Valid percents are reported

Variations in Practice

Consistencies in Practice: Review of the data revealed many practices that were consistent across the drug courts in this sample. Although some drug courts evaluated by NPC have reported that judges do not attend team meetings or sit on the policy committees, all the drug courts in these 18 sites reported that the drug court judge attended these meetings. As would be expected, the judges attended all drug court sessions at all of these drug courts. (Although, in some sites, there is occasionally a substitute judge, or a commissioner who will fill in for the judge). In addition, the vast majority of these courts (over 75%) reported that the judge received written progress reports on clients.

Variations in Practice: The review of data also revealed some differences in practice that have implications for quality of care and outcomes. Some of these overlap with differences identified and discussed under Key Component #6 and so are already discussed in that component and are not re-discussed here, but there were also new differences in practice discovered:

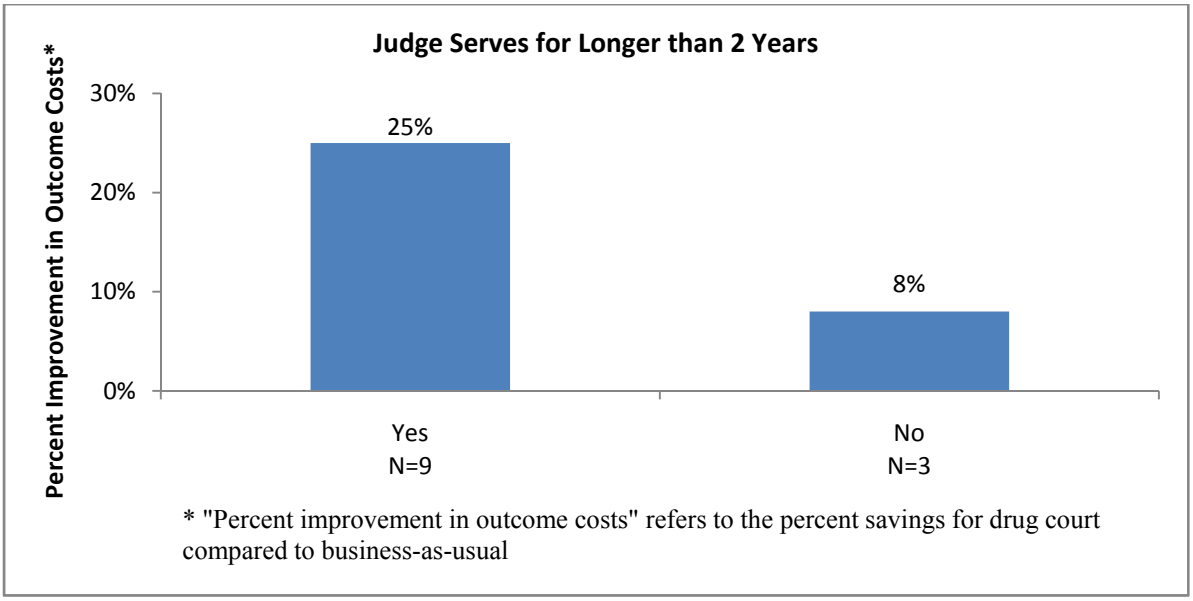
- **Judge assignments** – Half of the judges in these drug courts were assigned to the programs for over 2 years, or indefinitely, while the others had judges that rotated on a regular schedule from 1 to 2 years. Do programs with frequently rotating judge have different outcomes than those with judges that stay longer or indefinitely?

- **Frequency of interaction with judge** – Drug courts have established different guidelines for how often the clients appear before the judge. Approximately 40% required clients to appear in court weekly during the first phase. Several courts mandated an appearance once every 2 weeks. Near the end of program completion, some clients were not appearing in court at all. Although in half of the courts, clients were still appearing at least once a month. What frequency of contact is required for positive outcomes?

Practices in Relation to Outcomes

Judge assignments. Drug courts with judges assigned for greater than 2 years or indefinitely had slightly higher graduation rates (52% for programs with judges that stayed longer vs. 45% for programs with judges who stayed less than 2 years) and greater improvements in outcome costs than drug courts with judges that rotated through more often than every 2 years. There was no relationship between this practice and investment costs. Figure 20 illustrates the difference in outcome costs.

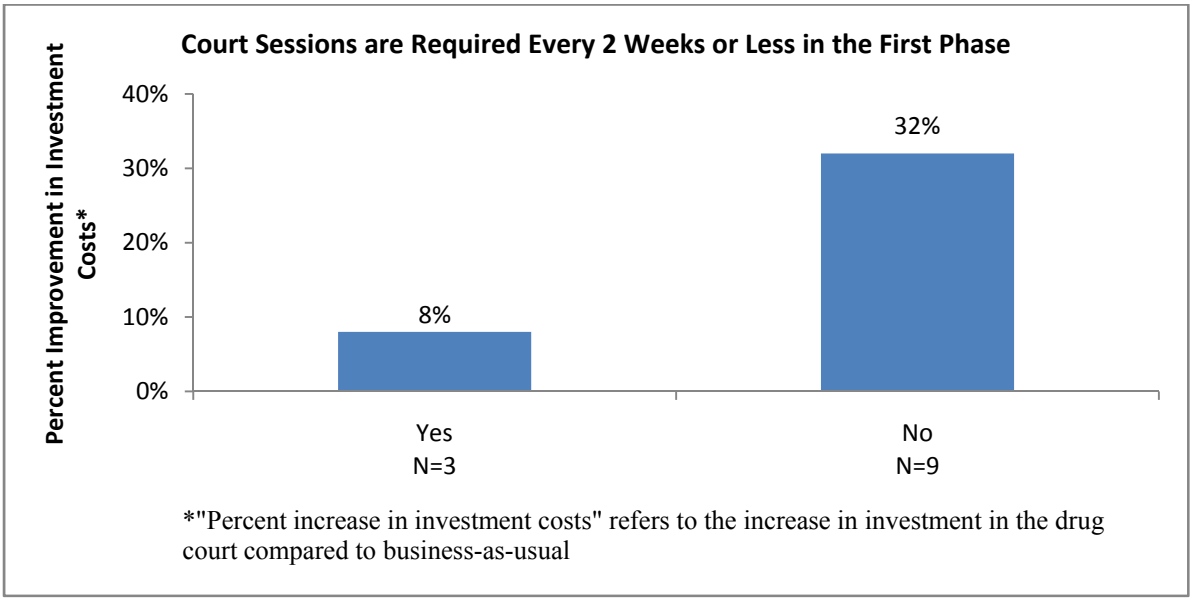
Figure 20. Drug Courts That Have the Judge Serve for Longer Than 2 Years Had Greater Improvements in Outcome Costs (Cost Savings)



Of the 12 drug courts that had both cost and practice data available, 9 had judges that were assigned to the drug court bench for longer than 2 years while 3 had judges that rotated through more often. Although the difference was not statistically significant, the drug courts that had judges stay for longer terms had cost savings 3 times greater than drug courts with judges that rotated more frequently.

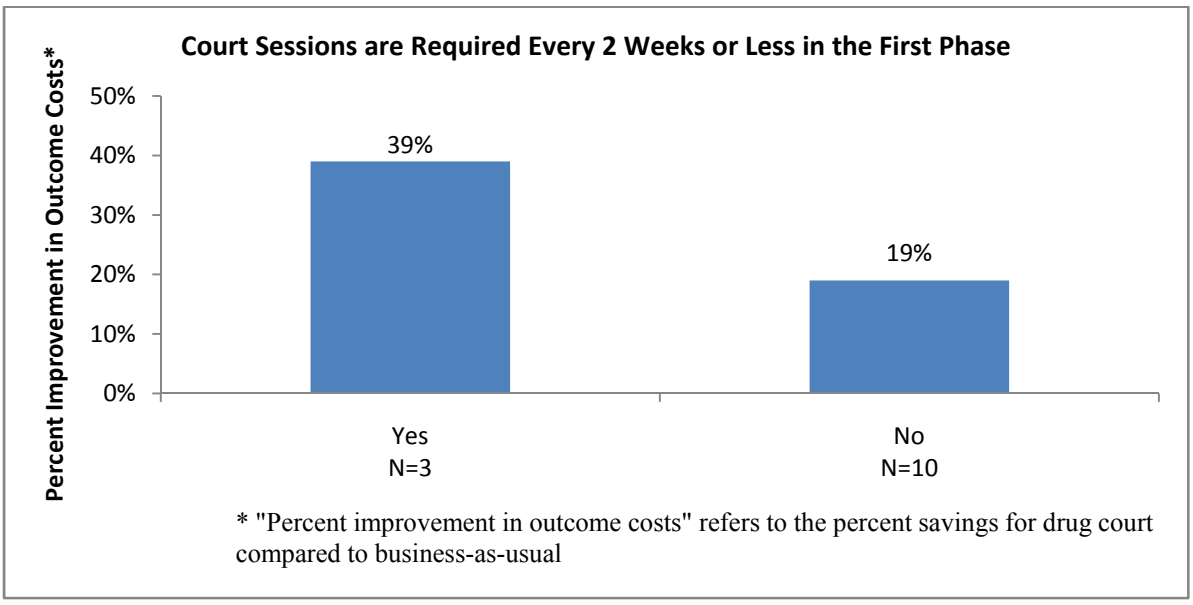
Frequency of interaction with judge. Drug courts that required participants to attend drug court sessions less often (once every 2 weeks to once per month) in the first phase had lower investment costs and greater improvement in outcome costs than drug courts that required court sessions more frequently. There was no significant effect on graduation rates. Figure 21 shows the relationship between frequency of court sessions and investment costs while Figure 22 shows the relationship between frequency of drug court sessions and program outcomes.

Figure 21. Drug Courts That Had a Required Frequency of Court Sessions of Once Every 2 Weeks or Less in the First Phase Had Lower Investment Costs



Of the drug courts that had both practice and cost data available, three required drug court sessions every 2 weeks or less in the first phase while nine required more frequent sessions. Those that required less frequent court sessions had lower investment costs. This is not surprising given that drug court sessions are one of the most expensive drug court activities.

