

DRUG COURT REVIEW

Volume V, Issue 1

**NATIONAL DRUG COURT INSTITUTE
ALEXANDRIA, VIRGINIA**



DRUG COURT REVIEW

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NATIONAL DRUG COURT INSTITUTE

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INTRODUCTION

The Editorial Board is pleased to present the first issue of volume five of the *Drug Court Review* (Volume V, 1). This issue of Volume V examines three important areas to the drug court field: *how expungement is dealt with in drug court, the detection window for cannabinoid testing, and further research and evaluation on drug court programs*. Each of these areas has a critical impact on drug courts throughout the United States.

These issues, and the information we are able to uncover about them, are important to the continued development and evolution of the drug court model.

In this issue:

- ◆ David S. Festinger, Ph.D., David S. DeMatteo, J.D., Ph.D., Douglas B. Marlowe, J.D., Ph.D., and Patricia A. Lee, M.S., take a look at the issue of charge expungement in drug court. Long thought to be a primary “carrot” for the inducement of drug court participation, this article examines the extent to which: expungement is a primary motivator for involvement; clients take advantage of their right to expungement after graduation; courts facilitate the expungement process.
- ◆ Paul L. Cary, M.S. presents a careful review of relevant marijuana elimination research to reveal a reliable cannabinoid detection window. The establishment of this window puts to rest conventional claims that marijuana remains detectable in urine for 30 days or longer following smoking. This widely held assumption has complicated the interpretation of testing results, likely resulted in the delay of therapeutic intervention and judicial sanctioning, and fostered the denial of marijuana usage by drug court participants.

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- ◆ This issue of the *Review* concludes with a “Research Update” that synthesizes reports on three studies in the field of drug court research and evaluation: Evaluation of Program Completion and Rearrest Rates across four Drug Court Programs; Evaluation of Outcomes in Alaska’s Three Therapeutic Courts; and Process Evaluation of Maine’s Statewide Adult Drug Treatment Court Program.

THE DRUG COURT REVIEW

Published semi-annually, the *Review*'s goal is to keep the drug court practitioner abreast of important new developments in the drug court field. Drug courts demand a great deal of time and energy of the practitioner. There is little opportunity to read lengthy evaluations or keep up with important research in the field. Yet, the ability to marshal scientific and research information and "argue the facts" can be critical to a program's success and ultimate survival.

The *Review* builds a bridge between law, science, and clinical communities, providing a common tool to all. A headnote and subject indexing system allows access to evaluation outcomes, scientific analysis, and research on drug court related areas. Scientific jargon and legalese are interpreted for the practitioner into common language.

Although the *Review*'s emphasis is on scholarship and scientific research, it also provides commentary from experts in the drug court and related fields on important issues to drug court practitioners.

THE NATIONAL DRUG COURT INSTITUTE

The *Drug Court Review* is a project of the National Drug Court Institute. NDCI was established under the auspices of the National Association of Drug Court Professionals and with the support of the Office of National Drug Control Policy, Executive Office of the President, and the Bureau of Justice Assistance, U.S. Department of Justice.

The National Drug Court Institute's mission is to promote education, research, and scholarship to the drug court field and other court-based intervention programs.

Historically, education and training in the drug court field have only been available at regional workshops and the annual national conference; analysis and scholarship were largely limited to anecdotes and personal accounts.

That situation has changed. Evaluations exist on dozens of drug court programs. Scholars and researchers have begun to apply the rigors of scientific review and analysis to the drug court model. The level of experience and expertise necessary to support such an institution now exist.

Since its creation in December 1997, NDCI has launched a comprehensive practitioner training series for judges, prosecutors, public defenders, court coordinators, treatment providers, and community supervision officers; developed a research division responsible for developing a scientific research agenda and publication dissemination strategy for the field, as well as developing a series of evaluation workshops; and published a monograph series on relevant issues to drug court institutionalization and expansion.

ACKNOWLEDGEMENTS

I wish to thank all those who have contributed to this issue of the *Drug Court Review*: to the Office of National Drug Control Policy, Executive Office of the President, and the Bureau of Justice Assistance, U.S. Department of Justice, for the leadership, support, and collaboration that those agencies have offered to the National Drug Court Institute; and to Dr. David S. Festinger, Dr. David S. DeMatteo, Dr. Douglas B. Marlowe, Patricia A. Lee, Paul Cary, Dr. Donald F. Anspach, Andrew S. Ferguson, Vincent Collom, and the Alaska Judicial Council for their contributions as authors.

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**EXPUNGEMENT OF ARREST RECORDS
IN DRUG COURT:
DO CLIENTS KNOW WHAT THEY'RE MISSING?**

**By David S. Festinger, Ph.D.,
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Douglas B. Marlowe, J.D., Ph.D., and
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Expungement of arrest records is believed to be an important element of pre-plea drug courts. The opportunity for record expungement may be an incentive for some drug offenders to enter drug court and receive treatment, may reduce the stigma and collateral consequences of having an arrest record, and may extend the effects of drug court beyond graduation, when clients are no longer under the court's jurisdiction. Some data, however, indicate that many drug court graduates never apply for record expungement. This may be a result of not clearly understanding the concept of expungement, not understanding the requirements for obtaining expungement, or not recognizing the potential value of record expungement.

To examine these issues, we surveyed clients (N = 191) from three misdemeanor and three felony drug courts about their understanding of the expungement process. Findings revealed that (1) nearly one-half of these individuals could not define the term "expungement" or confused it with having their charges dropped, (2) virtually none of the offenders could correctly identify all of the requirements to obtain expungement beyond completing the drug court program, and (3) few were able to identify more than one potential benefit of expungement. These findings suggest the need for enhanced educational strategies to ensure that drug court graduates who meet the requirements for record expungement ultimately obtain these important benefits.

This research was supported by grants #R01-DA-13096, #R01-DA-14566, and #R01-DA-16730 from the National Institute on Drug Abuse (NIDA), with supplemental funding from the Center for Substance Abuse Treatment (CSAT). The views expressed are those of the authors and do not reflect the views of NIDA or CSAT. Portions of these data were presented at the 2004 Annual Conference of the American Psychology-Law Society, Scottsdale, AZ.

We gratefully acknowledge the on-going collaboration of the New Castle County Court of Common Pleas, Kent County Superior Court, Sussex County Superior Court, and Philadelphia Treatment Court. We also thank Kathleen Benasutti, Gloria Fox, Nicole K. Mastro, and Kristin Sines for their assistance with project management and data collection.

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ARTICLE SUMMARIES**BENEFITS OF
EXPUNGEMENT**

[1] There are three ways in which drug court clients and society can benefit from expungement: it can be an incentive to induce an offender into treatment; it can assist the offender in avoiding stigma; and it may be an effective means to keep graduates involved in recovery post-program.

METHODS

[2] The sample of drug court clients was drawn from three misdemeanor courts and three felony courts in Delaware and Pennsylvania. Participants were given a 5-minute survey testing their knowledge of expungement.

RESULTS

[3] Although many participants entered drug court in order to have their charges expunged, only slightly more than half could correctly define it, and almost none could explain the process.

DISCUSSION

[4] If the process of expungement could be improved by automated filing of petitions and continuing education about the process and benefits of expungement, it could be leveraged to increase aftercare participation.

INTRODUCTION

In many pre-plea or diversionary drug courts, offenders who satisfactorily complete the program may have their criminal charges dropped. Further, they may be eligible to apply for record expungement after remaining arrest-free for an additional waiting period (typically anywhere from 6 months to 3 years, depending on the jurisdiction) and meeting other obligations, such as filing a petition and paying a filing fee (Eastman, 2002). Expungement is generally defined as the permanent extraction of all records on file within a court, correctional facility, or law enforcement agency related to a person's detection, apprehension, arrest, detention, trial or disposition of an offense within the criminal justice system (Eastman, 2002). Although record expungement may not necessarily lead to a literal erasure of the arrest record from all databases, under most circumstances it will legally allow an individual to say, truthfully, on such documents as employment applications or housing applications that the arrest never happened.

[1] There are at least three potential ways in which record expungement may be beneficial to the offender and to society. First, record expungement may serve as an incentive for some individuals to enter drug court and receive treatment and case management services. However, the relative attractiveness of this opportunity to offenders remains unclear. It is possible, for example, that some defendants may be more highly motivated to enter drug court by the short-term opportunities of avoiding sentencing, having their criminal charges dropped, or retaining their driver's license. Nevertheless, one might assume that the opportunity for record expungement still plays a further role in some individuals' decisions to enter drug court.

Second, the opportunity for record expungement may be seen as a way to avoid the stigma and collateral consequences of having a criminal arrest record. The existence of an arrest

record may create roadblocks for offenders who are trying to rebuild their lives, support themselves and their families, and become productive members of society (Wexler, Melnick, & Chaple, 2005). Even if the criminal charges were dropped, having been arrested for a drug crime can still have devastating consequences for one's reputation and employability (Boyd, 2002; Demleitner, 2002). For example, in many jurisdictions, a record of a past criminal arrest can still be considered for purposes of increasing the sentence in a future criminal case, even if the prior charge was dropped in a diversion program (e.g., *McMillan v. Pennsylvania*, 1986; *United States v. Kammerdiener*, 1981). In addition, depending on the state, it may be permissible to discriminate against a job applicant based solely on an arrest record if the arrest is relevant to the job functions; for example, drug use may be job-related for bus drivers or childcare workers (e.g., Eastman, 2002). Moreover, even when it is not permissible or legal for a potential employer or landlord to refuse an applicant on the sole ground that the applicant has an arrest record (but no conviction), this is rarely acknowledged as the reason for denying the application. If legal action is taken, the burden of proof will ordinarily be on the applicant to prove that the arrest was the primary reason for the denial. Few individuals have the time, know-how, or resources to challenge such a denial in court. Clearly, then, it is in offenders' best interest to have their arrest records expunged. This can go far in reducing the stigma associated with having a criminal record for a drug offense and may improve a drug court graduate's chances of obtaining gainful employment, housing opportunities, student loans and grants, as well as government subsidies such as food stamps and temporary assistance to needy families (TANF) (e.g., Alexander & Walz, 1974; Demleitner, 2002).

Third, the opportunity for record expungement may work as an effective means for extending the positive effects of drug court following completion of the program. At the moment an offender graduates from a pre-plea drug court, the

court ordinarily loses legal jurisdiction over the case. The criminal charges are dropped, and the court's authority to order aftercare services as a condition of pre-trial monitoring or pre-sentencing release may be terminated. This leaves the criminal justice system with little leverage over graduates to coerce or entice them to continue in aftercare treatment. However, it is possible that the opportunity for record expungement could provide sufficient leverage to ensure graduates' continued involvement in aftercare and maintenance of sobriety (e.g., Marlowe, Elwork, Festinger, & McLellan, 2003). The opportunity to have one's arrest record expunged after an additional waiting period may act as a second "carrot" to incentivize graduates to remain abstinent from drugs and crime-free even after they are no longer under the jurisdiction of the court.

Despite the seemingly significant benefits of record expungement, our research in one state indicated that few drug court graduates actually applied for it. Out of 1,302 eligible drug court clients who completed a misdemeanor drug court program in Wilmington, Delaware between December 1998 and March 2004, only 78 (6%) filed petitions for expungement of their arrests. Given that less than 15% of the graduates were re-arrested during the 6-month waiting period between graduation and eligibility for expungement, this means that roughly 80% of graduates who were otherwise eligible for record expungement did not apply. There are several possible explanations for this.

One explanation is that drug court graduates may not fully understand the meaning of expungement, or may confuse it with *nolle prosequere* (i.e., prosecutorial decision not to prosecute further). Although many drug courts provide all clients with a thorough explanation of expungement, we do not know how well the clients comprehend this information, or whether they remember it 1 to 2 years later when it becomes relevant to them. In fact, research suggests that individuals who use illicit substances may have particular

problems with comprehending and retaining important information, both because of factors unique to substance abusers and because of the wide range of conditions that are co-morbid to substance abuse (McCrary & Bux, 1999). Acute drug intoxication or withdrawal may impair attention, cognition, or retention of important information (Munro, Saxton, & Butters, 2000; Saxon, Munro, Butters, Schramke, & McNeil, 2000; Tapert & Brown, 2000; Victor, Adams, & Collins, 1989). Limited educational opportunities, chronic brain changes resulting from long-term drug or alcohol use, prior head trauma, poor nutrition, and co-morbid health problems (e.g., AIDS-related dementia) are common in individuals with substance abuse or dependence diagnoses, and may reduce concentration and limit understanding. In addition, information regarding the opportunity for record expungement is typically presented to defendants shortly following their arrest, when they are deciding whether or not to enter the drug court program. This is likely to be a very stressful time for many individuals, which may further limit their ability to understand and retain important information.

It is also possible that many drug court graduates may not have the resources or wherewithal to obtain record expungement. Record expungement often requires at least a minimal understanding of the legal system and the petitioning process (Eastman, 2002). For instance, in jurisdictions in which the expungement process is not automatic, the individual must ordinarily file a petition with the court, which may require the assistance of an attorney. If the arrest record contains factual errors or was not properly updated, the applicant might need to appeal an erroneous denial, which might also require the assistance of an attorney, additional filing fees, and court appearances.

It is also possible that drug court clients may not fully appreciate the potential benefits of having their arrest records expunged. Although courts typically describe the potential benefits at admission to drug court (e.g., employment

opportunities, licensing applications, professional certifications), it is possible that clients may not fully anticipate the value of expungement until they are actually faced with a specific need for it. For example, drug court clients may not appreciate that having their arrest record expunged will allow them to honestly report to potential employers, loan officials, and various social service agencies that they have not been arrested for a drug-related offense, until they are actually sitting in an office and are directly faced with this issue.