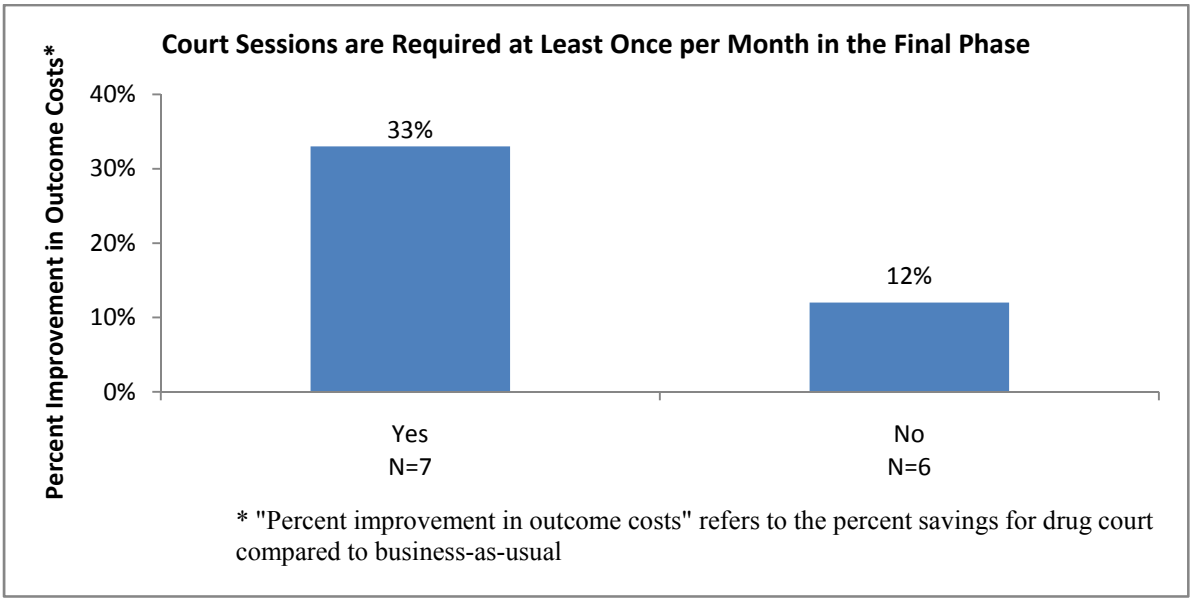
Figure 22. Drug Courts that Required a Frequency of Court Sessions of Once Every 2 Weeks or Less in the First Phase had Greater Improvement in Outcome Costs



Court sessions as frequent as once per week may be more of a burden to participants than they are a benefit. The structure of a drug court program should support participants' ability to make the behavior changes to a healthier and more responsible life style. Too much structure, or too many requirements, can undermine a participant's ability to keep a job, care for his/her children, or succeed in other ways. This analysis did not take into account other factors such as participant risk level. Marlowe, Festinger, Lee, Dugosh, and Benasutti (2006) found that lower-risk participants did better with less frequent court sessions while those at higher risk levels did better with more frequent drug court sessions.

Drug courts that require participants to attend court at least once per month in the final phase of the program had slightly higher graduation rates and investment costs and substantially greater improvement in outcome costs. Figure 23 illustrates the relationship between drug court session requirements in the final phase and percent improvement in outcome costs.

Figure 23. Drug Courts That Require Court Sessions at Least Once per Month in the Final Phase Have Greater Improvement in Outcome Costs (Cost Savings)



Of the 13 courts that had cost and practice data available, 7 required court sessions at least once per month in the final phase while the others did not. Those that implemented this policy showed a 33% improvement in lowering outcome costs relative to their comparison group. Those that did not showed an average 12% improvement over their comparison group. Although the difference was not statistically significant, programs that required court sessions at least once per month in the final phase had a cost savings nearly 3 times greater than programs that required court sessions less often.

Summary and Discussion of Key Component #7

Key Component #7 is centered on the interactions between the participant and the judge. This component includes the frequency of participant contact with the judge throughout the program, as well as continuity of that interaction. The judges at the majority of these drug courts attended team meetings where participant progress is discussed, attended steering committee meetings, and of course attended drug court sessions. Also, in the majority of these courts, judges received

written progress notes on each participant. Practices that varied among these courts included the length of the term judges were assigned to drug court, and the frequency of required court sessions for participants at the beginning and end of the program.

Programs with judges assigned to drug court for greater than 2 years or indefinitely, versus courts that rotated their judges more often, showed greater improvement in graduation rate and outcome costs. In programs where judges rotate more frequently, staff and participants report that they have little continuity with the judge during the length of the program. The length of stay in most drug court programs is greater than one year; therefore, in programs where the judge rotates yearly, participants will experience at least two different judges during their time in court. It is difficult for them to form a relationship with the judge, or if they do form a relationship it can be detrimental to client progress when the judge leaves.

The required frequency of court sessions in the first and last phases of the program correlated with different outcomes. Courts that required court sessions every 2 weeks or even less often in the first phase had lower investment costs and greater costs savings. It is possible that the burden of too frequent requirements may outweigh the benefits to participants. Conversely, courts that required attendance at court sessions at least once per month in the final phase had better outcomes than drug courts that required that required less frequent sessions. It may be important for participants who are preparing to leave the structure of the program to have the support offered by monthly drug court sessions.

Table 15 summarizes the practices falling under Key Component #7 that were related to outcomes.

Table 15. Key Component #7: Summary of Practices Related to Outcomes

KC #7: Practice Descriptions	Investment Cost	Graduation Rate	Outcome Costs
The judge was assigned to drug court for a term of greater than 2 years (or indefinitely).	No Effect	**Higher**	**Positive Effect (Savings)**
In the first phase of drug court, participants appear before the judge in court once every 2 weeks or less.	**Lower***	No Effect	**Positive Effect (Savings)**
In the final phase of drug court, the clients appear before the judge in court at least once per month.	No Effect	**Higher**	**Positive Effect (Savings)**

**p < .05 (statistically significant); *p < .15 (trend)

The interaction of the drug court judge with participants is central to the drug court model. Attention should be given to the appropriate frequency of court sessions for optimum participant benefit as well as to judge assignment and training. Training will be discussed further in Key Component #9.

KEY COMPONENT #8: MONITORING AND EVALUATION MEASURE THE ACHIEVEMENT OF PROGRAM GOALS AND GAUGE EFFECTIVENESS

Description and Operational Definition

This component encourages drug court programs to monitor their progress towards their goals and evaluate the effectiveness of their practices. The purpose is to establish program accountability to funding agencies and policymakers as well as to themselves and their participants. Further, regular monitoring and evaluation provides programs with the information needed to make adjustments in program practices that will increase effectiveness. Monitoring and evaluation are assisted when the drug court maintains thorough and accurate records. Drug courts may record important information electronically, in paper files or both. Ideally, drug courts will partner with an independent evaluator to help assess their progress. Has the drug court program participated in an evaluation? Do they collect their own statistics? Lastly, it is important to determine how receptive programs are to modifying their procedures in response to feedback.

Analysis of Implementation

The following table describes common drug court practices that are relevant to Key Component #8. The percentages reveal the level of variation in practice among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 16. Key Component #8 Operational Definition: Drug Court Practices

KC #8 Practice Description **Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
Drug court staff routinely collects and reports program statistics.	16	100%	0%
The drug court has participated in evaluations conducted by an independent evaluator.	18	100%	0%
Drug court maintains an electronic database for monitoring clients.	17	94.1%	5.9%
The drug court uses its electronic database to enhance case management.	16	81.3%	18.7%
The drug court maintains paper files for some records that are critical to an evaluation.	**16**	**66.7%**	**33.3%**
Regular reporting of program statistics has led to modifications in drug court operations.	**16**	**55.6%**	**44.4%**
The results of program evaluations have led to modifications in the drug court operations.	**15**	**53.3%**	**46.7%**
The drug court has participated in more than one evaluation conducted by an independent evaluator.	**15**	**33.3%**	**66.7%**

*Valid percents are reported

Consistencies in Practice: Review of the data showed some consistency in practice across the 18 drug court sites. All of these drug courts reported that they routinely collect and report program statistics and have had at least one evaluation with an independent evaluator. The large majority of these courts has an electronic database and uses it for case management.

Variations in Practice: Review of the data also revealed some differences in practice across programs that have implications for quality of care and outcomes.

- **Reliance on paper files** – More than half of the courts were still using paper files to manage valuable information about clients. For example, records of treatment services received or the results of drug tests were maintained separately from the electronic management information system. Reliance on paper files not only impedes independent evaluation but also impedes case management and internal reporting.
- **Using data to modify programs** – Roughly half of the drug courts later modified their program in response to feedback through their internal reporting or from an independent evaluator. Would those courts that did not modify their program in response to feedback have better or worse outcomes? Courts that did not make modifications may not have needed any or these courts may have been non-responsive to feedback.
- **Participation in multiple evaluations** – Given the sampling frame, all of the drug courts had to have participated in at least one independent evaluation to be included in this analysis. However, some courts had participated in multiple studies (often using different evaluators). Does participating in multiple evaluations improve the drug court operations enough to affect outcomes?

Practices in Relation to Outcomes

Reliance on paper files. Courts that relied primarily on paper files rather than electronic files were associated with higher investment costs (29% greater than traditional court costs vs. 5% greater for those who used electronic files). This suggests that electronic files can reduce costs for the court. In addition, the reliance on paper files was associated with a lower graduation rate (47%) while those relying on electronic files had a higher average graduation rate (62%). Finally, those relying on paper files had poorer outcome results than those relying on electronic files. Figure 24 and Figure 25 illustrate the relationship between the use of paper files and graduation rate and outcome costs respectively.

Figure 24. Courts that Continued to Use Paper Files for Some Data (Rather Than Electronic Databases) had Lower Graduation Rates

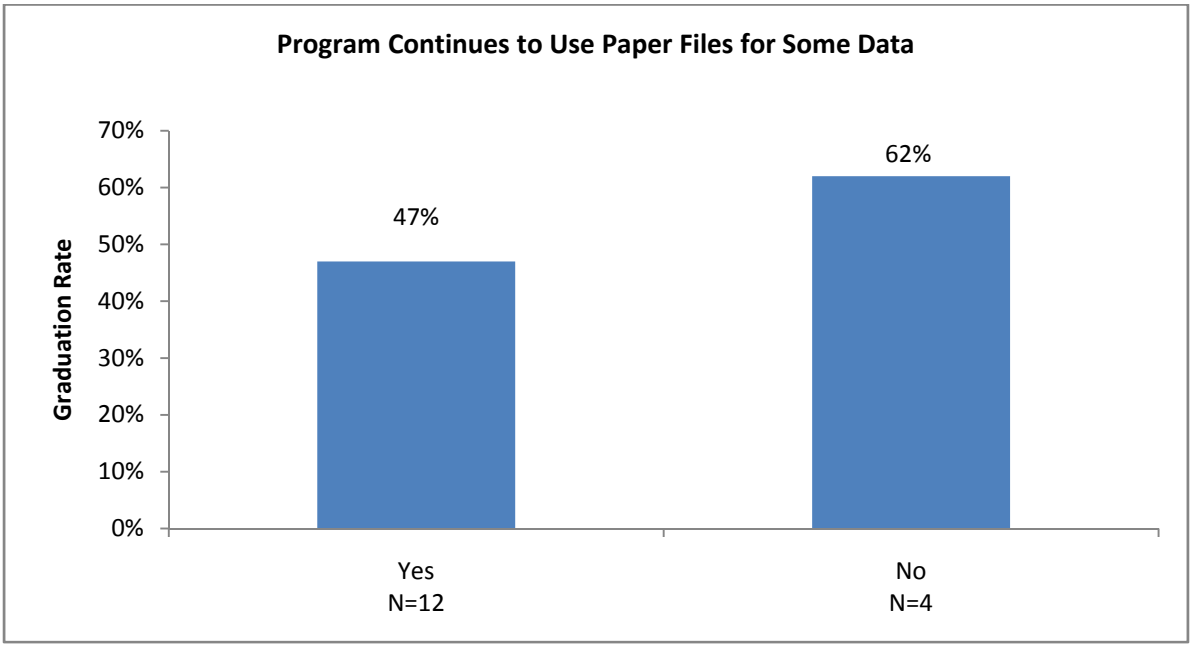
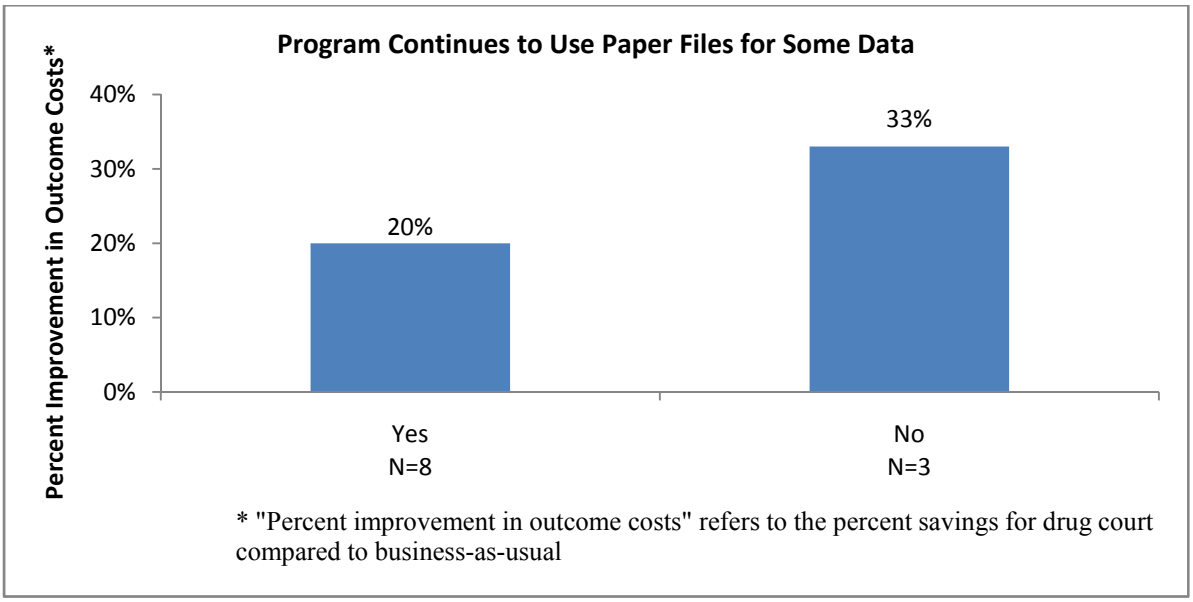


Figure 25. Courts that Continued to Use Paper Files for Some Data (Rather Than Electronic Databases) had Less Improvement in Outcome Costs (Lower Savings)

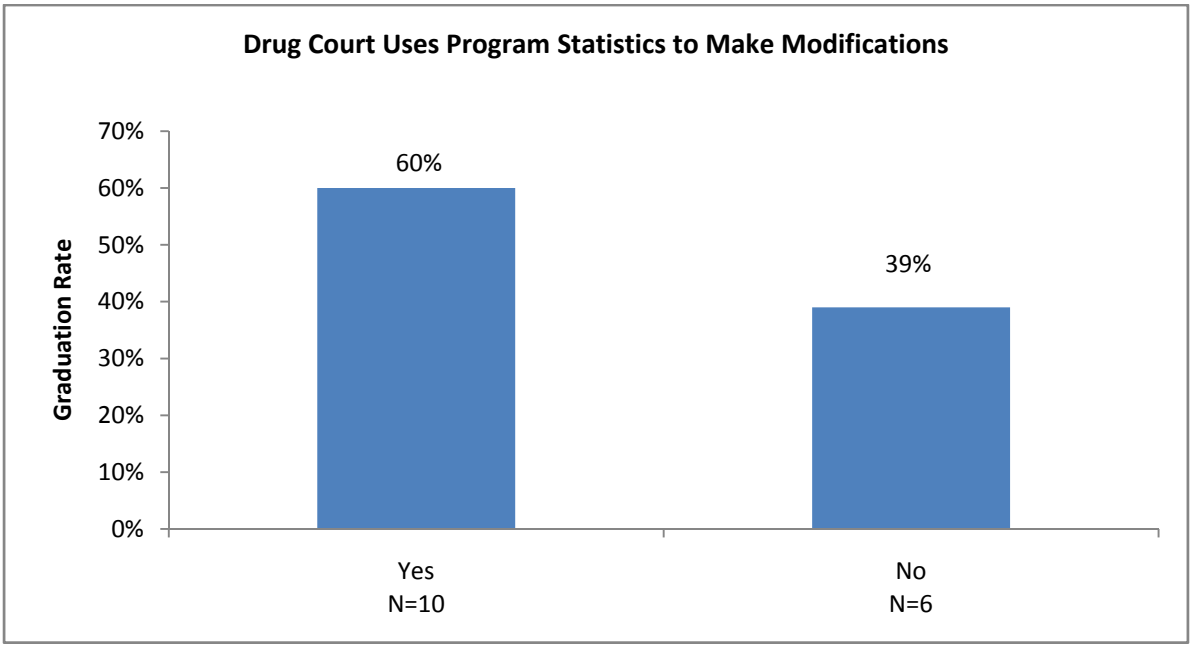


Of the 11 courts that had data available, 8 still relied on paper files for some or all of the data needed to monitor participant progress and to evaluate the program, while 3 did not. Those that relied on paper files showed a 20% improvement in lowering outcome costs relative to the cost of the comparison group. The 3 that kept all data in electronic databases, showed an average 33% improvement over their comparison groups. Maintaining data in electronic files implies some

dedication of modern resources to the dug court program as well as a certain level of organization of the program. The use of electronic files is not only more efficient for evaluation, it is also more efficient for program staff who can create progress reports from the database in less time than creating them for each participant by hand.

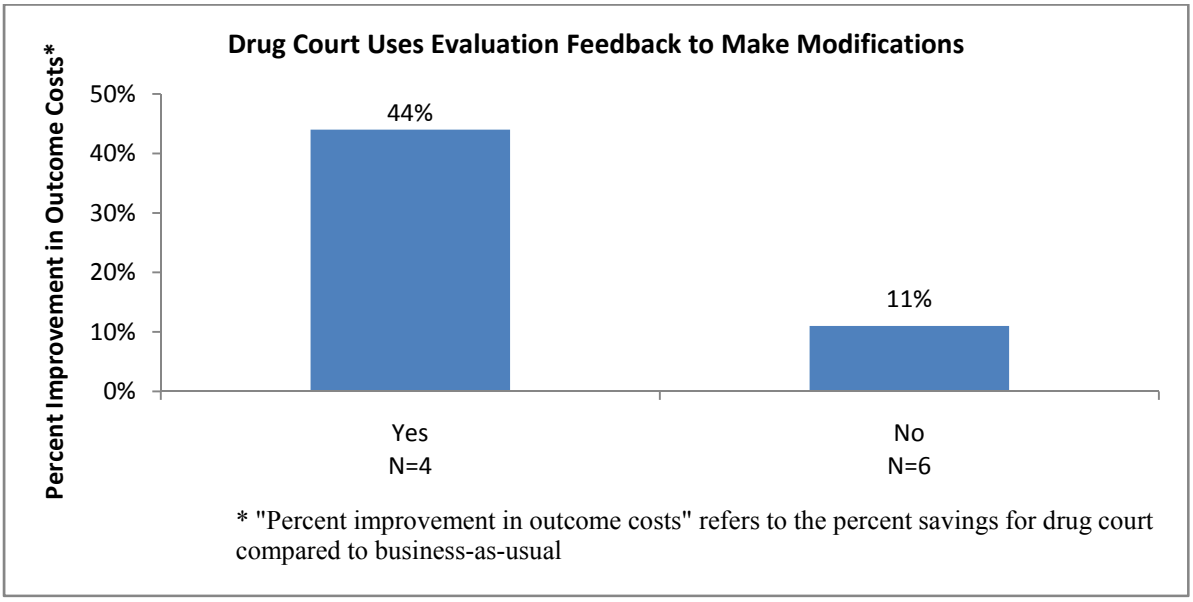
Using data monitoring and evaluation feedback to modify programs. Courts that performed regular reporting of program statistics and used these statistics to make modifications to the drug court program had higher investment costs (34% greater than comparison vs. 13% greater for those who did not). This is not surprising since making modifications to the program often incurs additional costs. However, using evaluation data to modify the program also was associated with a significantly higher graduation rate (60% vs. 39%; $p < .05$) and with substantially better results in terms of outcome costs (34% for programs that made modification compared to 13% for programs that didn't). Figure 26 illustrates the graduation rates finding.

Figure 26. Courts that Used Program Statistics to Make Modifications to the Drug Court Program Had Higher Graduation Rates



In addition, similar to the findings on program statistics and data monitoring described above, courts that used evaluation feedback to make modifications to the drug court were associated with higher investment costs (33% greater than traditional court vs. 6% for those that did not make modifications) and greater improvement in outcome costs. Figure 27 illustrates the percent improvement in outcome costs.

Figure 27. Courts That Used Evaluation Feedback to Make Modifications to the Drug Court Program Had Greater Improvement in Outcome Costs

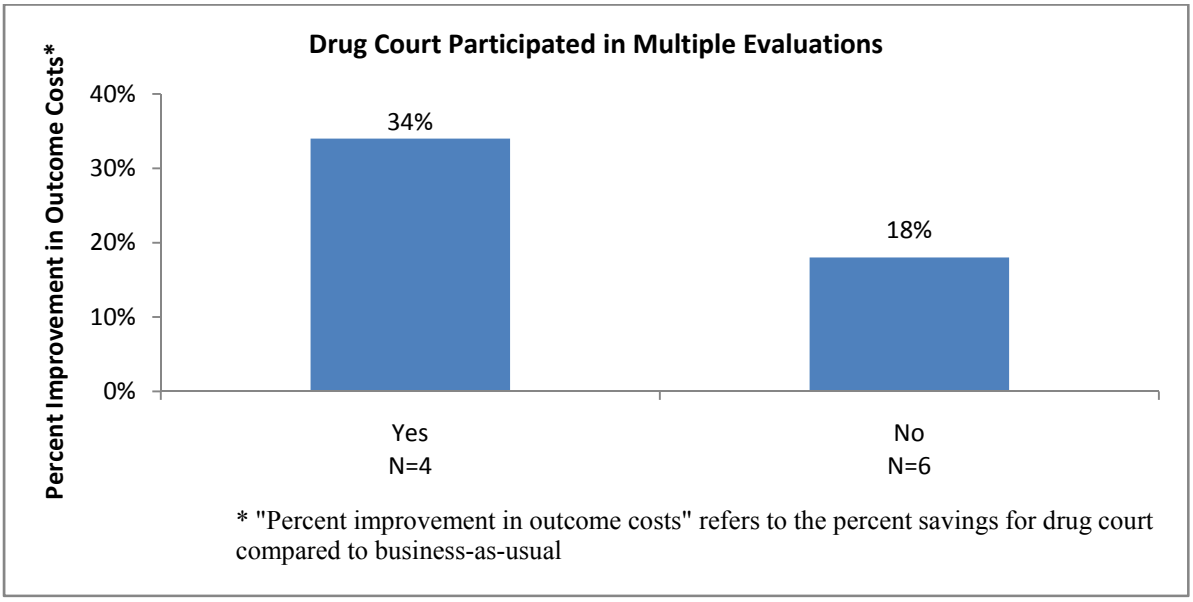


Of the 11 courts that had both practice and cost data available, 4 had used evaluation feedback on court operations to modify their program and 6 had not. Those that had used these data to modify their program showed a 44% improvement in lowering outcome costs relative to their comparison group. The 6 that did not showed only an average 11% improvement over their comparison group. This difference was statistically significant ($p < .05$).