Finally, some drug court graduates may not apply for record expungement because they may simply not be interested in the opportunity. For some individuals, the benefits of expungement, even if fully understood, may not be perceived as important enough to motivate them to pursue it. This may be particularly true for individuals with prior criminal arrests or convictions. These individuals may feel that they have nothing to gain from having their current arrest record expunged, because, in the end, they will still have a criminal record.

The purpose of the present study was to determine what proportion of clients in a sample of six drug court programs (1) understood the meaning of the term “expungement,” (2) knew the requirements for obtaining expungement, and (3) appreciated the potential benefits of having their arrest record expunged.

METHODS

[2] The sample was drawn from three misdemeanor courts and three felony courts located in rural, urban, and suburban counties within the State of Delaware, and in the urban city of Philadelphia, Pennsylvania (see Table 1). All three of the misdemeanor programs are in Delaware, and are situated in the urban city of Wilmington, the suburban State Capital of Dover, and the rural farming community of

Georgetown. Two of the three felony courts are also in Dover and Georgetown, Delaware, with the third located in Philadelphia, Pennsylvania.

Table 1. Drug Court Characteristics

Location	N	Setting	Charge	Program length	Expungement waiting period
Wilmington, DE	60	Urban	Misdemeanor	14 weeks	6 months post-graduation
Dover, DE	9	Suburban	Misdemeanor	14 weeks	3 years post-graduation
Georgetown, DE	14	Rural	Misdemeanor	14 weeks	3 years post-graduation
Dover, DE	40	Suburban	Felony	6 months	3 years post-graduation
Georgetown, DE	7	Rural	Felony	6 months	3 years post-graduation
Philadelphia, PA	61	Urban	Felony	1 year	1 year post-graduation

Eligible charges for the three misdemeanor drug court programs include possession or consumption of cannabis, possession of drug paraphernalia, and possession of hypodermic syringes. The programs are scheduled to be at least 14 weeks in length, although most clients require 5 to 6 months to satisfy the conditions for graduation. To be eligible to petition for record expungement, clients must (1) successfully graduate from the drug court program, (2) pay all court fees, and (3) wait the required amount of time following program completion without any new arrests or convictions. The misdemeanor programs in Dover and Georgetown are virtually identical in structure to the program in Wilmington and have virtually the same eligibility and graduation criteria. One important difference between the three misdemeanor programs is that clients in Wilmington are required to be conviction-free for 6 months post-graduation before they can petition for expungement of their qualifying arrest, whereas clients in the Dover and Georgetown

programs are required to be conviction-free for 3 years post-graduation.

Eligibility criteria differ slightly between the Delaware and Philadelphia felony courts. Eligible charges for the felony courts in Dover and Georgetown, Delaware include possession or consumption of narcotics, possession with intent to distribute illicit drugs, distribution or manufacturing of illicit drugs, and maintenance of a dwelling for the consumption or distribution of illicit drugs. The programs are scheduled to be a minimum of 6 months in length, although most clients require nearer to 12 months to graduate. The Delaware felony programs require graduates to be conviction-free for 3 years before they can petition for record expungement. Eligibility criteria for the Philadelphia drug court program require offenders to be charged with a felony drug offense that does not carry a mandatory sentence, the most common of which was possession with intent to deliver a controlled substance. Additionally, eligible offenders can have no more than two prior non-violent convictions. The Philadelphia program is scheduled to be a minimum of 1 year in length, and graduates are required to be conviction-free for 1 year before earning the opportunity for expungement of their qualifying arrest. Unlike the Delaware courts, the Philadelphia court automatically files the expungement petition on behalf of all eligible offenders.

Surveys were administered to 191 offenders who had voluntarily entered the six drug court programs. Within 2 weeks of their entry into the drug court, clients were asked whether they would be interested in completing an anonymous 7-item survey. Clients who consented to participate were administered the survey by trained research interviewers. All clients who were asked to participate in the survey consented to participate. Survey participants were primarily male (78%), with a mean age of 26.0 years ($SD = 8.3$). The sample had relatively equal proportions of African-

Americans (48%) and Caucasians (47%), followed by a much smaller proportion of Hispanics (2%).

The surveys, which took approximately 5 minutes to complete, included five open-ended questions and two Likert-scale questions to examine the following:

- (1) the reasons clients decided to enter the drug court program (open-ended);
- (2) the meaning of the term “expungement” (open-ended)¹;
- (3) the perceived importance of the expungement opportunity (4-point Likert scale);
- (4) the eligibility criteria for expungement (open-ended);
- (5) the required waiting period before one can petition for expungement (open-ended);
- (6) the potential benefits of record expungement (open-ended);
- (7) the likelihood of seeking expungement in the future (4-point Likert scale)².

Because question 1 asked for open-ended, subjective responses about why the clients chose to enter drug court, we had independent raters code the responses and we calculated inter-rater reliability. Responses to this question were coded into 5 separate categories: (1) to have their arrest record expunged, (2) to have their charges dropped, (3) to retain their driver’s license, (4) to receive treatment, and (5) due to other external pressures (e.g., suggested by an attorney or family member). The raters achieved an 87% inter-rater agreement (Kappa = .84). We did not calculate inter-rater

¹ Clients who answered incorrectly were provided with the correct definition of expungement before proceeding to the subsequent items

² This item was not administered to the Philadelphia drug court clients because the expungement petition is filed automatically by that court.

reliability for the remaining open-ended questions, because they were not subjective in nature and had clearly quantifiable correct answers.

Finally, all participants were asked whether they had any past criminal arrests and/or convictions. This variable was examined because, as mentioned earlier, it is possible that having a prior criminal record may diminish or otherwise influence a client's desire to seek expungement for new charges.

RESULTS

[3] A total of 191 participants from the six different courts completed the expungement survey. Forty-three percent ($n = 83$) of the study sample was recruited from the three misdemeanor drug courts and 57% ($n = 108$) was recruited from the three felony drug courts. Forty-one percent of the sample ($n = 79$) reported having prior criminal charges, of which 41% ($n = 32$) were from misdemeanor courts and 59% ($n = 47$) were from felony courts. Analyses revealed *no* significant differences between participants with or without prior criminal charges or between participants charged with misdemeanors or felonies on any of the survey items.

As shown in Table 2, the most commonly reported reasons for entering the drug court programs were to receive treatment (43%), to have their record expunged (36%), to have their charges dropped (35%), to keep their driver's licenses (14%), and as a result of other external pressures (2%).

Table 2.
Survey Items and Responses

Item	Response	Percent	N
‡ Main reasons for entering drug court	Treatment	43%	82
	Expungement	36%	68
	Charges dropped	35%	66
	Retain drivers' license	14%	27
	External pressures	2%	4
Definition of "expungement"	Current charges erased (correct)	58%	111
	Don't know	31%	59
	Current charges dropped (incorrect)	5%	9
	Entire criminal record erased (incorrect)	6%	12
* Importance of expungement in decision to enter?	Extremely	86%	95
	Somewhat	8%	9
	A little	2%	2
	Not at all	5%	5
‡ Possible benefits of expungement	Employment opportunities	77%	148
	Reduce stigma	17%	32
	Eligibility for housing assistance	6%	12
	Reduce sentence if convicted in future	5%	9
	Eligibility for government benefits	5%	9

	Eligibility for government loans	5%	10
† Expungement eligibility criteria	Successfully complete drug court	80%	153
	Remain abstinent	33%	63
	Avoid new arrests	21%	40
	Wait required amount of time	19%	37
	Pay court fines and fees	18%	34
	Avoid new convictions	9%	17
	Petition the court for expungement	5%	10
Post-graduation wait until qualified for expungement	Correct	61%	117
	Incorrect	39%	74
** Likelihood of seeking expungement	Extremely	85%	110
	Somewhat	6%	8
	A little	5%	6
	Not at all	5%	6

* Includes only participants who correctly defined the term “expungement.”

** Includes only participants from the Delaware drug courts.

† Percentages can add up to more than 100% due to clients providing more than one response.

Fifty-eight percent of the participants ($n = 111$) were able to correctly define the term “expungement” as having one’s current qualifying treatment court charges (arrests) erased from their record. The balance of the participants either provided an incorrect response or were unable to generate a response, with 5% ($n = 9$) of the participants confusing record expungement with having one’s current charges dropped, 6% ($n = 12$) defining it as having one’s entire criminal record wiped clean, and 31% ($n = 59$) unable to provide a response.

Of the 111 participants who correctly defined expungement, 86% ($n = 95$) reported that the opportunity for expungement was “extremely important” in their decision to enter the drug court program. Additionally, 8% ($n = 9$) described expungement as being “somewhat important,” 2% ($n = 2$) described expungement as being “a little important,” and 5% ($n = 5$) described expungement as “not at all important” in their decisions to enter the drug court program.

When asked to identify the potential benefits of having their arrest records expunged, 77% reported that expungement may improve their chances for future employment, 17% reported that expungement would increase their self-esteem, 6% reported that expungement would increase their eligibility for housing assistance, 5% reported that expungement would reduce their sentence if convicted in the future, 5% reported that expungement would increase their eligibility for government benefits, and 5% reported that expungement would improve their opportunity to obtain government loans. Participants reported an average of 1.2 ($SD = 0.8$) potential benefits.

When the entire sample, after being provided with the correct definition of record expungement, was asked to list the eligibility requirements for having their records expunged, 80% correctly identified successfully completing the drug court program, 33% correctly identified remaining

drug abstinent, 21% correctly identified avoiding any new arrests, 19% correctly identified waiting the required amount of time, 18% correctly identified paying court fines and fees, 9% correctly identified avoiding new convictions, and 5% correctly identified petitioning the court for expungement. Overall, participants were able to recall an average of 1.8 (SD = 1.2) eligibility requirements, and only 2% of the drug court clients were able to correctly identify all of the requirements for expungement. When asked about the required waiting period between graduation from the drug court program and being eligible for expungement, 61% provided a correct response.

Finally, when the Delaware drug court clients were asked about how likely they would be to seek expungement in the future, 85% reported that they would be “extremely likely,” 6% reported that they would be “somewhat likely,” 5% reported that they would be “a little likely,” and 5% reported that they would be “not at all likely.” As mentioned earlier, Philadelphia drug court clients were not asked this question because the expungement process is automatic in that jurisdiction.

DISCUSSION

[4] It is widely assumed that the opportunity for record expungement in pre-plea drug courts is an important incentive for offenders to enter drug court programs and to maintain their involvement in aftercare and continued sobriety once they graduate and are no longer under the court’s jurisdiction. However, results of our survey suggest that nearly one-half of the clients could not correctly define the term “expungement,” virtually none (2%) of the clients could correctly identify all of the requirements to obtain expungement, and few were able to identify more than one potential benefit of expungement. As it stands, the limited understanding of expungement and its potential benefits may significantly diminish its ability to function as a “secondary

carrot” for enhancing adherence to post-graduate abstinence and service utilization and likely contributes to the small number of expungement petitions that are actually filed.

Importantly, however, of the participants who correctly understood the concept of expungement, the majority (88%) reported that the opportunity for expungement was “extremely important” to their decision to enter drug court. This suggests that educating clients about the process of expungement could make record expungement function as a more effective reinforcement of drug abstinence and program compliance. That is, if graduates understood the benefits of expungement, they might strive harder to satisfy the requirements for expungement.

The current study highlights the need for enhanced strategies to ensure that more graduates who meet the requirements for record expungement ultimately obtain this important benefit. One such strategy might involve developing enhanced orientation procedures to help drug court clients better understand the meaning and potential benefits of record expungement. Although courts typically provide detailed information on these issues, it is possible that there is room to enhance these efforts by, for example, providing clients with continuing education about the benefits of expungement, administering brief quizzes or questionnaires, or providing written discharge plans that remind graduating clients about the opportunity and benefits of expungement. In addition, clients may be better served if this information were provided as part of an ongoing process rather than a one-time event. For example, drug court staff might provide expungement information to clients at regular intervals (e.g., status hearings and at graduation) throughout the program. Finally, many jurisdictions have begun to automate the record expungement process. In some of these jurisdictions, the drug court files the expungement petition on behalf of the graduate and pays the associated filing fees.

Future research should examine the effectiveness of these strategies for increasing drug court clients' understanding of record expungement and its potential benefits. Research might also examine ways of leveraging record expungement to promote increased participation in aftercare programs. For example, jurisdictions may be able to shorten the required waiting periods for expungement contingent upon regular participation in aftercare programs. Research in this area could help to inform public policy, improve outcomes for drug court clients, and reduce offender recidivism and its associated costs to society.

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**THE MARIJUANA DETECTION WINDOW:
DETERMINING THE LENGTH OF TIME
CANNABINOIDS WILL REMAIN
DETECTABLE IN URINE
FOLLOWING SMOKING**
**A Critical Review of Relevant Research and
Cannabinoid Detection Guidance for Drug Courts**

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The testing of drug court clients for marijuana usage is important for abstinence monitoring. Conventional wisdom holds that marijuana remains detectable in urine for 30 days or longer following smoking. This widely held assumption has complicated the interpretation of testing results, likely resulted in the delay of therapeutic intervention and judicial sanctioning, and fostered the denial of marijuana usage by drug court participants. A careful review of relevant marijuana elimination research reveals that a reliable cannabinoid detection window can be established to aid drug courts in initiating strategies necessary produce to behavioral change. The purpose of this paper is to provide sensible cannabinoid detection guidance that will assist courts in their decision making process.