The use of evaluation and internal program statistics to modify program process shows a willingness to learn and adjust to new information to best serve program participants. In addition, this provides evidence that the investment made in drug court program evaluation (such as evaluations required of grantees by the Bureau of Justice Assistance) did have a positive effect on program outcomes.

Participation in multiple evaluations. Participating in multiple program evaluations was not associated with higher investment costs. It is likely that the courts found outside sources of money (federal or state) to pay for these. This practice was also not associated with a difference in graduation rate. Yet, it was associated with improved outcome costs. Figure 28 illustrates the effect of multiple evaluations on percent improvement in outcome costs.

Figure 28. Drug Courts That Had Multiple Program Evaluations Had Greater Improvement in Outcome Costs (Cost Savings)



Of the 10 courts that had data on both practices and costs available, 4 had participated in multiple evaluations and 6 did not. Those that had participated in multiple program evaluations showed a 34% improvement in lowering outcome costs relative to traditional court outcome costs. The 6 that did not showed only an average 18% improvement over traditional court outcome costs.

Summary and Discussion of Key Component #8

The focus of Key Component #8 is the use of data monitoring and program evaluation to monitor program effectiveness and movement toward program goals. All of the drug courts reviewed in this paper reported that they routinely collect data and program statistics and they have had at least one evaluation. The large majority of these courts had an electronic database. However, there was variation in whether these courts continued to keep some data important for client tracking and evaluation in paper files. Further, courts varied on whether they used their data and/or feedback from outside evaluators to modify their program.

Programs that used evaluation feedback and their own internal statistics to modify their program process showed substantial benefit in improved outcome costs. It is always possible that a poor evaluation could either lead to inappropriate modifications, or result in the program choosing not to make modifications. Among the programs included in this study, however, those that made modifications based on feedback had better outcomes. In addition, programs that participated in more than one evaluation showed improved outcome costs. This illustrates the importance of the use of feedback based on program-specific data to modify and enhance drug court operations.

The use of paper files to manage data important to monitoring participant progress and to conducting program evaluation was associated with higher investment costs, lower graduation rates and less improvement in outcome costs. This demonstrates the cost effectiveness of electronic databases in tracking participant progress as well as performing evaluation.

Table 17 summarizes the practices falling under Key Component #8 that were related to outcomes.

Table 17. Key Component #8: Summary of Practices Related to Outcomes

Practice	Investment Cost	Graduation Rate	Outcome Costs
The drug court maintains paper files for some records that are critical to an evaluation.	**Higher***	**Lower***	**Negative Effect (Less Savings)**
Regular reporting of program statistics has led to modifications in drug court operations.	**Higher**	**Higher****	**Positive Effect (Savings)**
The results of program evaluations have led to modifications in the drug court operations.	**Higher***	No Effect	**Positive Effect (Savings)****
The drug court has participated in more than one evaluation conducted by an independent evaluator.	No Effect	No Effect	**Positive Effect (Savings)**

**p < .05 (statistically significant); *p < .15 (trend)

Programs that have not had evaluation, or have chosen not to use the evaluation feedback to enhance program practices, should reconsider the usefulness of including evaluation. In addition, programs that continue to keep data important to participant monitoring and to evaluation in paper files should focus on ways to move those data into electronic databases, particularly working toward ways for the treatment provider to enter data directly into the drug court database. Further, evaluators should focus their efforts on how programs can improve their services rather than focusing on the problems or issues of the program under study.

KEY COMPONENT #9: CONTINUING INTERDISCIPLINARY EDUCATION PROMOTES EFFECTIVE DRUG COURT PLANNING, IMPLEMENTATION, AND OPERATIONS

Description and Operational Definition

This component encourages ongoing professional development and training of drug court staff. Team members need to be updated on new procedures and maintain a high level of professionalism. Drug courts must decide who receives this training and how often. This can be a challenge during implementation as well as for courts with a long track record. Drug courts are encouraged to continue organizational learning and share lessons learned with new hires.

Analysis of Implementation

The following table (Table 18) describes common drug court practices that are consistent with Key Component #9. The percentages reveal the level of variation among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 18. Key Component #9 Operational Definition: Drug Court Practices

KC#9: Practice Descriptions: **Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
Members of the drug court team receive regular training on drug court practices.	18	100%	0%
Trainings are offered to team members at least once a year.	18	88.9%	11.1%
All new hires to the drug court complete a formal training or orientation.	**16**	**68.8%**	**31.2%**
In preparation for the implementation of the drug court, team members received training.	**14**	**64.3%**	**35.7%**
All members of the drug court team were provided with training.	**18**	**50.0%**	**50.0%**

*Valid percents are reported

Consistencies in Practice: Review of the data showed some consistencies in practice across drug court sites. All of the drug courts in our sample reported that at least some members of the drug court team receive regular training, and the vast majority of drug courts reported that these trainings were offered to team members at least once per year. However, our data were not detailed enough to determine what kind of training was offered to these drug court team members (e.g., on-the-job training, or training by teachers from the National Drug Court Institute, etc.).

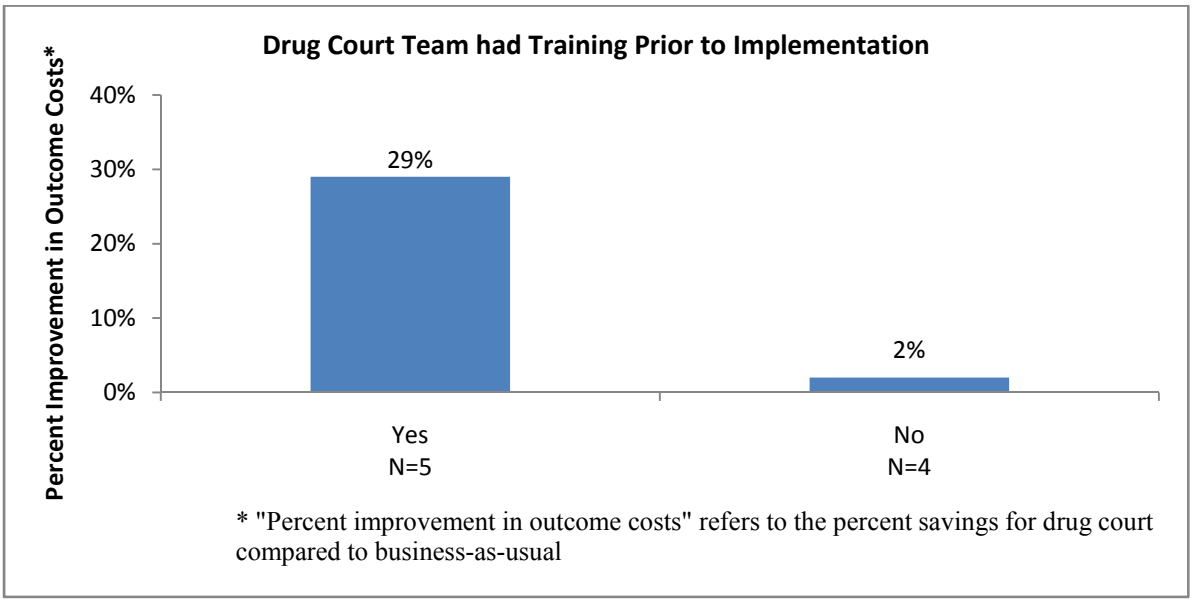
Variations in Practice: However, review of the data also revealed some differences in program practice that have implications for quality of care and outcomes:

- **Training prior to implementation** – The implementation process can set the stage for future program success. A thorough grounding in the drug court model can be invaluable to those implementing the new drug court in avoiding common mistakes and building a strong program from the start. Over one-third of the drug courts did not have their staff trained on drug court procedures prior to implementation.
- **Training of new hires** – Training in the drug court model, and in the specific role the new team member has in the drug court can help lower stress levels and allow the team member to accomplish his/her tasks more efficiently and with fewer problems. In one-third of the courts, there was no formal training program or orientation available to new hires. Staff received on-the-job training that varied considerably in quality.
- **Percentage of team receiving training** – Training for the whole team can facilitate communication and understanding. All of the drug courts had at least one team member that regularly received training; however, half could not provide training to all team members. Is it necessary for all drug court team members to be trained or will it suffice to have just a percentage of the team trained?

Practices in Relation to Outcomes

Training prior to implementation. Courts that utilized training prior to the original implementation of their drug court were associated with higher investment costs (36% greater than comparison vs. 9% greater for those who did not). This is not surprising since trainings inevitably incur additional costs. However, those programs that did utilize these trainings were associated with slightly higher graduation rates (54% for courts that had trainings vs. 49% for courts that did not) and substantially better results in terms of outcome costs. Figure 29 illustrates the connection between pre-implementation training and improvement in outcome costs.

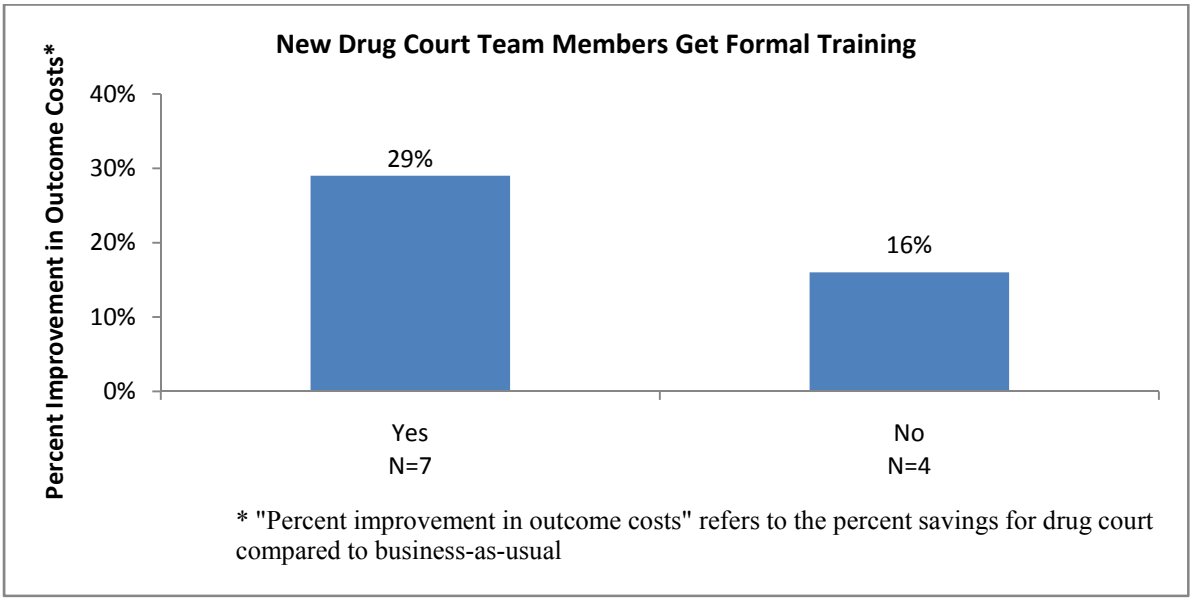
Figure 29. Drug Courts That Had Training Prior to Implementation Had Greater Improvement in Outcome Costs



Of the 9 courts that had both cost and practice data available, 5 had a training program prior to implementation; 4 did not. Those that had a training program showed a 29% improvement in lowering outcome costs relative to their comparison group. The 4 courts that did not showed only an average 2% improvement over their comparison group.

Training of new hires. Formal training for new hires was not associated with any increased investment costs or with graduation rates. However, it was associated with greater improvement in outcome costs. Figure 30 illustrates the relationship between formal training for new drug court staff and improvement in outcome costs.

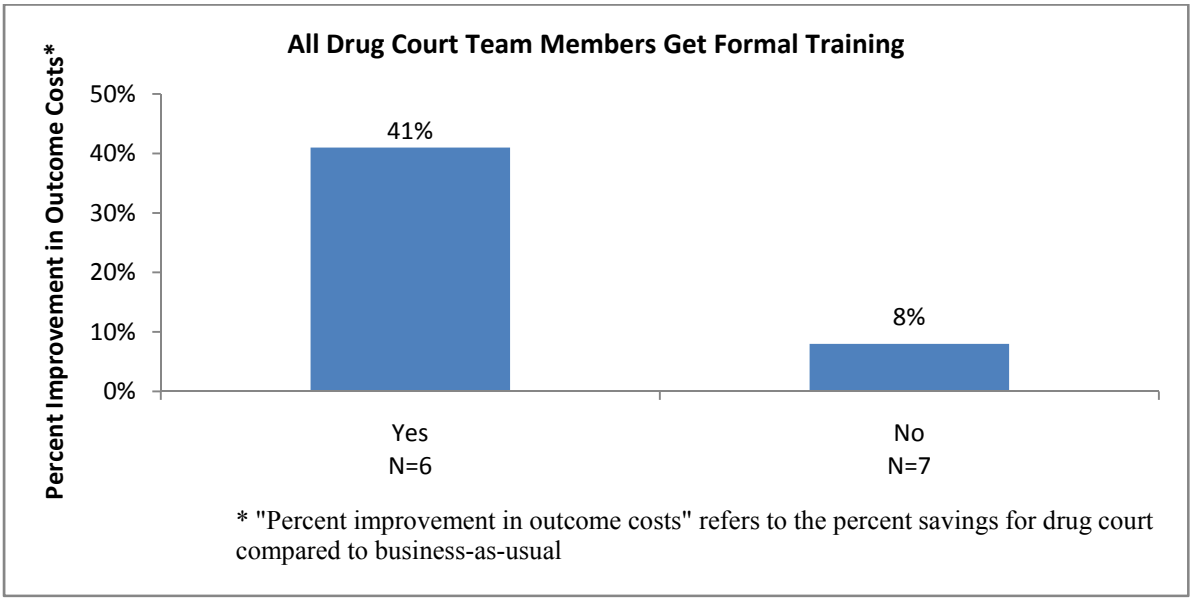
Figure 30. Drug Courts That Had Formal Training for New Hires Had Greater Improvement in Outcome Costs (Cost Savings)



Of the 11 courts that had data available, 7 had a relatively formal training program for new hires while 4 did not. Those that had a training program showed a 29% improvement in lowering outcome costs relative to their comparison group. The 4 courts that did not showed only an average 16% improvement over their comparison group. Although this difference was not statistically significant, drug courts that provided new team members with formal training had nearly twice the cost savings compared to courts that did not provide formal training.

Percentage of team receiving training. Although most programs had some staff attend trainings, not all programs send staff for formal or role specific trainings and instead prefer to train them "on the job." The provision of formal training for all team members had no clear effect on investment costs. However, having all members of the team receive training was associated with courts that had significantly better graduation rates: 63% versus 40% in those programs that did not train all staff ($p < .05$). Further, it also had a significant ($p < .05$) and substantial effect on outcome costs. Figure 31 illustrates the relationship between training for all team members and improvement in outcome costs.

Figure 31. Drug Courts That Provided Formal Training for All Team Members Had Greater Improvement in Outcome Costs (Cost Savings)



Of the 13 drug courts that had data available, all team members received training at 6 of them. Those that had all staff attend formal training showed a 41% improvement in lowering outcome costs relative to their comparison group. Those that did not, showed only an average 8% improvement over their comparison group. This difference was statistically significant ($p<.05$).

Summary of Key Component #9

The focus of Key Component #9 is on training for drug court staff. The drug courts reviewed in this study showed consistencies in some practices. All of the drug courts in our sample reported that at least some members of the drug court team receive regular training, and the vast majority of drug courts reported that these trainings were offered to team members at least once per year. However, there was also quite a bit of variation in training practices including training team members before implementing the drug court, providing formal training for new hires, and providing formal training to all drug court team members rather than just some.

Training before drug court implementation was related to higher investment costs, slightly higher graduation rates and substantially greater cost savings. Formal training for new hires was associated with greater improvement in outcome costs, and formal training for all drug court team members was associated with significantly higher graduation rates and significantly greater improvement in outcome costs. Interestingly, neither was associated with higher program investment costs.

Table 19 summarizes the practices falling under Key Component #9 that were related to outcomes.

Table 19. Key Component #9: Summary of Practices Related to Outcomes

Practice	Investment Cost	Graduation Rate	Outcome Costs
In preparation for the implementation of the drug court, team members received training.	**Higher**	**Higher**	**Positive Effect (Savings)***
All new hires to the drug court complete a formal training or orientation.	No Effect	No Effect	**Positive Effect (Savings)**
All members of the drug court team were provided with training.	No Effect	**Higher****	**Positive Effect (Savings)****

**p < .05 (statistically significant); *p < .15 (trend)

It is clear from the results described above that training of drug court staff, particularly when all team members are included, results in more positive outcomes. Drug court programs are based on practices that are somewhat unique, particularly within the criminal justice system. These practices include behavior modification techniques and non-adversarial approaches to solving problems. Most criminal justice related agency staff have never received education in these areas. An understanding of how these practices work is key to drug court staff ability to implement an effective drug court program.

KEY COMPONENT #10: FORGING PARTNERSHIPS AMONG DRUG COURTS, PUBLIC AGENCIES, AND COMMUNITY-BASED ORGANIZATIONS GENERATES LOCAL SUPPORT AND ENHANCES DRUG COURT PROGRAM EFFECTIVENESS

Description and Operational Definition

This component encourages drug courts to develop partnerships with other criminal justice and service agencies. For these collaborations to be true "partnerships," regular meetings and collaborations with these partners should occur. If successful, the drug court will benefit from the expertise that resides in all of the partner agencies. Participants will enjoy greater access to a variety of services. Drug courts must still decide with whom to partner and how formal to make these partnerships. Who will be considered as part of the main drug court team? Who will provide input primarily through policymaking? What types of services will be available to clients through these partnerships?

Analysis of Implementation

The following table (Table 20) describes common drug court practices that are consistent with Key Component #10. The percentages reveal the level of variation among the reporting drug courts. The practices with greater variation (No more than 75% of the courts use the same practice and no less than 25% use an alternative.) are bolded in the table.

Table 20. Key Component #10 Operational Definition: Drug Court Practices

KC #10: Practice Descriptions **Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court program effectiveness.** [Note: Bolded practices are those with greater variation - no more than 75% of the courts use the same practice.]	**# Courts**	**% Yes***	**% No***
The drug court team includes the judge.	18	100%	0%
The drug court team includes the drug court coordinator.	18	94.4%	5.6%
The drug court team includes a member from the Public Defender's Office.	18	88.9%	11.1%
The drug court team includes a treatment representative.	18	88.9%	11.1%
The drug court team includes a member from the District Attorney's Office.	18	83.3%	16.7%
Drug court has established formal partnerships with community agencies.	18	83.3%	16.7%
Drug court offers additional wrap-around services.	18	83.3%	16.7%
Drug court offers education and employment services.	18	77.7%	22.3%
The steering committee (policy committee) includes community representatives.	**13**	**58.3%**	**41.7%**
The drug court team includes a member from the Probation Department.	**18**	**72.2%**	**27.8%**
The drug court team includes a representative from law enforcement (not probation).	**17**	**41.2%**	**58.8%**
The drug court team includes community representatives.	18	16.7%	83.3%

*Valid percents are reported

Consistencies in Practice: Review of the data showed quite a few consistencies in practice across drug court sites. The drug courts in this sample all agreed (unsurprisingly) that a judge was a member of the drug court team. In addition, the vast majority of sites included the defense attorney, the prosecutor, and a treatment representative on the drug court team. The majority of these drug court sites also reported having formal partnerships with community agencies and providing wrap-around services from various agencies and, specifically, job and education training. However, the vast majority of drug courts did not include a community representative on the drug court team.

Variations in Practice: Review of the data also revealed a few differences in practice that have implications for quality of care and outcomes:

- **Inclusion of community representatives on steering committee** – Of those courts with a steering committee or policy committee established, a little more than half included community representatives. This strategy for including community partners was more common than having community representatives serve as members of the drug court team. Does the influence of community members lead to better care or outcomes?
- **Role of probation/law enforcement** – Probation and other law enforcement representatives are not universally included in the drug court team. Is the inclusion of probation or law enforcement beneficial to outcomes?