An extensive evaluation of marijuana elimination research is presented and cannabinoid detection window guidance is offered. Recent scientific literature indicates that it is uncommon for occasional marijuana smokers to test positive for cannabinoids in urine for longer than seven days using standard cutoff concentrations. Following smoking cessation, chronic smokers would not be expected to remain positive for longer than 21 days, even when using the 20 ng/mL cannabinoid cutoff. While longer detection times have

been documented in research studies, these prolonged elimination findings represent uncommon occurrences and should not be used as exculpatory evidence in the majority of case adjudications. The interpretation of urine cannabinoid testing results related to client detoxification, establishing an abstinence baseline and continued testing after positive results are discussed. Drug courts are encouraged to establish a reasonable and pragmatic cannabinoid detection window in order to provide objective criteria for equitable and consistent court decisions.

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ARTICLE SUMMARIES

FRAMING THE QUESTION

[5] The cannabinoid detection window is defined as the estimated number of days a urine sample will continue to test positive following the last use of marijuana.

VARIABLES

[6] Numerous pharmacological and technical variables influence the length of time required for cannabinoids to be eliminated from the body.

RESEARCH REVIEW

[7] A serious concern associated with some of the research upon which the 30-plus day assumption is based is the inability to assure that marijuana was not used by subjects during the studies.

PERPETUATING THE 30-PLUS DAY ASSUMPTION

[8] The 30-day window is continually reaffirmed by sources as varied as the magazine *High Times*, substance abuse treatment literature, and health information materials.

ESTABLISHING THE CANNABINOID

DETECTION WINDOW

[9] For a single use event, the cannabinoid detection window is about 3-4 days using the 50 ng/mL cutoff concentration; for chronic use, it would not be longer than 21 days even at low (20 ng/mL) cutoff levels.

CLIENT

DETOXIFICATION

[10] While a 30 day "clean out" period may not be required for a negative urine test, it would be unlikely for a drug court client to remain cannabinoid positive by the end of this designated abstinence period.

ABSTINENCE BASELINE

[11] The "two negative test approach" for establishing a client's abstinence baseline allows the determination of new or recent marijuana usage.

**CANNABINOID TESTING
FOLLOWING POSITIVE
RESULTS**

[12] Urine drug testing following a positive result for cannabinoids should continue to ensure that no covert usage of drugs besides marijuana occurs and to avoid sending the wrong therapeutic message to other clients.

**COURT EXPECTATIONS
AND CLIENT
BOUNDARIES**

[13] Establishing a cannabinoid detection window defines compliance boundaries and aids the court in applying intervention strategies and sanctions in an equitable and consistent manner.

PREFACE

The duration of the urinary cannabinoid detection window is not settled science. The number of days, following the cessation of marijuana smoking, necessary for cannabinoids to become non-detectable using traditional drug testing methods is the subject of debate among forensic toxicologists and a matter of on-going scientific research. This article makes no pretense to limit this important discussion, but rather, seeks to enhance it. It is hoped that drug court practitioners will find that this information clarifies some of the complex issues associated with the elimination of marijuana from the human body.

Conventional wisdom has led to the common assumption that cannabinoids will remain detectable in urine for 30 days or longer following the use of marijuana. These prolonged cannabinoid elimination projections have likely resulted in the delay of therapeutic intervention, thwarted the timely use of judicial sanctioning, and fostered the denial of marijuana usage by drug court participants.

This review challenges some of the research upon which the 30-plus day elimination assumption is based. Careful scrutiny of these studies should not be interpreted as an effort to discredit the findings or the authors of this research. However, as our knowledge evolves, the relevancy of previously published scientific data should be evaluated anew. One fact is clear—more research is needed in the area cannabinoid elimination.

Merely attempting to formulate cannabinoid detection guidance invites controversy. Some will argue that the proposed detection window defined in this article is too short. Others will suggest the opposite. Still others will insist that the scientific evidence is insufficient to allow the establishment of such guidance. To some degree, each position has merit. No detection window guidance,

regardless of the extent of scientific support, will encompass every set of circumstances or all client situations. If nothing else, the research demonstrates that there is significant variability between individuals in the time required to eliminate drugs.

These facts, however, should not preclude the development of reasonable and pragmatic guidance, supported by scientific research, for use in the majority of drug court adjudications. It is widely accepted that in order to instill successful behavioral changes in a substance abusing population, that consequences need to be applied soon after the identification of renewed or continued drug use. In a drug court context, the application of judicial sanctions and the initiation of therapeutic interventions have been needlessly delayed due to a lack of coherent guidance regarding the length of time cannabinoids will likely remain detectable in urine following the cessation of marijuana smoking. The purpose of this article is to provide that much needed guidance.

INTRODUCTION

In a recent forensic publication, Dr. Marilyn Huestis wrote: “Monitoring acute cannabis usage with a commercial cannabinoid immunoassay with a 50-ng/mL cutoff concentration provides only a narrow window of detection of 1–2 days,” (2002). In a 1985 article by Ellis et. al., researchers concluded; “that under very strictly supervised abstinence, chronic users can have positive results for cannabinoids in urine at 20 ng/mL or above on the EMIT-d.a.u. assay¹ for as many as 46 consecutive days from admission, and can take as many as 77 days to drop below the

¹ EMIT is a registered trademark of the Dade Behring/SYVA Company and stands for (Enzyme Multiplied Immunoassay Technique). EMIT is a commercial drug testing product for the analysis of drugs of abuse in urine (d.a.u.).

cutoff calibrator for ten consecutive days.” Based upon these seemingly divergent findings, it is not difficult to comprehend why judges, attorneys and other drug court professionals are in a quandary regarding the length of time marijuana can remain detectable in urine following use. The dilemma—if the scientific research seems not to be able to achieve consensus on the urinary cannabinoid detection window, how are those responsible for court mandated drug supervision programs suppose to understand and resolve this issue?

Like many other scientific and technical topics that have been thrust into the judicial environment, the detection window of marijuana is both complex and controversial, yet the understanding of the pharmacology of this popular substance is crucial to the adjudication of cases in which marijuana usage is involved. While the difficulties associated with establishing the length of time a drug will continue to test positive in urine after use are not unique to marijuana, the problem is exacerbated by the extended elimination characteristics of cannabinoids relative to other drugs of abuse, most notably after chronic use.

The questions posed by drug court professionals related to cannabinoid detection in urine include:

- How many days is it likely to take for a chronic marijuana user to reach a negative urine drug test result?
- How long can cannabinoids be excreted and detected in urine after a single exposure to marijuana?
- How many days of positive urine drug tests for cannabinoids constitutes continued marijuana usage?

- How often should a client's urine be tested to monitor for continued abstinence from marijuana?
- How many days should the court wait before retesting a client after a positive urine drug test for cannabinoids has been obtained?
- How should the court interpret a positive urine drug test for cannabinoids after a client has completed an initial 30-day detoxification period designed to "clean out" their system?

To one degree or another, answering these questions depends upon the ability of the court to estimate the length of time cannabinoids will likely remain detectable in urine following the use of marijuana by a drug court client. Thus, the cannabinoid detection window becomes a determinative factor in the appropriate interpretation of urine drug testing results for marijuana. The lack of adequate guidance has hindered the development of these standards for use in drug court.

It is important to note that while courts may be seeking absolute answers (an exact cannabinoid detection window), the science of drug detection in urine can only provide reasonable best estimates. The law is not always black and white; neither is science. Therefore, precise "yes/no" answers or exact detection windows are generally not attainable. Sensible guidance for the interpretation of urine cannabinoid results by drug courts, however, is achievable.

FRAMING THE QUESTION

[5] Simply put, the *detection window* is the length of time in days following the last substance usage that sequentially collected urine samples will continue to produce

positive drug test results—in other words, the number of days until last positive sample will be produced. This time period is *not* the same as the length of time a drug will remain in someone's system—that concept is, in reality, indeterminable (given that there is no analytical method capable of detecting the presence of a single molecule of drug in a donor's body). The question being addressed herein is not how long minute traces of marijuana will remain in a client's tissues or fluids after smoking, but rather how long those residual cannabinoid metabolites will continue to be excreted in urine in sufficient quantities to produce a positive drug test (by standard screening and confirmation testing).

For those compounds with uncomplicated metabolic pathways or for those drugs that are not significantly retained in body storage compartments, detection times have been established and generally accepted. These include urinary detection windows for drugs such as cocaine (1-3 days), amphetamines and opiates (1-4 days), and PCP (1-6 days) (Baselt, 2004). For marijuana, the urine elimination profile used to establish the detection window is more complex. It is well documented and understood that cannabinoids are lipid-soluble compounds that preferentially bind to fat-containing structures within the human body (Baselt, 2004). This and other chemical characteristics can prolong the elimination half-life of cannabinoids and extend the detection window beyond that of other abused substances. Chronic marijuana use, which expands body stores of drug metabolites faster than they can be eliminated, further increases cannabinoid detection time in urine.

VARIABLES

[6] Estimating the detection time of a drug in urine is a complex task because of the many factors that influence a compound's elimination from the body. Additionally, technical aspects of the testing methods themselves also affect how long a drug will continue to be detected in urine.

The pharmacological variables affecting the duration of detection include drug dose, route of administration, duration of use (acute or chronic), and rate of metabolism. Detection time is also dependent upon analytical factors including the sensitivity of the test (cutoff concentration) and the method's specificity (the actual drug and/or metabolite that is being detected).

Generally speaking, the following factors affect the marijuana detection window accordingly:

-Drug dose: The higher the dose; the longer the detection window. The percentage of psychologically active delta-9 THC in marijuana plant material varies considerably, making dosage difficult to estimate.

-Route of entry: Inhalation (smoking) is the only route of administration to be evaluated in this review.

-Duration/frequency of use: The longer the duration and the greater the frequency of cannabinoid usage (chronic); the greater the body storage of fat-soluble metabolites; the longer the cannabinoid detection window. Drug surveillance programs may be able to define use patterns based on client self-reporting, arrest reports, documentation of previous treatment, or other court records.

-Metabolism rate: The higher the metabolic functions of the client; the faster cannabinoids are broken down; the shorter the detection window. Monitoring programs cannot determine this parameter.

-Test sensitivity: The lower the cutoff concentration; the more sensitivity the testing method toward cannabinoids; the longer the detection window. Court staff can select between various cannabinoid testing cutoffs.

-Test specificity: The less specific the testing method; the greater number of cannabinoid metabolites detected; the longer the detection window. This is difficult for monitoring programs to assess without technical assistance.

Of these variables, drug courts are effectively limited to controlling only the sensitivity of the drug test itself (i.e., cutoff concentration). Initial screening test cutoffs for cannabinoids in urine generally include thresholds at 20, 50, and 100 ng/mL. The choice of testing cutoff has a profound effect on the cannabinoid detection window. The only other factor that can assist the court in the interpretation of cannabinoid testing results and the estimation of a client's detection window is attempting to define the duration and extent of a client's marijuana use over time (acute or chronic). The differentiation between acute (a single use event or occasional use) versus chronic (persistent, long-term, continued usage) is important to establishing reliable detection benchmarks. As a result, drug court practitioners should attempt to gather as much information as they can about client drug use behavior and patterns.

Finally, the detection window by its very nature is subject to the timing of events outside the purview of the court. The last use of marijuana by a client prior to a positive test is often unknown to drug court staff. Thus, the real interval between drug usage and first detection can rarely be ascertained. For example, if a client smoked marijuana on Monday and a urine sample collected on Friday produced a positive result, the window of detection is 4 days shorter than if that same client had smoked on Thursday and produced a positive cannabinoid test on Friday. Therefore, the actual detection window for marijuana will almost always be longer than the analytically derived detection window as determined via positive tests.

RESEARCH REVIEW

[7] Research associated with the detection window of cannabinoids in urine spans several decades. While these studies have produced a significant amount of valuable information about marijuana elimination, older studies (primarily those performed in the 1980's) have also yielded some unintended consequences as pertains to the detection window. The technologies of drug testing and the methodologies used in drug detection have advanced rapidly in recent years. Consequently, cannabinoid detection studies performed twenty years ago (employing older immunoassays methods) utilized drug testing methods that are either no longer in widespread use or assays that have been extensively reformulated.

As cannabinoid screening tests evolved, these improved assays became more selective in the manner in which they detected marijuana metabolites (breakdown products). As detection specificity increased, the length of time cannabinoids were being detected in urine decreased. The greater the cannabinoid testing specificity, the shorter the detection window. Studies have demonstrated that detection times of cannabinoid metabolites in urine monitored by immunoassay have decreased over the past two decades (Huestis, 2002; Huestis, Mitchell, & Cone, 1994). Therefore, the results of cannabinoid elimination investigations performed in the 1980's may no longer be applicable to estimating the detection window for marijuana in urine using today's testing methodologies. Not to mention that twenty years ago, the routine use of on-site drug testing devices was nonexistent.

Studies of chronic marijuana users reporting prolonged cannabinoid excretion profiles have provided the basis for the common assumption that marijuana can be detected in urine for weeks or even months following use. In general, cannabinoid elimination studies that have manifested

exceptionally long detection times suffer from a variety of research design shortcomings that raise concerns about their usefulness in establishing a reliable cannabinoid detection window for use in the modern drug court movement. Table I examines some of the potentially limiting factors from studies that produced prolonged cannabinoid detection times.

The research studies presented in Table 1 contain numerous design details that confound the use of the data presented in establishing a reasonable and pragmatic cannabinoid detection window for drug court proceedings. The most serious of these obfuscating factors is the inability to assure marijuana abstinence of the subjects during the studies. The adverse effect of this flaw on determining the true cannabinoid elimination time after marijuana cessation is significant. Drug use during an elimination study would extend the duration cannabinoids would be detected in the urine of subjects and would produce inaccurately long detection windows. In several cases, the authors themselves in their own review of results raise this concern. Other study design issues that may limit their usefulness include the use of detection methods with cannabinoid cutoff concentrations far below those traditionally utilized in criminal justice programs, the use of testing methods no longer commercially available and the use of immunoassay drug tests with reduced cannabinoid specificity (as compared with current immunoassay testing methods). It is not the intention of this article to discredit these studies, but rather to illustrate the degree to which their prolonged cannabinoid detection findings have influenced the understanding of the length of time cannabinoids can be detected in urine.

This critical evaluation (Table 1) is not presented to imply that these peer-reviewed articles are unscientific or contain no information of probative value. It is insufficient, however, to merely read the abstract of a scientific paper or the findings of a research study and draw the conclusion that a drug court client can remain positive for 30 days or longer,

Table 1. Review of Cannabinoid Studies Reporting Long Detection Times

Maximum Detection Times Determined	Factors Potentially Affecting the Relevance of Study Findings to Cannabinoid Detection Window Interpretation	Year
36 days	Retrospective case study of a single patient; report on 6 similar cases included; no testing data provided in publication; no cannabinoid cutoff given. (Dackis, Pottash, Annitto, & Gold)	1982
37 days	27 subjects studied, no testing data provided in publication; cannabinoid cutoff not provided; "calculated" cannabinoid cutoff less than 10 ng/mL; 37 day detection derived from 95% confidence interval for calculated elimination half-life; actual length of positivity averaged 9.7 days (5–20 days); authors acknowledge subjects may have been able to obtain marijuana during study; possibility supported by staff monitoring subjects. (Cridland, Rottanburg, & Robins)	1983
40 days	10 subjects studied; self-reported as chronic users; subjects housed on unrestricted drug treatment ward; marijuana use during study suspected by authors and confirmed by several subjects. (Swatek)	1984
67 days	86 subjects studied; self-reported as chronic users; subjects treated on "closely supervised" ward; single case of an individual's time to last positive urine (at or above 20 ng/mL) of 67 days (77 days to drop below the cutoff calibrator for ten consecutive days); spikes in urine cannabinoid levels during the study are not explained by the authors. (Ellis, Mann, Judson, Schramm, & Tashchian)	1985
25 days	11 subjects studied for cannabinoid elimination patterns (70 participants in entire study); only one subject remained positive for 25 days; mean elimination for self-reported "heavy" users was 13 days; immunoassay used in study not commercially available since 1995. (Schwartz, Hayden, & Riddile)	1985
25 days	13 subjects studied; self-reported as chronic users; subject abstinence not supervised during study; subjects allowed to smoke marijuana before and on the day of test drug administration; only one subject tested positive beyond 14 days. (Johansson & Halldin)	1989
25 days	Subject detection times determined using methods with a 5 ng/mL cannabinoid cutoff concentration. (Iten)	1994
32 days	19 subjects studied - half withdrew from study prior to completion; subjects were prisoners housed in general population with no additional surveillance; participants not asked to report new drug use during study; marijuana use during study suspected by authors. (Smith-Kielland, Skuterud, & Morland)	1999

based upon the longest cannabinoid detection time reported therein. The data from these studies are often misused to make such claims.

Despite the potential limitations affecting the interpretation of the data produced by the studies in Table 1, the research does present some general cannabinoid elimination trends worth further examination. A closer evaluation of the study by Smith-Kielland, Skuterud, & Morland indicates that even with the factors identified as limiting its relevance, the average time to the first negative urine sample at a cannabinoid cutoff of 20 ng/mL was just 3.8 days for infrequent users and only 11.3 days for frequent users (1999). In the Swatek study, eight out of ten chronic subjects tested below the 50 ng/mL cutoff after an average of only 13 days (range 5-19 days) (1984). Johansson and Halldin identified only one study subject that tested positive for longer than 14 days with all thirteen subjects having an average last day with detectable levels (using a 20 ng/mL cutoff) of 9.8 days (1989). In other words, despite the potential factors restricting interpretation, those study subjects with exceptionally long cannabinoid detection times (30-plus days) were just that—exceptional. In several of the studies presented in Table 1, only a single subject was the source of the maximum cannabinoid detection time. Unfortunately, these rare occurrences have had a disproportional influence on the overall cannabinoid detection window discussion in a manner that has led to the general assumption that 30-plus day detection times are routine in drug court clients—regardless of use patterns (chronic vs. acute). Moreover, this prolonged elimination assumption and its widespread use as exculpatory evidence has most likely fostered client denial and hindered legitimate sanctioning efforts.

By contrast, the research associated with acute marijuana usage and resulting cannabinoid detection window is considerably more straightforward and less contentious. In

a 1995 study using six healthy males (under continuous medical supervision), Huestis, Mitchell, & Cone determined that the mean detection times following a low dose marijuana cigarette ranged from 1 to 5 days and after a high dose cigarette from 3 to 6 days at a 20 ng/mL immunoassay cutoff concentration (average 2.1 days and 3.8 days, respectively) (1995). They also concluded that immunoassays at the 50 ng/mL cannabinoid cutoff provide only a narrow window of detection of 1-2 days following single-event use. In 1996, Huestis et. al. published research focusing on carboxy-THC, the cannabinoid metabolite most often identified by gas chromatography/mass spectrometry (GC/MS) confirmation methods. Using the 15 ng/mL GC/MS cutoff, the detection time for the last positive urine sample (for six subjects following high dose smoking) was 122 hours—just over five days. In 2001, Niedbala et. al. demonstrated similar results with 18 healthy male subjects following the smoking of cigarettes containing an average THC content of 20-25 mg. Analyzing urine samples at a 50 ng/mL immunoassay cutoff yielded an average cannabinoid detection time of 42 hours. These acute marijuana elimination studies conclude that after single usage events cannabinoids are detected in urine for no more than a few days.

While studies of the cannabinoid detection window in chronic substance users have been more difficult to accomplish, research protocols have been developed to overcome concerns about marijuana usage during the study. Using a well-crafted study design, Kouri, Pope, & Lukas in 1999 determined the cannabinoid elimination profiles of 17 chronic users. Subjects were selected after reporting a history of at least 5000 separate “episodes” of marijuana use in their lifetime (the equivalent of smoking once per day for 13.7 years) plus continuing daily usage. Abstinence during the 28-day study was ensured by withdrawing those subjects whose normalized urine cannabinoid levels (cannabinoid/creatinine ratio) indicated evidence of new marijuana use. Kouri, et al, found that five of the 17 subjects reached non-detectable

levels (less than 20 ng/mL) within the first week of abstinence, four during the second week, two during the third week and the remaining six subjects still had detectable cannabinoid urinary levels at the end of the 28-day abstinence period. Unfortunately, analytical results related to the cannabinoid testing in the article were scant as the primary objective of the study was to assess changes in aggressive behavior during withdrawal from long-term marijuana use. Even though this represents one of the best studies of chronic marijuana users, interpretation of this data for cannabinoid elimination purposes is limited because the actual drug testing data is not available. Nonetheless, Kouri, et al, shows that after at least 5000 marijuana smoking episodes, 30-day elimination times are possible.

A 2001 research project by Reiter et al. also seemed to avoid many of the design issues cited as concerns in Table 1. Reiter's case study involved 52 volunteer chronic substance abusers drug tested on a detoxification ward. Daily urine and blood tests excluded illicit drug consumption during the study. Using a 20 ng/mL immunoassay cutoff, the maximum elimination time (last time urine tested above the cutoff) for cannabinoids in urine was 433.5 hours (or just over 18 days); with a mean elimination time of 117.5 hours (4.9 days). When controlling for covert marijuana use by subjects during the study, chronic users in this study did not exhibit detectable urine cannabinoid levels for even three weeks.

In aggregate, using the data from the five studies cited in this review that researchers described as chronic marijuana users (even including data from Table 1), the *average* detection window for cannabinoids in urine at the lowest cutoff concentration of 20 ng/mL was just 14 days (Ellis, et al, 2002; Iten, 1994; Niedbala, 2001; Schwartz, Hayden, & Riddile, 1985; Swatek, 1984).

PERPETUATING THE 30-PLUS DAY ASSUMPTION

[8] The assumption that cannabinoids can be routinely detected in urine following the smoking of marijuana for 30 days or longer appears widespread and longstanding. Exacerbating this problem is the nearly constant proliferation of published material that continually reinforces the 30-plus day cannabinoid detection window into the criminal justice psyche. Examples of the enormous body of information/literature that propagates the 30-plus day cannabinoid detection times abound:

- *Substance abuse treatment literature* proclaiming that “some parts of the body still retain THC even after a couple of months.”ⁱ
- *Drug abuse information targeted toward teens* that often presents unrealistic cannabinoid detection times such as; “Traces of THC can be detected by standard urine and blood tests for about 2 days up to 11 weeks.”ⁱⁱ
- *Criminal justice publications* that list the cannabinoid detection limits of a “Chronic Heavy Smoker” as “21-27 days.”ⁱⁱⁱ
- *Drug testing manufacturers’ pamphlets* that state the time to last cannabinoid positive urine sample as “Mean = 27.1 days; Range = 3-77 days.”^{iv}
- *General information websites* that offer “expert” advice concluding, “The average time pot stays in your system is 30 days.”^v
- *Urine tampering promotions* in magazines such as *High Times* and on websites that offer urine drug cleansing supplements and adulterants intended to

chemically mask the presence of drugs in urine often exaggerate the detection window in an effort to promote the continued use of their products. Some of their claims include: drug detection times in urine [for] “Cannabinoids (THC, Marijuana) 20-90 days,”^{vi} and detection times for smokers who use “5-6x per week—33-48 days.”^{vii}

- *Health information websites* that provide the following guidance; “At the confirmation level of 15 ng/ml, the frequent user will be positive for perhaps as long as 15 weeks.”^{viii}
- Dr. Drew Pinsky (a.k.a. *Dr. Drew*), who has co-hosted the popular call-in radio show *Loveline* for 17 years, states that “Pot stays in your body, stored in fat tissues, potentially your whole life.”^{ix}

Based upon these information sources that claim cannabinoids elimination profiles of 25 days, 11 weeks, 90 days, up to 15 weeks after use, and for “your whole life,” is it any wonder that drug court professionals cannot reach consensus on this issue? Is there any doubt why drug court clients make outlandish cannabinoid elimination claims in court? These represent but a sampling of the many dubious sources that perpetuate the prolonged cannabinoid detection window. As a consequence, the 30-plus day cannabinoid elimination period remains a commonly assumed “fact.”

ESTABLISHING THE CANNABINOID DETECTION WINDOW IN URINE

[9] The detection window for cannabinoids in urine must be seen in the proper context—as a reasonable estimate. Detection times for cannabinoids in urine following smoking vary considerably between subjects even in controlled smoking studies using standardized dosing techniques. Research studies have also demonstrated significant inter-

subject differences in cannabinoid elimination rates. The timing of marijuana elimination is further complicated by the uncertainty of the termination of use and continued abstinence. That said, general estimates for establishing a cannabinoid detection window in urine can be advanced and accepted for use in drug courts. Based upon the current state of cannabinoid elimination knowledge and the drug testing methods available in today's market, the following practical cannabinoid detection guidance is offered.

Based upon recent scientific evidence, at the 50 ng/mL cutoff concentration for the detection of cannabinoids in urine (using the currently available laboratory-based screening methods) it would be unlikely for an individual to produce a positive urine drug test result for longer than 10 days after the last smoking episode. Although there are no scientific cannabinoid elimination studies on chronic users using non-instrumented testing devices, one would assume that if the on-site devices are properly calibrated at the 50 ng/mL cutoff level the detection guidance would be the same.

At the 20 ng/mL cutoff concentration for the detection of cannabinoids in urine (using the currently available laboratory-based screening methods) it would be uncommon for an individual to produce a positive urine drug test result longer than 21 days after the last smoking episode.

For occasional marijuana use (or single event usage), at the 50 ng/mL cutoff level, it would be unusual for the detection of cannabinoids in urine to extend beyond 3-4 days following the smoking episode (using the currently available laboratory-based screening methods or the currently available on-site THC detection devices). At the 20 ng/mL cutoff for cannabinoids, positive urine drug test results for the single event marijuana use would not be expected to be longer than 7 days.

This cannabinoid detection guidance should be applicable in the majority of drug court cases. These parameters (acute vs. chronic), however, represent opposite ends of the marijuana usage spectrum. Clients will often exhibit marijuana-smoking patterns between these two extremes resulting in an actual detection window that lies within these limits. As noted in the Kouri, et al, study, research suggests that under extraordinary circumstances of sustained, extended and on-going chronic marijuana abuse (thousands of smoking episodes over multiple years) that 30-day urinary cannabinoid detection is *possible* in some individuals at the 20 ng/mL cutoff (1999). However, the burden of proof for documenting such aberrant and chronic marijuana use patterns should fall on the drug court client or the client's representatives. For a client to simply disclose "chronic" use is insufficient corroboration.