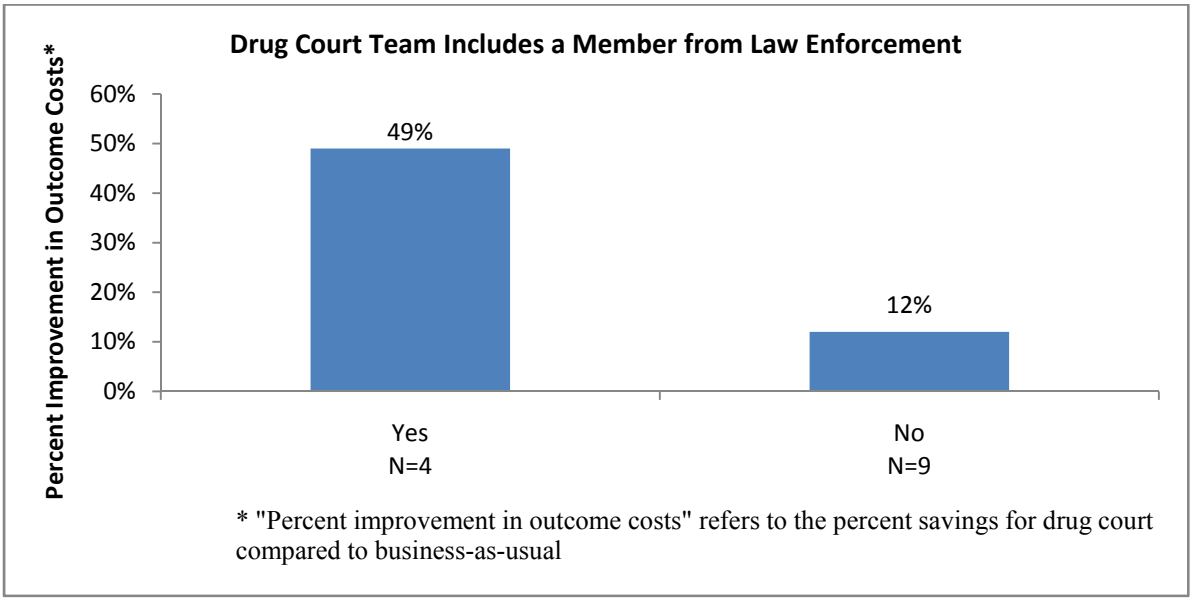
Practices in Relation to Outcomes

Inclusion of community representatives. No substantive effect was found for either investment costs or outcome costs for courts that included a representative from the community on the drug court steering committee. This practice could vary even for courts that do include a representative from the community on the steering committee. The community agency that the representative is from, and his/her role on the committee, could differ across sites. This practice should be explored further when more drug courts are available for inclusion in this analysis.

Role of probation/law enforcement. Drug courts that had a member from probation on the drug court team had slightly higher investment costs (32% vs. 18%), and slightly smaller improvement in outcome costs (19% vs. 30%) but neither of these differences was significant. This is likely an effect of the small sample size as well as the variation in roles that a probation officer can play on a drug court team. In some drug courts probation performs the role of case management, obtaining needed services for drug court participants and even providing some counseling, while in other drug courts probation acts more as law enforcement and supervision, a more punitive role. Further examination of the specific role probation plays in relation to outcomes in a larger number of courts should shed more light on this issue.

Conversely, having a member from law enforcement on the team was associated with higher graduation rates, 57% compared to 46% for those that did not have law enforcement on the team, and significantly greater improvement in outcome costs ($p<.05$). Drug court teams that included law enforcement did have significantly higher average investment cost (48% greater than comparison vs. 15% greater for those that did not) ($p<.05$). This increase in investment costs may be worthwhile given the improvement in outcome costs. Figure 32 illustrates the improvement in outcome costs associated with having a team member from law enforcement.

Figure 32. Drug Courts with a Representative From Law Enforcement on the Team Had Greater Improvement in Outcome Costs



Of the 13 courts that had both cost and practice data available, 4 had a member of law enforcement on the team; 9 did not. Those that had a member of law enforcement on the team showed a 49% improvement in lowering outcome costs relative to their comparison group. Those that did not showed only an average 12% improvement over their comparison group. It seems odd that including a team member from law enforcement would be associated with positive outcomes while including a team member from probation does not. This may be a function of the lack of clarity in the probation team member role, sometimes acting more like law enforcement and other times acting in more of a counseling role, while the role of law enforcement is more defined.

Summary and Discussion of Key Component #10

The focus of Key Component #10 is drug court program connections with multiple agencies and with the community. One way of making these connections is to include representatives from a variety of agencies on the drug court team. Most drug courts include a judge, both defense and prosecuting attorneys, and a coordinator who may work for the court or probation (or possibly a treatment agency). Other agency and community representatives are included less consistently. While some courts include a representative from probation and law enforcement on the team, others do not. Very few drug courts include a representative from a community service agency on the drug court team or on the steering committee.

Including a representative from a community service organization on the drug court team was not associated with investment costs, graduation rates, or outcome costs. Because the type of community representative on the team can vary widely, it is likely that the effect is not measurable in this sample size. Further examination of this issue in a larger number of courts will provide more information.

The inclusion of a representative from probation on the drug court team was associated with higher investment costs, and with slightly lower improvement in outcome costs, but was not associated with graduation rate. It makes sense that adding a team member will increase program

costs. However, the role of probation on a drug court team varies from more traditional monitoring to case management (including referrals to needed services) to running treatment sessions. Because of this variation it may not be possible to determine the actual effects of a probation representative on program outcomes in a sample of this size.

Including law enforcement on the drug court team is practiced more rarely but is clearly associated with more positive outcomes. Working on the street, law enforcement can contribute a unique perspective to the drug court team. Law enforcement can improve referrals to the program and can extend the connection of the drug court team into the community for further information gathering and monitoring of participants (e.g., in the form of home visits). This all contributes to positive outcome costs.

Table 21 summarizes the practices consistent with Key Component #10 that were related to outcomes.

Table 21. Key Component #10: Summary of Practices Related to Outcomes

KC #10: Practice Descriptions	Investment Cost	Graduation Rate	Outcome Costs
The drug court team includes a member from the Probation Department.	**Higher**	No Effect	**Less Positive**
The drug court team includes a representative from law enforcement (not probation).	**Higher****	**Higher**	**Positive Effect (Savings)****

**p < .05 (statistically significant); *p < .15 (trend)

The results associated with practices within Key Component #10 suggest that it is important for drug court teams to consider carefully the agencies or organizations that may be represented on the team. These results also suggest that there would be some benefit in clarifying the role of each member of the drug court team. In general, in order to engage key stakeholders and to gain support from the agencies involved with drug court participants and from the community, it is important to include as many as possible in discussions and decisions about the drug court.

LIMITATIONS & STRENGTHS

LIMITATIONS

This methodology offers certain strengths and limitations that should be considered by the readers. The sample of drug courts used in this study is not random (as they were those that, over time, someone had paid NPC Research to study), so there may be limits to the generalizability of the results. However, the drug courts described in this study were evaluated by NPC for a variety of different reasons (e.g., the drug court received a grant that required evaluation, the drug court agreed to participate in a research study by NPC, the drug court was required by the state to participate in evaluation), therefore there is no specific similarity in the way these courts were chosen for the analysis.

The operationalization of the 10 Key Components was limited to what was observed as actual practices at drug court sites evaluated by NPC Research and does not necessarily cover every practice that might fall under a particular component. However, since these observations were based on NPC's understanding of the 10 Key Components, and the interview questions that NPC asked each court were also based on the 10 Key Components, we believe that these practices include many of those relevant to each component. In addition, because there are no agreed upon definitions of the 10 Key Components, we believe these descriptions are helpful to those concerned with implementing or measuring the 10 Key Components in the field. The descriptions offered are intended to help develop a dialogue about how best to implement these guidelines.

The process data collected from the participating sites were collected over time (2000-2006) and do not reflect one specific time period. However, NPC Research does not evaluate a drug court program's procedures until the program has been in operation for at least one year. In most cases, the time lapse is even greater. This allows the drug court program enough time to firm up its procedures and for the program to stabilize. For this reason, we believe most of the processes presented in this chapter have not changed significantly since our evaluation. Whether or not a few changes have taken place since data collection, the findings still accurately reflect the program at one point in time.

In our analyses of the relationship between program practices and outcomes, we did not run any control variables for differences among the sites in demographics, criminal histories, drug of choice, or community characteristics. The imposition of such controls will be more fitting in the larger study we hope to implement in the next year or so. (It should be noted, however, that we found no relationship between site differences on these characteristics and any of our outcome measures.). Further, we did not examine the combined effects of multiple practices. It is likely that there are both mediating and moderating effects of various practices upon other practices. This sort of analysis will also be more fitting in a larger study with a larger number of drug courts. Finally, the relationship of the existence of these individual practices to outcomes is simply an association and not definitive results. We can conclude that the presence of a practice coincides with overall positive results for the drug court, but cannot say the extent to which any given practice is the cause of those results.

For the reasons stated above, we do not view these results as providing final answers on what constitutes "best practices" in a drug court and the reader is warned not to interpret them this way. Nonetheless, we believe these results provide some information on "promising" practices, especially those with large and/or significant effects.

STRENGTHS

This study provides a comparison of evaluation and research results using the same methodology and the same measures in the largest number of drug courts in any one study to date. Despite the limitations of the drug court sample described above, the participating courts do represent a variety of geographic areas (four states on both the East and West coasts of the United States and one U.S. territory and includes both rural and urban sites). The participating courts also have varying service capacity and populations served. It is rare to have such a large number of participating drug courts – all of which have been evaluated by the same research team and methods. The results explore issues that are highly relevant and useful to the growing number of drug courts across the country. These results represent one of the most comprehensive attempts to examine what Goldkamp, White, and Robinson (2001) described as "inside the black box" of drug courts.

In addition, this study was designed to, and succeeds in, addressing several outstanding questions surrounding drug courts including how the 10 Key Components are being operationalized in a variety of programs. This study also demonstrates how much variation in practice exists among drug courts in their implementation of the 10 Key Components. In addition, this study describes the relationship between the specific practices and three outcome measures: graduation rate, investment costs in drug court, and improvement in outcome costs.

SUMMARY

There are three main policy questions that are the focus of this paper.

1. How do drug courts operationalize the 10 Key Components? What practices do they use?
2. Which practices are consistently implemented and which practices have considerable variation across drug court sites?
3. How do the practices implemented in various drug courts relate to outcomes including investment costs, graduation rate and outcome costs (costs associated with criminal justice recidivism)?

This section summarizes the results for these policy questions.

POLICY QUESTIONS #1 AND #2

How do drug courts implement the 10 Key Components? And which practices are consistently implemented and which practices have considerable variation across drug court sites?

Given the rapid expansion of drug courts across the country, there has been interest in standardizing the drug court model. The National Association of Drug Court Professionals led this effort in its groundbreaking publication, *Defining Drug Courts: The Key Components* (National Association of Drug Court Professionals, 1997). In this work, they prescribe 10 operational characteristics that all drug courts should share as benchmarks for performance. These include practices such as, drug testing, judicial interaction with participants, and the integration of alcohol and other drug treatment services with justice system case processing.

Today, the 10 Key Components are well established and ubiquitous among drug court systems. However, the key components are essentially guidelines for implementation and leave much room for each drug court's interpretation. For example, the key components prescribe frequent drug testing of participants but do not specify the preferred method of testing or define "frequent." They prescribe independent evaluations and periodic staff trainings; however, the frequency of these activities is not addressed nor is the type of evaluation or training. In practice, each drug court's adherence to the 10 Key Components may look very different.