Much has been made about marijuana research that has produced dramatically prolonged cannabinoid elimination times, particularly in those subjects identified as chronic. This data has often been used to explain continuing positive cannabinoid test results in clients long after their drug elimination threshold (resulting in negative urine drug tests) should have been reached. The pertinent question: to what extent does the scientific data (demonstrating 30-plus day cannabinoid detection times in chronic users) influence the disposition of drug court cases? Put another way, do drug court practitioners need to be concerned about the potential of extended cannabinoid detection times impacting court decisions (i.e., sanctions)? In reality, the only timeframe in which an individual's chronic marijuana use (possibly leading to extended cannabinoid elimination) is relevant is during a client's admission into the drug court program. It is during this initial phase that the court may find itself attempting to estimate the number of days necessary for a client's body to rid itself of acquired cannabinoid stores and the time required to produce negative drug test results. In many programs, a detoxification period is established for this purpose. Once in

the drug court program (following the initial detoxification phase), the extent of a client's past chronic marijuana usage does not influence the cannabinoid detection window as long as appropriate supervision and drug monitoring for abstinence continues on a regular basis. It would seem reasonable to assume that chronic client marijuana usage of the extreme levels discussed here while within a properly administered drug court would be highly unlikely. Therefore, the consequences of chronic marijuana usage on the cannabinoid detection window are effectively limited to the initial entry phase of the program.

The cannabinoid detection window guidance provided herein relies upon the widely used cutoff concentrations for the initial screening tests—20 ng/mL and 50 ng/mL. For programs utilizing GC/MS confirmation for the validation of positive screening results, the confirmation cutoff has little influence on the length of the cannabinoid detection window in urine. A review of the potential result possibilities demonstrates this point. If a drug court sample tests negative for cannabinoids on the initial screen, the confirmation cutoff is obviously irrelevant because the sample is not submitted for confirmation testing. If a sample both screens and confirms as positive for cannabinoids (and is reported as positive), then the cutoff concentration of the confirmation analysis is also not relevant because the sample would not have been sent for confirmation unless it produced a result greater than or equal to the cutoff level of the initial screening test. In other words, the confirmation procedure is merely validating the results (and therefore the cutoff) of the original screening test. The only scenario in which the confirmation cutoff could potentially impact the length of the cannabinoid detection window is if a sample screened positive and the confirmation procedure failed to confirm the presence of cannabinoids (and the results of the drug test were reported as negative). In this circumstance, the cannabinoid detection window might be shorter than the estimate provided as guidance. This would be true on the

condition that the confirmation cutoff concentration was lower than that of the screening procedure—which is nearly always the case. A shorter cannabinoid detection window would not be seen as prejudicial to the client and might actually be beneficial to the drug court.

Using this cannabinoid detection window guidance, the drug court decision-making hierarchy should be able to establish reasonable and pragmatic cannabinoid detection benchmarks that both provide objective criteria for court decisions and protect clients from inappropriate or unsupportable consequences. Some courts may choose to use the cannabinoid elimination information detailed in this paper exactly as presented to establish a marijuana detection window that will allow the differentiation between abstinence and continued/renewed use. Other courts may decide to build into the guidance an additional safety margin, granting clients further benefit of the doubt. Regardless of the approach, however, courts are urged to establish detection benchmarks and utilize these scientifically supportable criteria for case disposition.

Every day drug courts grapple with two seemingly disparate imperatives—the need for rapid therapeutic intervention (sanctioning designed to produce behavioral change) and the need to ensure that the evidentiary standards, crafted to protect client rights, are maintained. While administrative decision-making in a drug court environment (or a probation revocation hearing) does not necessitate the same due process requirements and protections that exist in criminal cases, as professionals we are obliged to ensure that court decisions have a strong evidentiary foundation.

Courts establishing detection windows for cannabinoids need to be aware of the existence of research studies indicating prolonged elimination times in urine. It is not recommended, however, that drug courts manipulate their detection windows to include these exceptional findings.

Sound judicial practice requires that court decisions be based upon case-specific information. In weighing the evidence, courts also acknowledge the reality that a particular client's individualities or the uniqueness of circumstances may not always allow the strict application of cannabinoid detection window parameters in a sentencing decision. These uncommon events, however, should not preclude the development of cannabinoid detection windows for the use in the majority of court determinations.

CLIENT DETOXIFICATION: THE "CLEAN OUT" PHASE

[10] As a result of the extended elimination of cannabinoids (as compared to other abused drugs), some drug courts have instituted a detoxification stage or "clean out" period in the first phase of program participation. This grace period allows new clients a defined time frame for their bodies to eliminate stores of drugs that may have built up over years of substance abuse without the fear of court sanctions associated with a positive drug test. In many cases this detoxification period extends for 30 days, which corresponds to the commonly held assumption that this represents the time period required for marijuana metabolites to be eliminated from a client's system.

Regardless of the origin of the 30-day marijuana detection window and its influence on the duration of the detoxification period, 30 days is certainly an equitable time period for client drug elimination purposes. Simply because the science may not support the necessity of a detoxification period of this duration does not mean that a court cannot use the 30-day parameter in order to establish program expectations. However, based upon the cannabinoid detection guidelines presented in this review, it is unlikely (utilizing *reasonable* physiological or technology criteria) that a drug court client would continue to remain cannabinoid positive at the end of this designated abstinence period. After 30 days,

using either a 20 or 50 ng/mL testing cutoff, continued cannabinoid positive urine drug tests almost certainly indicate marijuana usage at some point during the detoxification period and should provoke a court response to reinforce program expectations.

ABSTINENCE BASELINE

[11] The abstinence baseline can either be a point at which a client has *demonstrated* their abstinence from drug use via sequentially negative testing results (actual baseline) or a court-established time limit after which a client *should not* test positive if that client has abstained from marijuana use (scientific baseline). Each baseline has importance in a court-mandated drug monitoring program. The later has been the focus of this review. It is exemplified by establishing the detection window for marijuana and utilizing positive urine drug testing results to guide court intervention. Individuals who continue to produce cannabinoid positive results beyond the established detection window maximums (the scientific baseline) are subject to sanction for failing to remain abstinence during program participation.

The alternative approach uses negative test results in establishing the actual abstinence baseline. This has been referred to as the “two negative test approach” and has been previously described in the literature (Cary, 2002). A drug court participant is deemed to have reached their abstinence baseline when two consecutive urine drug tests yielding negative results for cannabinoids have been achieved, where the two tests are separated by a several day interval. Any positive drug test result following the establishment of this baseline indicates new drug exposure. This technique can be used with assays that test for marijuana at either the 20 or 50 ng/mL cutoff concentration.²

²Research data indicates that in the terminal phase of cannabinoid elimination, subjects can produce urine samples with levels below

CANNABINOID TESTING FOLLOWING POSITIVE RESULTS

[12] Due to the prolonged excretion profile of cannabinoids in urine (especially after chronic use) some drug court programs wrestle with the issue of whether to continue urine drug testing during the expected marijuana elimination period. Simply put, why continue the expense and sample collection burden for clients who have already tested positive for cannabinoids knowing that the client may continue to produce positive cannabinoid results for many days? There are at least three principle reasons drug courts are not advised to suspend urine drug testing following a positive result for cannabinoids.

First, most court-mandated testing includes drugs other than marijuana. Client surveillance often encompasses testing for many of the popularly abused substances such as amphetamines, cocaine, opiates, and alcohol. Programs that forego scheduled testing run the very real risk of missing covert drug use for substances other than marijuana. If a drug court client knows a positive cannabinoid test will result in a drug testing “vacation,” they may use that non-testing period

the cutoff concentration (negative results), followed subsequently by samples with levels slightly above the cutoff (positive results) (Huestis, 2002). This fluctuation between positive and negative did not occur in all subjects and in those that did exhibit this pattern, the fluctuation was generally transitory. Based on this elimination pattern, it is recommended that programs using a cannabinoid cutoff of 50 ng/mL allow an interval of at least three days between the two negative result samples to establish the abstinence baseline. It is further recommended that programs using the 20 ng/mL cannabinoid cutoff allow an interval of at least five days between the two negative result samples to establish the abstinence baseline. If a program’s testing frequency is greater than every five days (using the 20 ng/mL cutoff), a total of three or more negative tests may be required before the five-day interval is achieved.

to use substances with shorter detection windows (i.e. cocaine or alcohol). By continuing to test, the court maintains its abstinence monitoring for drugs besides marijuana.

Second, from a programmatic standpoint the suspension of scheduled client drug testing sends the wrong therapeutic message. If a drug court's policies and procedures require a certain schedule of testing, suspending testing for even a short period may appear to other program participants that the court is "rewarding" a client who has tested positive. Eliminating scheduled drug tests in response to a positive cannabinoid result degrades the program's efforts at maintaining client behavioral expectations.

Lastly, depending upon the cutoff concentration of the drug test being used and whether the client's marijuana usage was an isolated event (rather than a full relapse), it is entirely possible that a client who has previously tested positive for cannabinoids may test negative sooner than the cannabinoid detection window estimate. As indicated earlier, acute marijuana use results in cannabinoid positive urine samples for only several days following exposure. Curtailing drug testing for longer than three days extends unnecessarily the period of uncertainty about a client's recent behavior and may delay appropriate therapeutic strategies or sanction decisions.

COURT EXPECTATIONS AND CLIENT BOUNDARIES

[13] One of the most important prerogatives of drug court (or any therapeutic court) is to clearly define the behavioral expectations for clients by establishing compliance boundaries required for continued program participation. Drug testing used as a surveillance tool defines those boundaries and monitors client behavior in order that the court can direct either incentives or sanctions as needed to maintain participant compliance. To fulfill this important

responsibility, drug courts teams must agree upon specific drug testing benchmarks in order to apply court intervention strategies in an equitable and consistent manner.

The primary focus of this article is to promote the establishment of a drug testing benchmark that defines the expected detection window of cannabinoids in urine following the cessation of smoking. In order for drug courts to determine their cannabinoid detection window, the program will need to consider the cutoff concentration of the urine cannabinoid test being utilized and develop criteria for defining chronic marijuana users. Drug courts should also take into account how the cannabinoid detection window will be incorporated into their current policies and procedures and how the detection window will be used in case adjudication. Once established, the court should apprise program participants of the expectations associated with the cannabinoid detection window. Clients should understand that sanctions will result if continued cannabinoid positive tests occur beyond the established detection window (the drug elimination time limit after which a client should not test positive if that client has abstained from marijuana use). Courts are reminded that the cannabinoid detection window may require revision if there are modifications to the drug testing methods or if there are significant changes in marijuana usage patterns in the court's target population (i.e., significant increases in chronic use).

Practitioners are reminded that the goal in establishing a cannabinoid detection window is not to ensure that a monitored client is drug free. Chronic marijuana users may carry undetectable traces of drug in their bodies for a significant time after the cessation of use. Rather, the goal is to establish a given time period (detection window limit) after which a client should not *test* positive for cannabinoids as a result of continued excretion from prior usage.

Finally, the cannabinoid detection window is a scientifically supportable, evidence-based effort to establish a reasonable and practical standard for determining the length of time cannabinoids will remain detectable in urine following the smoking of marijuana. Drug courts are reminded that science is not black and white and that the state of our knowledge is continually evolving. While detection window benchmarks will and should guide the sanctioning process for violations of abstinent behavior, courts are urged to judge a client's level of compliance on a case by case basis using all of the behavioral data available to the court in conjunction with drug testing results. In unconventional situations that confound the court, qualified toxicological assistance should be sought.

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ENDNOTES

ⁱ*Detoxing from Marijuana* (pamphlet). (1992). Marijuana Anonymous: 12-Step Program for Marijuana Addicts, 4. The entire text reads as follows: “Why do some effects last so long?” “Unlike most other drugs, including alcohol, THC (the active chemical in marijuana) is stored in the fat cells and therefore takes longer to fully clear the body than with any other common drug. This means that some parts of the body still retain THC even after a couple of months, rather than just the couple of days or weeks for water soluble drugs.”

ⁱⁱ Website: TeenHealthFX. URL:

<http://www.teenhealthfx.com/answers/12.html>. TeenHealthFX.com is a project funded by Atlantic Health System, a New Jersey hospital consortium. The website states that “the professional staff who answer questions from our vast audience and provide oversight include clinical social workers, health educators, adolescent medicine physicians, pediatricians and pediatric subspecialists, psychiatrists, psychologists, nurses, nutritionists, and many other health professionals.”

QUESTION: “Dear TeenHealthFX, smoking marijuana can be detected how long? I’ve heard a couple of weeks in urine, a couple of days in blood, and a couple of years in hair...please clarify! Also, during a routine physical at the doctor, will they check for marijuana in the blood or urine sample? Signed: Longevity Of Marijuana - How Long Does It Stay In Your System”

ANSWER: “Dear Longevity Of Marijuana - How Long Does It Stay In Your System,

The chemical in marijuana, THC, is absorbed by fatty tissues in various organs. Traces of THC can be detected by standard urine and blood tests for about 2 days up to 11 weeks depending on the person’s metabolism, how much they smoked and how long they smoked. THC can be detected for the life of the hair. Again, the sensitivity of the test ranges from person from to person depending on many factors including the amount of body fat, differences in metabolism, and how long and how much they smoked.”

Presumably, the 11 week estimate comes from the research finding of Ellis, et. al. (1985) which has been described earlier.

ⁱⁱⁱ Bureau of Justice Assistance Monograph entitled: *Integrating Drug Testing into a Pretrial Services System: 1999 Update*, July 1999, NCJ # 176340. On page 48, Exhibit 5-3 titled; Approximate Duration of Detectability of Selected Drugs in Urine lists Cannabinoids (marijuana) Chronic heavy use as 21 to 27 days. Source: Adapted from the Journal of the American Medical Association's Council on Scientific Affairs (1987, p. 3112).

The source material citation is the *Journal of the American Medical Association*. (1987, June) 12;257(22):3110-4. The article is titled; "Scientific Issues in Drug Testing—Council on Scientific Affairs." On page 3112, Table 2. titled "Approximate Duration of Detectability of Selected Drugs in Urine" lists chronic heavy smoker as 21-27 days. The references cited for this data are Dackis, et. al (1982), and Ellis, et. al. (1985), the potential shortcomings of both have been discussed in this article. It is noteworthy and illustrative that this 1999 "updated" publication still relies on research performed in 1982 and 1985.

^{iv} *Cannabinoid Issues: Passive Inhalation, Excretion Patterns and Retention Times* (pamphlet). (1991). Dade Behring, SYVA Company, S-10036. On page 25 in a table titled: "Emit d.a.u. Cannabinoid Assay (20 ng/mL)" is listed the following:

All Subjects (n = 86):

First Negative: Mean = 16.0 days Range = 3-46 days

Last Positive: Mean = 27.1 days Range = 3-77 days

Examination of the references associated with this data indicates the following sources; Ellis, et. al. (1985), Schwartz, Hayden, & Riddle (1985), and Johansson & Halldin (1989). All of these references and their potential study design issues have been reviewed in this article. This pamphlet also contains cannabinoid elimination data using the Emit-st Cannabinoid Assay testing method. Given that this assay is no longer being manufactured, the data was not included.

^v Website: *What You Need to Know*. About.com URL: <http://experts.about.com/q/1319/718935.htm>. This is a popular website for general information inquiries about almost any subject matter. In a section entitled “About Our Service” the website states, “Allexperts, created in early 1998, was the very first large-scale question and answer service on the net! We have thousands of volunteers, including top lawyers, doctors, engineers, and scientists, waiting to answer your questions. All answers are free and most come within a day!”

The question submitted to the site was, “How long does marijuana stay in your system?” The expert response was: “The average time pot stays in your system is 30 days. The time may differ depending on your metabolism. If you have a fast metabolism it may be shorter than 30 days, if you have a slow metabolism it may be more. The average though is about 30 days.” Note that in this answer, 30 days is given as an *average* cannabinoid elimination time.

^{vi} Website: Health Choice of New York. URL: <http://www.clearchoiceofny.com/drugtestinfo.htm>. This website states: “It’s One Stop Shopping For All Of Your Detoxifying Needs. We Have All The Products You Need To Pass A Urine Drug Test.” In a section entitled “Drug Approximate Detection Time in Urine,” the site provides the following information: “Cannabinoids (THC, Marijuana) 20-90 days.”

^{vii} Website: IPassedMyDrugTest.Com. URL: http://www.ipassedmydrugtest.com/drug_test_faqs.asp#detect_time Site’s home page statement: “Pass your drug test the safe and healthy way. Our programs and drug testing kits are designed to ensure that you pass your test. We provide same day and permanent detoxification programs that have been tested over time since 1993 with proven results to remove all drug metabolites and unwanted toxins from your system. We understand how important it is to pass your drug test. Our customers always come first while providing fast shipping and responsible service with guaranteed passing results.”

The following table is provided:

Cannabinoids (THC, Marijuana) Detection Time:

1 time only	5-8 days
2-4x per month	11-18 days
2-4x per week	23-35 days
5-6x per week	33-48 days
Daily	49-63 days

^{viii} Website: HealthWorld Online. URL:

<http://www.healthy.net/clinic/lab/labtest/004.asp>. Site's mission statement; "HealthWorld Online is your 24-hour health resource center—a virtual health village where you can access information, products, and services to help create your wellness-based lifestyle." In the section called "Detection of Cannabinoids in Urine," the following information is provided: "Cutoff and Detection Post Dose: The initial screening cutoff level is 50 ng/ml. The GC/MS cutoff level is 15 ng/ml. The elimination half-life of marijuana ranges from 14-38 hours. At the initial cutoff of 50 ng/ml, the daily user will remain positive for perhaps 7 to 30 days after cessation. At the confirmation level of 15 ng/ml, the frequent user will be positive for perhaps as long as 15 weeks."

^{ix} Website: Dr. Drew. URL:

<http://drdrew.com/Office/faq.asp?id=1083§ion=5002>

QUESTION: How long does pot (or other drugs) stay in your body? Is there any way to detect it?

ANSWER: Most readily available drug screens are tests of the urine. Blood tests and breath analyzers are another way substances can be detected. Pot stays in your body, stored in fat tissues, potentially your whole life. However, it is very unusual to be released in sufficient quantities to have an intoxicating effect or be measurable in urine screens. Heavy pot smokers, people who have smoked for years on a daily basis, very commonly have detectable amounts in their urine for at least two weeks.

RESEARCH UPDATE

**REPORTS ON RECENT
DRUG COURT RESEARCH**

This issue of the Drug Court Review synthesizes reports on three studies in the field of drug court research and evaluation: Evaluation of Program Completion and Rearrest Rates across four Drug Court Programs; Evaluation of Outcomes in Alaska's Three Therapeutic Courts; and Process Evaluation of Maine's Statewide Adult Drug Treatment Court Program.

ARTICLE SUMMARIES

**FOUR DRUG COURT SITE
EVALUATION**

[14] This evaluation of four drug courts across the country seeks to identify those factors that specifically impact program completion status (graduation or expulsion) and post-program rearrest rates. Overall findings indicate that offenders who successfully complete the drug court program through graduation are less likely to be arrested within a 12-month post-program period than expelled participants.

**ALASKA'S THERAPEUTIC
COURT EVALUATION**

[15] In 2004, the Alaskan State legislature funded an evaluation of the effectiveness of the State's three therapeutic drug court programs. Preliminary findings indicate that graduates of the programs show significant reductions in incarceration days, fewer remands to custody, and fewer convictions two years after participation in comparison to non-participants.

**MAINE'S ADULT DRUG
COURT PROGRAM**

[16] Maine is one of two pioneer states to have successfully implemented a statewide adult drug court program. This report summarizes how key components of the drug court model—drug testing, sanctions, and treatment—operate in Maine, and presents an evaluation of the effectiveness of these components across a variety of process measures including how they contribute to participant success.

**EVALUATION OF PROGRAM COMPLETION AND
REARREST RATES ACROSS FOUR DRUG COURT
PROGRAMS¹**

*Donald F. Anspach, Andrew S. Ferguson,
and Vincent Collom*

EXECUTIVE SUMMARY

The findings presented in this research report are from a larger study to test the efficacy of substance abuse treatment provided as part of a drug court program. In this update, results from an evaluation conducted in four drug courts across the country (California, Louisiana, Oklahoma, and Missouri) are presented. This study seeks to identify those factors that specifically impact program completion status (graduation or expulsion) and post-program rearrest rates. Data were collected from a sample of 2,357 drug court participants in four drug court sites and were analyzed using multivariate and step-wise regression methods.

While there are site variations in program completion rates and post-program rearrest rates, the most significant factor found to be associated with variations in recidivism rates in this study is program completion status; and differences by discharge status are statistically significant in all four sites. Findings indicate that offenders who successfully complete the drug court program through graduation are three times less likely to be arrested within a 12-month post-program period than expelled participants. In sum, while these four drug court programs are contributing to

¹ Taken from Anspach & Ferguson (2003) "Assessing the Efficacy of Treatment Modalities in the context of Adult Drug Courts," funded by the National Institute of Justice (NIJ Grant No. DC VX 0008). Dr. Donald Anspach, Dr. Faye Taxman, Dr. Jeff Bouffard, and Andrew Ferguson conducted the research reported on in this update.

reductions in recidivism rates overall, it appears they are having their greatest effect on those individuals who successfully complete the program.

METHODOLOGY

[14] The findings presented here, which are drawn from the larger study conducted to assess the efficacy of substance abuse treatment in the context of adult drug courts², focus on the retrospective analysis of factors—specifically, drug court participation, treatment, and drug testing—found to affect program completion and post-program arrests. Employing multivariate and step-wise regression methods, findings provide information on compliance with drug court program requirements, those factors that contribute to the likelihood of graduation or expulsion, and the extent to which these combined measures affect post-program rearrest rates.

Fieldwork was conducted between February 2001 and May 2002 with a sample of 2,357 participants enrolled in one of four drug court programs who were either terminated or had graduated, for whom both a minimum amount of follow-up time (12 months) had elapsed since graduation or discharge, and for whom National Crime Information Center (NCIC) criminal history information was available.

The Four Drug Court Study Sites. The four drug court sites include two located in relatively rural areas and two located in more urban settings. These sites were selected because their programs had been in operation long enough to have institutionalized their procedures. Site 1, is a relatively large, long-running court in a medium-sized California city,

² Findings from the treatment component of the study consisting of an analysis of observations of substance treatment sessions, and surveys of treatment counselors are available elsewhere, e.g., Bouffard & Taxman (2003, 2004).

which utilizes existing drug treatment providers within the local community. Site 2 is a rural court operating in Louisiana with a dedicated treatment provider that is part of the local county government. Site 3 is also a small, rural court operating in Oklahoma, which at the time of the evaluation was using two private treatment providers within the community. Finally, Site 4 is a large court operating in a medium-sized city in Missouri. This court, similar to Site 2, made use of a dedicated treatment provider that was part of the court itself and operated by local government.

Data Collected. Participant level data collected includes general demographics, treatment attendance, outcomes of drug and alcohol testing, program completion status, and NCIC post-program arrest information. Program information collected on participants includes drug court program start and end dates, frequency of treatment sessions attended, number of drug tests administered, and corresponding drug test results. Information on drug court participation, compliance with program expectations, and demographic information was linked with NCIC rearrest data to assess the impact of drug court participation on post-program rearrests in a twelve month post-program follow-up period.

Clients. The majority of participants in the study are males (65%). This is consistent across sites with the exception of Site 1 where there are more females (54%). There are also few age differences across sites and participants' ages range between 17 and 64 with a mean age of 31 years. Approximately half of all drug court participants are white (51%). Non-white participants are predominately found at the Site 2 (46%) and Site 4 (68%) programs. The majority of drug court participants are not married (86%) ranging from a low of 77% at Site 3 to a high of 92% at the Site 1 drug court. Less than half of the participants across sites (42%) have dependents. Participants with dependents range from a low of 13% at Site 1 to a high of 59% at Site 3. With the exception of Site 3, where most participants were employed

at the time of their admission (63%) and had completed their high school education (63%), participants at the three other sites were typically unemployed and most had neither completed high school nor obtained their GED. Participants who completed high school or obtained a GED range from a low of 29% (Site 1) to a high of 63% (Site 3).

FINDINGS

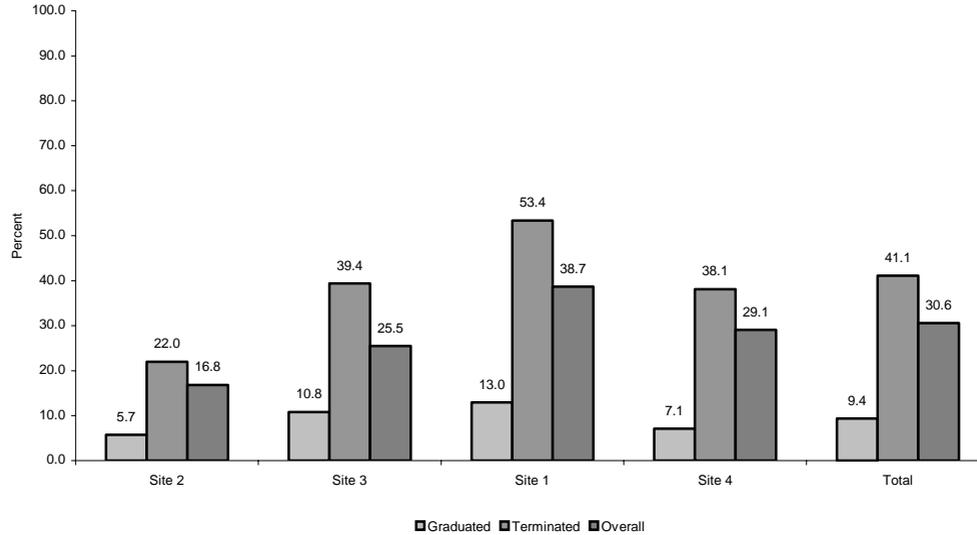
Overall, 779 (33%) of the 2,357 participants successfully completed the drug court program through graduation and 1,578 (67%) were terminated or expelled. Graduation rates range between a low of 29% at Site 4 to a high of 48% at Site 3. Program completion rates in this study are somewhat lower than reported nationwide. For example, in his review of 37 drug court research evaluation studies, Belenko (2001) reports that graduation rates across eight drug court programs averaged 47%, and range between 36% and 60%.

A total of 31% of the 2,357 participants had one or more post-program arrests during the twelve-month follow-up period. As shown in Figure 1, cross-site variations in the percent of post-program arrests range from a low of 17% at Site 2 to a high of 39% at Site 1. Post-program recidivism rates reported here fall within the range of recidivism rates reported nationally. In comparison with other sites, the Site 2 drug court has the lowest rate of recidivism for both graduates (6%) and terminated participants (22%). Conversely, the Site 1 drug court has the highest rate of post-program arrests for both program graduates (13%) and terminated participants (53%).

The most significant factor found to be associated with variations in recidivism rates in this study is program completion status. Overall, 41% of terminated participants but only 9% of graduates had a post-program arrest. Differences by discharge status are statistically significant in

all four sites. Simply stated, only 73 of the 779 graduates from the drug court programs were involved in a criminal offense leading to an arrest within one year after graduation. Furthermore, program graduates show substantially lower post-program arrests than terminated participants, as 90% of the 722 arrested participants had been expelled and 10% were program graduates. This finding indicates that offenders who successfully complete the drug court program through graduation are three times *less* likely to be arrested within a 12-month post-program period than expelled participants. Moreover, it was found that drug court graduates who were arrested had a longer period of exposure beforehand. In sum, while these four drug court programs are contributing to reductions in recidivism rates overall, it appears they are having their greatest effect on those individuals who successfully complete the program.