It is important to understand how drug courts are defining the 10 Key Components and implementing these practices. This information is helpful to emerging courts that may be searching for pre-existing policies or practices upon which they can model their program. For courts already in operation, this information offers the opportunity to glimpse how other courts are operating and whether their model is consistent with the majority.

When we began evaluating the sites we examined them carefully for indicators that they were following these components. The result was the following operationalization of the 10 Key Components that we then continued to use as we evaluated the operation of each court.

Below is a listing of each of the 10 Key Components and the operationalized practices that we determined from our observation of the 18 courts in this study (and that we have seen in multiple other courts we have evaluated).

It is important to examine both which indicators were consistently implemented as well as those with considerable variation. Consistent implementation suggests the areas that are beginning to become the core practices that define a drug court; and for those starting a drug court, these

emerging practices and protocols provide helpful guidance. Variation in practice has many implications including the need for the drug court to be flexible in meeting the needs of its population and/or a lack of education in potential drug court practices. Variation also allows the examination of practice in relation to outcomes to determine promising drug court practices. The practices are those that were consistently implemented across the drug courts in this sample; that is, 75% or more of the 18 drug courts implemented these practices. In Table 22, the practices in bold are the practices that had considerable variation between sites. Fewer than 75% of the courts performed this practice the same way.

Table 22. Practices and Variations in Practice Within Key Component #1

Drug Court Practices for KC #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing.
The drug court uses a central intake for treatment.
Drug court participants are offered group counseling.
Drug court participants are required to participate in support groups (e.g., AA, NA).
At least one treatment representative is a member of the drug court team.
The treatment representative is expected to attend all drug court team meetings (staffings).
Drug court has established formal partnerships with community agencies.
Drug court participants are offered individual counseling.
The treatment provider regularly provides the court written progress reports.
At least one treatment representative is a member of the drug court steering committee/policy committee.
The treatment representative is expected to attend all drug court sessions.
Drug court has more than one treatment agency available to participants.

Note: Bolded practices are those that varied between programs (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 23. Practices and Variations in Practice Within Key Component #2

Practices for Key Component #2: *Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.*
Drug court uses a reduction or the elimination of potential jail time as an incentive.
The prosecution/defense presents a united front to clients in court.
The defense attorney is expected to attend all drug court sessions.
The defense attorney is expected to attend drug court team meetings (staffings).
Participants are admitted into the program only post-plea or post-conviction.
The prosecution is expected to attend all drug court team meetings (staffings).
The prosecution is expected to attend all drug court sessions.
Drug court allows non-drug charges.
The drug court allows both felonies and misdemeanors (rather than targeting felony charges).
Unsuccessful participants receive their original sentence.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 24. Practices and Variations in Practice within Key Component #3

Key Component #3 Practices *Eligible Participants are identified early and promptly placed in the drug court program.*
Drug court uses a reduction or the elimination of potential jail time as an incentive to enroll and to complete the program.
Use of Central Intake for treatment referral
Eligibility requirements have been agreed upon and written down.
Participants are admitted into the program only post-plea or post-conviction.
The drug court expects 20 days or less to pass from a participant's arrest and drug court entry.
Drug court maintains a caseload of fewer than 150 clients.
The drug court allows both felonies and misdemeanors (see KC#2).
Drug court allows non-drug charges (see KC#2).
Drug court uses a substance abuse screen to determine eligibility.
Drug court uses a mental heath screen to determine eligibility.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 25. Practices and Variations in Practice Within Key Component #4

KC #4 Practice Description *Drug courts provide access to a continuum of alcohol, drug and other treatment and rehabilitation service.*
Drug court participants are offered group drug and/or alcohol counseling.
The drug court provides treatment through a series of phases.
Drug court participants are required to participate in support or self-help groups (e.g., AA, NA).
Drug court has established formal partnerships with community agencies.
Drug court offers additional wrap-around services (not including education/employment services).
Drug court offers education and employment services.
Drug court participants are offered individual counseling.
Drug court program is expected to take one year or less to complete.
Drug court has guidelines on the frequency of group treatment sessions that a participant must receive.
Drug court offers aftercare to graduating clients after they exit the program.
Drug court has guidelines on the frequency of individual treatment sessions that a participant must receive.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 26. Practices and Variations in Practice Within Key Component #5

KC #5 Practice Descriptions *Abstinence is monitored by frequent alcohol and other drug testing.*
Drug court collects tests on a random basis.
Urinalysis tests are used.
Breath tests are used.
Bracelet monitoring is used as a drug testing method.
Hair tests are used drug testing method.
Blood tests are used drug testing method.
In the first phase of drug court, tests are collected at least 2 times per week.
Drug court uses a call-in system to ensure that drug tests are administered at random.
Drug court staff usually has the drug test results within 48 hours.
Drug court expects a client to have greater than 90 days of negative drug tests before graduation.
The treatment agency is solely responsible for the collection of samples.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 27. Practices and Variations in Practice Within Key Component #6

KC #6 Practice Descriptions *A coordinated strategy governs drug court responses to participants' compliance.*
Drug court uses incarceration as a sanction.
Drug court uses graduated sanctions.
Participants are provided with written descriptions of drug court policies or rules of conduct.
Drug court will offer small gifts or gift certificates as a reward.
There are clear/written "rules" regarding compliance and team responses.
Drug court will impose sanctions in advance of a client's regularly scheduled court hearing.
Drug court decreases the frequency of future treatment sessions as a reward.
Drug court uses increased support group attendance as a sanction.
Only the judge can provide clients with tangible rewards.
Only the judge can dispense sanctions to clients.
Drug court decreases the frequency of future drug testing as a reward.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 28. Practices and Variations in Practice Within Key Component #7

KC #7 Practice Descriptions *Ongoing judicial interaction with each participant is essential.*
The judge is expected to attend every drug court session.
The judge is expected to attend "staffings" (team meetings where participant progress is discussed).
The judge is expected to attend all policy meetings (steering committee meetings).
The judge receives written progress reports on participants.
The judge is assigned to drug court for a term of greater than 2 years (or indefinitely).
In the final phase of drug court, the clients appear before the judge in court at least once per month.
Only the judge can provide clients with tangible rewards.
Only the judge can impose sanctions to clients.
When clients first begin drug court, they appear before the judge in court once per week.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 29. Practices and Variations in Practice Within Key Component #8

KC #8 Practice Description *Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.*
Drug court staff routinely collects and reports program statistics.
The drug court has participated in evaluations conducted by an independent evaluator.
Drug court maintains an electronic database for monitoring clients.
The drug court uses their electronic database to enhance case management.
The drug court maintains paper files for some records that are critical to an evaluation.
Regular reporting of program statistics has led to modifications in drug court operations.
The results of program evaluations have led to modifications in the drug court operations.
The drug court has participated in more than one evaluation conducted by an independent evaluator.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 30. Practices and Variations in Practice Within Key Component #9

KC#9: Practice Descriptions *Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.*
Members of the drug court team receive regular training on drug court practices.
Trainings are offered to team members at least once a year.
All new hires to the drug court complete a formal training or orientation.
In preparation for the implementation of the drug court, team members received training.
All members of the drug court team were provided with training.

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

Table 31. Practices and Variations in Practice Within Key Component #10

KC #10: Practice Descriptions *Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court program effectiveness.*
The drug court team includes the judge.
The drug court team includes the drug court coordinator.
The drug court team includes a member from the Public Defender's Office.
The drug court team includes a treatment representative.
The drug court team includes a member from the District Attorney's Office.
Drug court has established formal partnerships with community agencies.
Drug court offers additional wrap-around services.
Drug court offers education and employment services.
The drug court team includes community representatives.
The steering committee (policy committee) includes community representatives.
The drug court team includes a member from the Probation Department.
The drug court team includes a representative from law enforcement (not probation).

Note: Bolded practices are those that varied between program (were implemented in less than 75% of the drug courts). Non-bolded practices were consistent (implemented in 75% or more of the drug courts).

It is clear from the above tables that there are a variety of practices included under these components. There are quite a number of practices that are consistently implemented among drug courts. However, there are some practices that show considerable variation among the courts in this sample, and these are the practices that may be the most fruitful in determining promising or best practices for drug courts. While consistent implementation is desirable, it is the variation among sites that is the source of innovation and allows us to examine the relationship of variability to outcomes, allowing us to look for promising practices.

However, it is important to acknowledge that what is a best practice in one drug court context may not be in others. Participant populations differ in drug of choice, level of addiction, legal issues, and life issues such as employment, education, and health needs. One of the strengths of the drug court model is its flexibility. Drug courts must remain flexible in practices so as to best fit their participants, their relationships among the collaborating agencies, and their environment.

POLICY QUESTION #3:

How do the practices implemented in various drug courts relate to outcomes?

There were several drug court practices that showed substantial, and sometimes statistically significant, relationships with the three outcomes examined in this study: investment costs, graduation rate, and outcome costs related to criminal justice recidivism. It was difficult to interpret practices that were related to either higher or lower investment costs. It would seem important to attempt to keep the investment costs lower, however, if the practice that is

associated with higher investment costs is also related to better graduation rates and greater cost savings, spending a little more may not be a bad choice. Similarly, if a practice has lower investment costs but is not associated with better graduation rates or better cost outcomes, then the lower investment costs may not be worthwhile. Graduation rate, although not perfectly correlated, was highly related to lower outcome costs (lower recidivism) and therefore to greater cost savings. For the most part, practices related to higher graduation rate, also had improved outcome costs. The only exception was the use of sanctions in advance of a regularly scheduled court hearing. This was related to higher graduation rate but not to improved outcome costs. However, there were several practices that were related to improved outcome costs but did not appear to be related to graduation rate.

What interests many individuals, particularly policymakers, is the bottom line: what practices save money and otherwise result in the most positive outcomes.

The following table lists all the practices in this paper that were related to greater improvement in outcome costs (that is, larger cost "savings" due to lower recidivism).

Table 32. Adult Drug Court Practices Related to "Cost Savings" (Costs Avoided)

Practices Related to Positive Cost Outcomes
The drug court has a single treatment provider (that can make referrals to other treatment as needed).
The treatment representative is expected to attend all drug court sessions.
The prosecution is expected to attend all drug court team meetings (participant progress meetings).
The prosecution is expected to attend all drug court sessions.
The defense attorney is expected to attend drug court team meetings (participant progress meetings).
The drug court allows non-drug charges.
The drug court expects 20 days or less to pass from a participant's arrest to drug court entry.
The drug court maintains a caseload of less than 150 clients.
The drug court program is expected to take one year or more for participants to complete.
Drug court has guidelines on the frequency of group treatment sessions that a participant must receive.
Drug court has guidelines on the frequency of individual treatment sessions that a participant must receive.
In the first phase of drug court, tests are collected at least 2 times per week.
Drug court staff generally has drug test results within 48 hours.
The drug court requires participants to have greater than 90 days "clean" before graduation.
The drug court decreases the frequency of future treatment sessions as a reward.
Only the judge can provide clients with tangible rewards.
The judge is assigned to drug court for a term greater than 2 years (or indefinitely).
In the first phase of drug court, participants appear before the judge in court once every 2 weeks or less.
In the final phase of drug court, the clients appear before the judge in court at least once per month.
The drug court maintains data that are critical to monitoring and evaluation in an electronic database (rather than paper files).
The drug court collects program statistics and uses them to modify drug court operations.
The drug court uses the results of program evaluations to modify drug court operations.
The drug court has participated in more than one evaluation conducted by an independent evaluator.
Team members received training in preparation for the implementation of the drug court.
All new hires to the drug court complete a formal training or orientation.
All members of the drug court team are provided with training.
The drug court team includes a representative from law enforcement (not including probation).