This report examines how variations in post-program arrests during the 12-month follow-up period are related to differences in participant characteristics, various program compliance requirements such as drug use and treatment attendance, as well as program discharge status. The results of a series of logistic regression models and path analyses indicate that participant compliance with key components of the drug court model operate through program completion, thereby affecting post-program recidivism. Other factors associated with post-program recidivism at one or more sites include: treatment attendance, with participants with lower attendance at treatment sessions having a greater likelihood of being arrested following program discharge; having an in-program arrest, with participants with in-program arrests being twice as likely to have a subsequent post-program arrest; race/ethnicity, with racial and ethnic minorities being more likely than white non-Hispanics to be arrested; age at first arrest, with participants who have prior arrests at

Figure 1. 12-Month Follow-up Post-Program Arrest Outcomes

younger ages being more likely to be rearrested; and gender, with males being more likely to have a post-program arrest.

Since the findings are site dependent, there is no one overall “best fitting” logistic model. At each drug court site, a specific set of variables—primarily related to participant compliance with the expectations of the program as distinct from participant demographic characteristics—are operant. Operant factors affecting the recidivism outcomes at one or more sites revealed by the path analysis include: program completion, treatment attendance, in-program arrests, positive drug tests, race, age, and prior treatment experiences. That is, participants who comply with the performance expectations of drug court programs and attend treatment sessions are less likely to recidivate than non-compliant participants.

At the Site 2 drug court, where discharge status was not a significant predictor of recidivism, the low overall rate of recidivism found may be related to the high overall rate of treatment attendance. The Site 1 drug court program had the highest rates of recidivism with the highest percent of post-program arrests for drug related offenses. In-program arrests at the Site 3 drug court were related to post-program arrests. And, participants at this drug court with in-program arrests were six times more likely to recidivate during the post-program follow-up period. Finally, at the Site 4 drug court, positive in-program drug tests were related to post-program recidivism.

CONCLUSION

Overall, the findings from this research confirm what has been found in other studies—namely that drug court graduates “succeed” and terminated participants “fail.” This finding has important policy implications nationally, as it suggests that improvements in program retention and program completion should remain focal points of drug court programs.

The drug court program is defined by a collaborative process to assemble and direct a variety of resources from numerous agencies toward the achievement of mutual goals. In this respect, drug courts are not intended to provide a “quick fix,” rather, they are designed to overcome the boundaries of historically independent systems (Hartmann & Rhineberger 2002). As documented in this paper, the adult drug court model can be an effective intervention to reduce recidivism for substance abusing offenders. However, results of this study and others should also remind policy makers that drug courts are effective for only some offenders. As Harrell (2003) points out, drug courts are not a magic bullet—many drug court participants fail. Yet, findings of this and other major studies of drug court programs have not identified theoretical flaws in the ‘drug court’ model, and thus, continued enthusiasm for drug treatment courts is warranted.

**EVALUATION OF OUTCOMES IN THREE
THERAPEUTIC COURTS IN ALASKA:
PRELIMINARY FINDINGS**

Alaska Judicial Council

Report submitted to the Legislature and the Alaska
Department of Health and Social Services
with the cooperation of the Alaska Court System
April 2005

EXECUTIVE SUMMARY

In 2001, the Alaska state legislature created two new therapeutic courts for felony defendants with alcohol problems to supplement a federally funded therapeutic drug court that has been in operation since 2000. In 2004, the legislature funded the Alaska Department of Health and Social Services to conduct an evaluation of the effectiveness of all three therapeutic courts.³ Effectiveness of the therapeutic court process was measured using three criteria: number of incarceration days, number of remands, and number of convictions within two years following entry into the therapeutic court as compared to the two years prior to entering the program. Data was collected on every defendant who had voluntarily chosen to participate in one of the three court programs (N = 154), and was compared to data collected on a comparison group of defendants with similar

³The completion of outcome evaluation studies for these three courts was a condition of the receipt of federal funds. The U.S. Department of Justice required evaluations of all felony drug courts created with its grants (such as the Anchorage Felony Drug Court). HB172, section 1 (k) requires that “The Council shall evaluate the effectiveness of the pilot therapeutic courts programs by developing baseline information and comparing that data with on-going program results as reported by the therapeutic courts, and prepare a report to the legislature, courts, and affected agencies.”

characteristics who did not participate in one of the three therapeutic courts (N = 104).

Components of the therapeutic court programs include participating in outpatient treatment, frequent testing for drug and alcohol use, maintaining steady employment or educational pursuits, making restitution to victims, and regularly appearing before the judge. Across the three courts, findings show that participants of the therapeutic courts, in comparison to non-participants, exhibit an improved quality of life including more stable family situations, better education and employment outcomes, and improvements for their children. Additionally, program graduates show significant reductions in incarceration days, fewer remands to custody, and fewer convictions.

METHODOLOGY

[15] The preliminary findings presented in this report are from an evaluation of three therapeutic drug courts to compare outcomes of participating defendants [including graduates (N = 32), current participants (N = 63), and those who had started the program but withdrew before completion (N = 59)] to outcomes from a similar group of defendants who did not participate in the court programs. Specifically, for drug court participants, secondary data was coded from the drug court database to compare changes in days of incarceration, numbers of remands, and convictions. This data was compared to baseline data from a 1999 sample of felony drug court participants to compare the measures of interest two years following entry into the therapeutic court program to the two years prior; thus providing a ‘before’ and ‘after’ time frame for comparison within each drug court participant/non-participant comparison group.

Data Collection. In the Site 1 court, data was collected on 30 participants and a comparison group of 20 non-participants identified by the court and prosecutor as defendants who were

considered for participation in the drug court program but chose not to enroll. In the Site 2 court, data was collected on 73 participants and 54 non-participants (34 of whom had chosen not to participate in the program and 20 randomly selected defendants from the same time period who had not considered the therapeutic court option). Finally, in the Site 3 court, data was collected on 51 participants and 30 non-participants.⁴ Data sources include interviews with court officials, court case files, Department of Public Safety records of prior offenses, and Department of Corrections' records on remands to custody and days of incarceration for all defendants. Information specific to therapeutic court participants that was not available from court records was also collected from the felony probation officers assigned to the Site 1 and Site 2 courts at the time⁵—information includes defendant's employment status, educational status, and other measures of improvement in accountability and quality of life. Baseline data was extrapolated from data previously collected by the Alaska Judicial Council on felony defendants.⁶

Client Groups. Of the 258 defendants (154 drug court and 104 comparison), there are no significant differences between the groups in age (overall mean of 35 years), gender (78% male), ethnicity (44% white; 44% Alaskan Native/American Indian), level of offense, and seriousness of charged offense. In comparison to the 1999 baseline sample, the therapeutic

⁴ Ideally, with more resources, a matched control group of defendants who had not been referred to, or shown interest in, the therapeutics courts would be preferable. Given the Council's presented findings that the current group tended to be well matched except on prior criminal history, future evaluators should pay particular attention to matching defendants on criminal history.

⁵ The Department of Corrections has since withdrawn the federal probation officers from the therapeutic courts programs.

⁶ See Carns, T.W., Cohn, L. & Dosik, S.M. (2004). *Alaska Felony Process: 1999* (www.ajc.state.ak.us, under "Publications.")

court sample (defendants and non-participants) tends to be older, with about one-third of this group being over the age of 40 as compared to only 22% of the baseline sample. There are also differences across sites with respect to gender, with the Site 1 court having the highest number of female defendants (50%) and the Site 3 court having the fewest (12%).

The whole therapeutic court sample includes somewhat more Native defendants than does the 1999 baseline group. In the therapeutic court group, Natives comprise 44% of defendants, as compared to 30% of the 1999 group. Whites also comprise 44% of the therapeutic group as compared to 50% of the 1999 group. And, while white defendants predominated in the Site 1 and Site 2 courts, they comprised only 10% of the Site 3 court; in this court, 88% of defendants are Native.

There is a difference between the groups with respect to criminal history in that the comparison group has fewer recorded serious offenses. In addition, prior criminal histories of defendants vary by site. While the majority of participants at Site 1 and Site 2 have prior felony convictions (73% and 60% respectively), only 49% of the Site 3 defendants do. These numbers are even lower in the comparison group: only 40% of the Site 1 comparison defendants, 43% of the Site 2 comparison defendants, and 23% of the Site 3 comparison defendants have a prior felony.⁷

⁷ One possible reason for this is that the comparison groups were largely comprised of people who had been interested in the court, but who chose not to participate. Based on interviews with attorneys and judges, the differences between the two groups on prior record could be explained by the fact that the comparison group defendants with less serious criminal histories may have believed that the program was too lengthy and difficult, and that the time and conditions required by the program were substantially more onerous

In general, though differences are evident between the drug court and comparison groups, they are not substantial enough to preclude a comparison of outcomes between the groups.

FINDINGS⁸

The data show that comparison defendants in all three programs spent significantly more days incarcerated during the two years after their offense, while graduates and active participants spent fewer days incarcerated during the same period. Differences were also found when examining the number of remands and the number of convictions. Graduates and active participants had fewer remands and convictions after joining the program than in the two years prior to participating, while those in the comparison group had either more remands or showed no change.

Days of Incarceration. The days of incarceration before and after starting the therapeutic court program (or, for the comparison group, entering a plea) changed in expected ways for each group of defendants. Across the three drug court programs, graduates and those still active in the program have substantially fewer days of incarceration in the two years after joining the program, while the comparison group has significantly more days of incarceration during this same time period (Table 1). Results vary somewhat by site for those defendants who either opted out of the program or began the program and then dropped out. In the Site 1 and Site 2 courts, those who opted out or dropped out of the program also have more days of incarceration in the two year follow-up period; however, in the Site 3 court, this group of defendants has significantly fewer days of incarceration (at

than any possible penalties than they would occur in a straight sentencing.

⁸ The data presented in this section are based on analyses by the Institute for Social and Economic Research at the University of Anchorage under contract with The Judicial Council.

$p \leq .10$) in the two years post as compared to the two years prior to opting out of or dropping out of the program.

Table 1. Mean days of incarceration by court, defendant group, and program status

Site	Days 2 Years Prior	Days 2 Years Post	Sig.	N
<i>Site 1</i>				
Graduated	142	66	.12	10
Active	100	60	.62	7
Opted out/dropped out	187	249	.37	13
Not in program	104	208	.03	20
<i>Site 2</i>				
Graduated	71	31	.00	15
Active	177	88	.01	34
Opted out/dropped out	233	313	.07	24
Not in program	158	311	.00	50
<i>Site 3</i>				
Graduated	140	7	.07	7
Active	124	22	.00	22
Opted out/dropped out	243	155	.08	22
Not in program	115	182	.01	30

Remands to Custody. Remands to custody (for a probation or parole violation, or for a new offense) are considered part of the therapeutic court process, used if a defendant has a positive drug test or other violation of conditions of the program. As a result, it is expected that defendants in the drug court might have a higher number of remands to custody after beginning the program. However, the opposite result is found.⁹ Across the three drug court sites, graduates and

⁹ This result is due to the fact that participants in the therapeutic drug court program are so carefully supervised; problems are discovered earlier and handled with progressive sanctions rather than immediate remands to custody. The progressive sanctions, according to one interviewed policy-maker, give participants learning opportunities and reduce the need for remands. The fact that all of those active in or graduated from the drug court programs

active participants show fewer remands in the two years post-program in comparison to the two years before beginning the program (Table 2). For those who opted out or dropped out of the program, remands are either constant or higher in the two years post as compared to the two years prior. For those not in the program, however, remands are also either constant or lower in the two years post in all three sites (though these changes are not significant).

Table 2. Mean of remands by court, defendant group, and program status

Site	Days 2 years prior	Days 2 years post	Sig.	N
<i>Site 1</i>				
Graduated	2.5	0.8	.02	10
Active	2.7	2.4	.78	7
Opted out/dropped out	2.9	3.9	.16	13
Not in program	2.4	1.9	.55	19
<i>Site 2</i>				
Graduated	2.0	0.8	.00	15
Active	2.7	1.2	.00	34
Opted out/dropped out	3.4	3.3	.87	24
Not in program	3.1	2.1	.11	53
<i>Site 3</i>				
Graduated	7.7	1.0	.25	7
Active	5.2	3.9	.42	22
Opted out/dropped out	4.1	5.8	.09	20
Not in program	3.3	3.6	.77	30

Number of convictions. The third measure used to test the effectiveness of the therapeutic courts is a comparison of the change in the mean number of convictions between the periods before and after the program dates.¹⁰ A conviction

had lower numbers of remands suggests that the programs are successful in preventing problems for a substantial number of defendants.

¹⁰ For all groups, including the comparison groups, the instant offense was excluded from the analysis.

was coded as a charge for a new offense for which the defendant pled guilty (or was found guilty at trial). The process of arriving at a conviction is lengthier than that of a remand to custody, so there are fewer convictions across all groups in the two-year follow-up period (with the exception of the comparison group in the Site 1 court, though this increase was not significant). There are some variations by site and program status of the defendants as shown in Table 3.

Table 3. Mean of convictions by court, defendant group, and program status

Site	Days 2 years prior	Days 2 years post	Sig.	N
<i>Site 1</i>				
Graduated	1.0	0.5	.03	10
Active	1.7	0.4	.04	6
Opted out/dropped out	2.1	1.4	.43	13
Not in program	1.3	1.6	.52	20
<i>Site 2</i>				
Graduated	0.7	0.1	.07	15
Active	1.5	0.1	.00	33
Opted out/dropped out	2.0	1.0	.08	23
Not in program	1.4	0.3	.00	54
<i>Site 3</i>				
Graduated	0.7	0.2	.10	7
Active	2.3	0.2	.00	21
Opted out/dropped out	2.7	0.7	.00	22
Not in program	1.3	0.6	.14	30

Qualitative Changes for Therapeutic Court Participants.