The practices listed in Table 32 are promising practices in that they are related to avoided costs due to lower recidivism. These practices represent a beginning to the research necessary to determine best practices for drug courts. However, it is important to remember that different drug courts serve different populations and work in different contexts. What is a best practice for one court may not be a best practice in all courts. This is discussed further in the conclusion. Future research, in a larger number of drug courts, should focus on best practices for specific participant populations and within specific contexts. Doug Marlowe has performed some of this work, such as the effect of judge supervision in offenders of different risk levels (Marlowe et al., 2006).

Themes Outside of the 10 Key Components

Examination of these practices from different perspectives reveals new and interesting information. For example, the practices that appeared associated with better cost outcomes can also be organized into several different themes aside from the key components. These themes are described as follows.

DRUG COURT TEAM INVOLVEMENT

- The treatment representative is expected to attend all drug court sessions.
- The prosecution is expected to attend all drug court team meetings (staffings).
- The prosecution is expected to attend all drug court sessions.
- The drug court team includes a representative from law enforcement (not probation).

The emerging theme in this case is that those drug courts that have high expectations for the involvement of critical players in the criminal justice system tend to have better outcomes (more avoided taxpayer costs) down the road.

Another way to illustrate this is by examining the distribution of these practices among the three courts in our sample that had the most positive outcome results and comparing to the practices of courts with the three least positive outcome results. Table 33 illustrates this.

Table 33. Drug Court Team Involvement in Drug Courts With the Best (B) and Worst (W) Outcomes

Practice	Court B1	Court B2	Court B3	Court W1	Court W2	Court W3
The treatment representative is expected to attend all drug court sessions.	y	y	y	n	N	n
The prosecution attends team meetings.	y	y	y	n	N	n
The prosecution attends drug court sessions.	y	n	y	n	N	n
The drug court team includes a representative from law enforcement (not probation).	y	y	y	n	N	n
Improvement in outcomes	62%	52%	50%	4%	-3%	-44%
Graduation rate	68%	68%	65%	27%	55%	25%

The pattern that emerges is clear. The courts with the best results require these key criminal justice system players to be an active part of the drug court team, while those that have the worst results do not.

TREATMENT GUIDELINES

- Drug court has guidelines on the frequency of group treatment sessions that a participant must receive.
- Drug court has guidelines on the frequency of individual treatment sessions that a participant must receive.

Drug courts debate whether the treatment provider should be free to individualize a treatment plan or whether the court should impose strict guidelines. These data suggest that strict guidelines may be associated with better outcome results. This is illustrated by examining the distribution of these practices among the three courts in our sample that had the most positive outcome results and comparing with the practices of the courts with the three least positive outcome results (see Table 34).

Table 34. Treatment Guidelines in Drug Courts with the Best and Worst Outcomes

Practice	Court B1	Court B2	Court B3	Court W1	Court W2	Court W3
Drug court has guidelines on the frequency of group treatment sessions that a participant must receive.	y	y	y	na	n	n
Drug court has guidelines on the frequency of individual treatment sessions that a participant must receive.	y	y	n	n	n	n
Improvement in outcomes	62%	52%	50%	4%	-3%	-44%
Graduation rate	68%	68%	65%	27%	55%	25%

Once again, the pattern is clear. Those drug courts with the best outcomes also provided guidelines on the frequency of treatment sessions.

COLLECTION AND USE OF DATA

- The drug court maintains paper files for some records that are critical to an evaluation.
- Regular reporting of program statistics has led to modifications in drug court operations.
- The results of program evaluations have led to modifications in the drug court operations.
- The drug court has participated in more than one evaluation conducted by an independent evaluator.

Collecting and using data to improve drug court operations has long been touted as important for evaluation and for policymakers. These data are suggestive that such activities may also be associated with better outcome results. Another way to illustrate this is by examining the distribution of these practices among the three courts in our sample that had

the best outcome results and comparing to the practices in the three courts with the worst outcome results (see Table 35).

Table 35. Data Collected and Used in Drug Courts with the Best (B) and Worst (W) Outcomes

Practice	Court B1	Court B2	Court B3	Court W1	Court W2	Court W3
The drug court maintains paper files for some records that are critical to an evaluation.	y	n	n	y	y	y
Regular reporting of program statistics has led to modifications in drug court operations.	y	y	y	na	y	n
The results of program evaluations have led to modifications in the drug court operations.	y	y	y	n	n	n
The drug court has participated in more than one evaluation conducted by an independent evaluator.	n	y	y	na	n	n
Improvement in outcomes	62%	52%	50%	4%	-3%	-44%
Graduation rate	68%	68%	65%	27%	55%	25%

A clear pattern emerges suggesting that collection and use of data, whether through program evaluation or on-site continuous data collection, is associated with better outcome results.

TRAININGS

- All new hires to the drug court complete a formal training or orientation.
- In preparation for the implementation of the drug court, team members received training.
- All members of the drug court team were provided with training.

The National Association of Drug Court Professionals (NADCP) has long emphasized drug court trainings. These data are suggestive that such activities may be associated with better outcome results. Another way to illustrate this is by examining the distribution of these practices among the three courts in our sample that had the best outcome results and comparing to the practices of courts with the three worst outcome results (see Table 36).

Table 36. Training in Drug Courts with the Best and Worst Outcomes

Practice	Court B1	Court B2	Court B3	Court W1	Court W2	Court W3
All new hires to the drug court complete a formal training or orientation.	y	n	y	na	y	n
In preparation for the implementation of the drug court, team members received training.	y	na	y	na	n	n
All members of the drug court team were provided with training.	y	y	y	n	n	n
Improvement in outcomes	62%	52%	50%	4%	-3%	-44%
Graduation rate	68%	68%	65%	27%	55%	25%

In the case of early implementation, some of our more effective drug courts may have been too old to have had this training available. Yet, in general, this table suggests that training is associated with better outcome results.

DRUG TESTING

- In the first phase of drug court, tests are collected at least 2 times per week.
- Drug court staff usually have the drug test results within 48 hours.
- Drug court expects a client to have greater than 90 days of negative drug tests before graduation.

All of these practices are associated with better outcomes. However, no patterns emerged in our courts with the best and worse outcomes.

GENERAL STRUCTURE

- Drug court allows non-drug charges.
- Unsuccessful participants receive their original sentence.
- Drug court maintains a caseload of fewer than 100 clients.
- Drug court program is expected to take one year or more to complete.
- Drug court decreases the frequency of future treatment sessions as a reward.
- Only the judge can provide clients with tangible rewards.

This is a miscellaneous category but all practices show promise for further research.

This study has identified promising practices that vary among sites and appear to be associated with outcome measures which can help guide further research. We look forward to an expanded study to examine these practices further.

CONCLUSION

Our analysis revealed that despite the availability of benchmarks through the National Association of Drug Court Professionals, drug courts still have a lot of discretion in how they implement the 10 Key Components. Under each of the 10 components, there were both similarities and differences in how drug courts were operated. Differences across drug courts are expected and should not be misinterpreted as negative findings. The drug court model is flexible and courts have been encouraged to tailor aspects of their programs to better meet the needs of their populations. However, the identification of any variation in practice is still very helpful to researchers. A thorough understanding of the drug courts' procedures helps increase awareness of the unique aspects of the programs (Belenko, 2001). It may also help explain why some drug courts are more effective than others.

As the population of drug courts continues to develop, more is being learned about how they operate and how their participants have progressed. The growth of this knowledge base has been encouraged through Key Component #8, "*Monitoring and evaluation measure the achievement of program goals and gauge effectiveness*." As outcome information accumulates, it will be possible to explore how variations in practice could affect the quality of care provided and ultimately program outcomes. This paper serves as a starting point for those analyses by compiling qualitative (and quantitative) data from a large cross-section of 18 drug courts. We have taken the first step and identified drug court practices that significantly differ across sites from those with little variation and performed some exploration of how these variations may impact program outcomes. Since these practices vary by courts, they may be partly responsible for the variation in outcomes observed.

Relatively little is known about which implementation strategies are preferable. Marlowe, Festinger, Dugosh, and Lee (2005) have in the last few years started to examine specific drug court practices using carefully controlled research designs. Yet, these systematic attempts have only just begun and more knowledge is needed about which practices hold the most promise for this kind of research. There have been only a handful of meta-analyses and systematic reviews of drug courts and the majority have focused on questions of recidivism and retention (Latimer, Morton-Bourgon, & Chretien, 2006; Shaffer, 2006; Government Accountability Office, 2005; Huddleston, Freeman-Wilson, Marlowe, & Roussell, 2005; Belenko, 2001). Most analyses have concluded that drugs courts are reducing recidivism for drug court participants when compared to a similar comparison group; however, the size of reduction varies across courts.

There have been very few attempts to link process data to recidivism rates. Shaffer (2006) found preliminary evidence that some program characteristics moderate program effectiveness. These include some of the measures identified in this review including: 1) length of program, 2) whether program eligibility was determined pre- or post-plea, and 3) staff attendance at team meetings. Latimer et al. (2006) also linked the length of the drug court program to recidivism rates. However, most large-scale reviews of the drug court literature have been hindered in linking process and outcome data by: 1) a lack of available process information, 2) inconsistent reporting of process data across sites, and 3) small sample sizes. We experienced these difficulties firsthand in coding the qualitative data collected for this sample of 18 drug courts. While the same research organization performed all of the process evaluations, there were still significant amounts of data coding that had to be completed before a cross-site comparison was

possible. This was largely due to staffing changes and the evolution of our research methodology over time. For compilations across research organizations, these challenges are multiplied.

Future research linking process and outcome data across the population of drug courts should benefit from recent efforts to standardize evaluations through the development of performance measures (Heck, 2006), although further and more specific definitions could continue to develop. With more uniform and valid reporting, future meta-analyses will be in a better position to answer some of the questions raised in this paper.

In the meantime, with the results presented in this paper, we have begun the task of operationalizing the 10 Key Components through describing practices performed in operating drug courts. We have also described some emerging trends in the impact of different practices on drug court outcomes in areas previously described as a "black box" (Belenko, 2001; Goldkamp, White, & Robinson, 2001).

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