The statistically measurable outcomes for therapeutic court participants are not the only valid way to assess the effectiveness of the programs. Other information about changes in educational and employment status, stability in family situations, and benefits to the children of participants is just as important. Information on these measures was gathered through a review of client case files by probation

officers responsible for the Site 1 and Site 2 clients.¹¹ These observations were then combined with data drawn from the court case files to demonstrate the other types of benefits gained by individual participants and the larger community. These data, however, are not reported consistently in the case files, and thus, should not be used to make definitive statements regarding relative improvements; however, because this data is from objective sources and not from self-report data, they provide a reliable perspective on the experiences of program participants. Therefore, this information helps inform our understanding of the types of benefits that many therapeutic court participants have experienced. Examples of changes experienced by Site 1 and Site 2 participants include:

- 16% of graduates and 6% of those active in the programs appear to have improved their child support situations in terms of either providing more child support to non-custodial children or for those with custodial children, receiving more child support payments;
- 81% of graduates and 32% of those active in the programs have more stable family situations during or after participation;
- 63% of graduates and 46% of those active in the programs are holding a steady job following participation; and
- 41% of graduates and 21% of those active in the programs have improved their educational status following participation.

¹¹ For this report, qualitative data was not available on the clients in the Site 3 court program.

CONCLUSION

The findings from this evaluation of the three therapeutic courts that serve felony defendants suggest further steps for consideration by the courts, legislature, and participating agencies. In particular, findings demonstrate notable successes, both quantitative and qualitative, for the therapeutic court programs. Specifically, clear reductions in days of incarceration, the numbers of remands to court, and subsequent convictions were found for program participants, and probation officers noted improvements in the quality of life of program participants in the areas of employment, education, and family stability. Overall, the data support continuation and possible expansion of the therapeutic court programs.

Given that this evaluation suffered from a number of limitations, evaluations of court programs should be expanded. To address these limitations in future evaluations, studies should include a longer follow-up period, the establishment of baseline data drawn from the same sample of clients, and more data sources from which to draw information to analyze.

Finally, this evaluation largely found that most successful graduates of these therapeutic drug court programs have become employed, sober citizens, equipped with the tools to help prevent relapse and to remain accountable to their community. If defendants owed restitution to victims, these payments were made as part of the program. Sustaining and building on these accomplishments following participation in the drug court program through community support systems will benefit not only the defendants, but also their families and communities in the long term.

PROCESS EVALUATION OF MAINE'S STATEWIDE ADULT DRUG TREATMENT COURT PROGRAM

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Report submitted to Kimberly Johnson, Director
Maine State Office of Substance Abuse, Division of
Behavioral and Developmental Services
Augusta, ME (04333-0159)

EXECUTIVE SUMMARY

Maine is one of two pioneer states to have successfully implemented both a statewide adult drug court program and a statewide juvenile drug court program. The adult drug court program, begun in 2001 and implemented in five of the state's 16 counties, is a court-supervised, *post-plea* (but pre-final disposition), deferred sentencing program requiring weekly court appearances before a designated program judge.

This first report in a three-part series¹² summarizes how key components of the drug court model—drug testing, sanctions, and treatment—established by the National Drug Court Institute operate in Maine, and presents an evaluation of the effectiveness of these components across a variety of process measures including how they contribute to participant

¹² The second report focuses specifically on the delivery of treatment services and examines the implementation of the manualized treatment program, Differentiated Substance Abuse Treatment (DSAT). The third report is concerned with drug court outcomes. Specifically, using a comparison sample of substance abusing offenders who did not participate in the drug court program, the third report examines the overall impact of Maine's drug court program with a focus on recidivism outcomes and cost savings.

success. The key components of the drug court model evaluated include whether:

- eligible participants are identified early and promptly placed in the drug court program;
- drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitative services;
- abstinence is monitored by frequent alcohol and other drug testing;
- a coordinated strategy governs drug court responses to participants' compliance.

Maine's adult drug courts have incorporated these components in the daily operations of their programs. Moreover, findings reported here indicate positive program effects along all four dimensions. This report also outlines improvements that should be considered to increase program effectiveness at each of the five drug court sites.

METHODOLOGY

[16] To examine the efficacy of the core components of the drug court model including client supervision, drug testing, and sanctions—and how effectively sanctions and incentives, case management supervision, drug testing, and the delivery of ancillary services are integrated into program operations—this study draws on offender-level data obtained on 1,127 individuals referred to the drug court between April 1, 2001 and November 30, 2004; findings are presented both for this larger group as well as for a smaller group of 111 participants admitted to the program between December 1, 2003 and November 30, 2004. This data includes demographic characteristics, outcomes of drug and alcohol

testing, treatment attendance, and utilization of ancillary services.

Participant Characteristics: Of the 111 participants across the five drug courts admitted between December 1, 2003 and November 30, 2004, most are male (77%) and white (93%), with an average age of 31 years old. The majority of participants were employed at the time of their admission (64%; except in one site where only 41% were employed), and nearly half of the participants (47%) had neither completed high school nor obtained their GED. More than two-thirds (68%) of participants had a prior treatment episode for alcohol or drug use, and most offenders (85%) currently have a very serious substance abuse problem according to scores on the Computerized Screening Assessment.¹³ The predominant drugs of choice are opiates and alcohol, and the median age of first substance use is 14 years in the aggregate, as well as within each of the five sites,. Additionally, the mean age at which these participants first became involved with the criminal justice system is 20 years old (with an age range from 8 to 56). These participants also report a substantial volume of criminal activity, obtaining, on average, \$554.00 per week in illegal funds to support their drug habits; the amount of money reported spent to support their habit varied significantly by site from a low of \$124 per week to a high of \$1,195.

FINDINGS

One key component of the drug court model requires that eligible participants are promptly identified, screened, and admitted to the drug court program. Following is an examination of the relationship between referrals and

¹³ The Computerized Screening Assessment is an instrument used to provide an initial substance abuse screen to identify the severity of an offender's substance abuse problem. In this study, over 85% received substance abuse scores in the moderate to severe range.

admissions to determine the extent to which Maine's drug court program comports with this key component.

Enrolling Participants. During the most recent reporting period (December 1, 2003 through November 30, 2004), the program received a total of 327 new referrals—a 26% increase in referrals over the previous year. Of these referrals, only 111 (34%) new clients were accepted into the program. Across the five drug court sites, the number of referrals received and processed varies, with a low of 171 to a high of 266; the number of admissions ranges from a low of 73 to a high of 102. These findings suggest that efforts should be taken by the drug courts to increase the number of admissions, thereby expanding capacity. The variability found across sites in referral processing and admission rates—and the fact that there is a high rate of referrals as compared to a low rate of admissions—indicates that delays or log jams are occurring in the admissions process, thus reducing the state's overall capacity.

Processing Participants. Upon reviewing the basic steps that occur before a potential drug court participant is admitted to the program, as well as calculating the approximate amount of time (via state-wide averages) required to complete this process, clear delays in the length of time it takes for an offender to be admitted to the drug court program were found. Specifically, it was found that across the five sites it takes about 87 days between the date of initial referral and final admission to the program; this time frame not only exceeds the amount of time recommended by existing policies, but also fails to comport with the key component of drug court programs requiring early identification and prompt placement of participants.¹⁴ Overall, these findings indicate

¹⁴ This time frame also represents an increase of 12% over findings from an earlier report (2003) that indicate the time from referral to admission was 78 days. It should be noted, however, that two sites

that the state's adult drug court program has been unable to reduce the amount of time it takes for new clients to be admitted.¹⁵

Program Completion. Since the inception of the drug court program in 2001, a total of 330 clients have either been favorably or unfavorably discharged. Of these, 183 (56%) participants successfully completed the program through graduation and 147 (44%) participants were expelled. Graduation rates do not differ significantly across sites, and the overall program completion/graduation rate is 56%, a number which is higher than most statewide drug courts nationally (48%) and higher than rates recently reported by the GAO¹⁶ (46%).

Other key components of the drug court model include successful implementation of drug testing, supervision, sanctions and incentives, treatment, and ancillary services protocols. Following is a review of each of these components within Maine's drug court programs.

Drug Testing. Though state policy indicates a goal of two drug tests per person per week, the frequency of drug testing, as found in this evaluation period, has decreased. In fact, in

have reduced the length of time it takes, though these reductions are minimal.

¹⁵ In a more detailed analysis of the steps in the admission process to address where these log jams are occurring, the authors identified that the lengthiest step in the process (51 days) was between the completion of the comprehensive assessment interview (CAI) and final admission to the drug court—this represents an increase of 13 days over previous findings reported in 2003. The amount of time for determining final eligibility is clearly where the log jam is occurring.

¹⁶ U.S. Government Accountability Office. (2005, February). *Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes*. Report to congressional committees. Washington, DC: Author.

2004, the frequency of drug tests *decreased* by 18%, reducing the statewide average to 1.4 tests per person per week (with a range from a low of only 0.8 drug tests per person per week to a high of 1.7); and, this pattern of decreased drug testing occurred in three of the five drug court sites.

Based on drug testing results obtained for the 111 program participants reported on in this evaluation, of a total of 6,449 drug tests administered, 387 (6%) were positive for one or more drugs. This particular finding compares favorably with rates of positive drug tests across drug court programs nationally (17%) as well as for adult offenders in other non-institutionalized programs (35%).¹⁷ Across the five sites, 56% of participants did *not* test positive for drugs over the past year, 21% had one positive drug test, and 23% had two or more positive drug tests. Those testing positive averaged two positive tests with a range from one to nine. Furthermore, it was found that in the three sites where drug testing rates declined, rates of positive drug tests increased—suggesting that infrequent drug testing fails to serve as a deterrent, and that an increase in drug testing rates may result in more positive outcomes for participants.

Supervision via Home Visits. While improvements are evident in four of the five programs, overall, the drug court programs in the state are *not* in compliance with the new policy that requires a minimum of 2 unscheduled home visits per person per month. Controlling for length of program participation, findings indicate that participants, overall, received approximately 1.2 unscheduled home visits per month (with a range of a low of 0.5 visits to a high of 2.9)—an increase from the previous year, but still lower than the recommended policy. These findings are consistent across

¹⁷ American University Drug Court Clearinghouse and Technical Assistance Project. (2001, June 20) *Drug court activity update: Summary information on all programs and detailed information on adult drug courts*. Washington, DC: Author

sites with the exception of one program where participants receive 2.9 unscheduled home visits per month.

Sanctions and Incentives. Overall findings indicate that the drug court programs use of rewards and sanctions is consistent with a program of behavioral management in that it complies with the principle of providing more rewards (n = 690) than sanctions (n = 413). However, it was found that incarceration is the most heavily relied upon sanction (54%) in the program (and its use as a sanction increased by 15% from the previous reporting year), and the tendency for using incarceration as an initial rather than last sanction contradicts the principal of graduated sanctions. The most frequently used rewards are phase advancement (70%), followed by graduation (11%), and jurisdictional passes (8%).

Substance Abuse Treatment. Substance abuse treatment provided in the drug court programs is provided over the course of five phases. The first three phases include attending treatment sessions based on a formalized treatment curriculum, the DSAT program. The fourth phase also occurs during the one-year drug court program and consists of individualized treatment. The fifth phase occurs upon graduation from the drug court program and is a post-program aftercare phase. Upon examining the time spent in each phase of treatment prior to drug court graduation, wide variations in the total length of time spent in phases one through four (ranging from 34 weeks to 113 weeks) were found across sites in what is intended to be a standardized substance abuse treatment program.

Ancillary Services. This key component of drug court is designed to provide clients access to a continuum of alcohol, drug, and other related treatment, as well as rehabilitation services both during participation in the drug court and after program completion. To date, many drug court participants (37%) have been able to benefit from a number of ancillary services including crisis intervention, mental health

treatment, health care, and employment services. Of the 111 offenders in the current evaluation, 37% utilized at least one type of ancillary service and 20% utilized multiple types of these services. Conversely, 63% of clients did not utilize any ancillary services over the past year—a marked reduction of about 50% from previously reported findings. Significant variations in the utilization of ancillary services across sites were also found, with a range of a low of 9% utilization to a high of 96%. Overall, it was found that the use of psychiatric services and supplementary substance abuse treatment services are the most frequently utilized ancillary services.

CONCLUSION

Over the past four years, Maine has successfully operated an adult drug treatment court in five sites across the state; the findings presented in this report show that program operations are proceeding as implemented. The report does support the *efficacy* of the drug court program (a test of whether this intervention *can* be successful when properly implemented), but not necessarily its effectiveness (a test of whether this intervention *typically is* successful in actual clinical practice).¹⁸ Specifically, findings highlight broad variations in drug court practices and operations across the five sites. On the one hand, this suggests that the drug court model has been adapted to various local needs; on the other hand, some of the wide variations in practices and operations are actually in direct conflict with statewide protocols (e.g., drug testing, treatment, attendance, and home visits). Overall, drug court practices can be improved; the findings presented in this report suggest a number of ways to improve the operations (effectiveness) of various components of Maine's Adult Drug Court Program with goals of increased

¹⁸ See Marlow (2004, September 9) in Join Together Online for a discussion on the different standards of proof for establishing the efficacy of an intervention as opposed to its effectiveness (www.jointogether.org).

graduation rates, reduced rates of recidivism, and lower overall operational costs.

SUBJECT INDEX

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