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On Good Authority

ACQUISITIONS

AN EXECUTIVE BRIEFING ON TRENDS AND ISSUES IN CRIMINAL JUSTICE

MARCH 1995

Drug testing and community supervision

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Overview

Does drug testing deter probationer drug use? Does drug use increase if probationers are not provided with drug test feedback? Those were two of the questions researchers considered in a study recently conducted by the Illinois Criminal Justice Information Authority and the National Institute of Justice.

Background

Anecdotal wisdom has long held that drug testing deters probationer drug use. The reasoning behind the argument is that probationers generally prefer to avoid a potential consequence of continued drug use: incarceration.

Anecdotal wisdom has also long held that drug testing deters drug use most effectively when probationers are provided with test outcome feedback. The reasoning behind this argument is that most probationers need to be reminded that they cannot conceal illicit drug use and that the consequences are, indeed, incarceration.

Both arguments view incarceration as a sanction probationers attempt to avoid at all costs, and the logical extension of both arguments is that more testing is better than less testing. But increasingly, there is evidence to the contrary. Some probationers cannot control drug dependencies sufficiently to avoid detection. Others can control drug use but choose not to do so. Many probationers are not intimidated by the threat of incarceration.

In a 1992 effort to sort through the issues, the Authority funded a study in St. Clair County that examined the possible deterrent effects of drug test certainty. Participants were told there was just one chance in three that collected specimens would be tested, and they were frequently reminded that most specimens would not be tested. Contrary to expectations, drug use did not increase, casting doubt on the long-held belief that collected specimens must be tested. The study was brief and did not provide definitive answers, but it suggested that drug testing's deterrent effects do not diminish if most collected specimens are simply discarded.

Interested in the implications of that initial study, the NIJ joined the Authority in funding a more rigorous examination of the importance of drug test outcome feedback. This report examines some of the details of that second study, including the research design, population demographics and findings.

About the study

The purpose of this study was to help clarify the impact drug testing has on community-supervised offenders. The Authority is particularly grateful for the considerable contributions of time and effort of the probation administrators and staff in six Illinois counties: DuPage, Kane, McHenry, Madison, St. Clair and Sangamon.

The National Institute of Justice, without which the study could not have been conducted, provided partial funding and invaluable technical assistance. The Administrative Office of the Illinois Courts was instrumental in creating the opportunity to conduct the study.

Dr. Pamela K. Lattimore, a senior researcher with the National Institute of Justice, was the principal investigator. Dr. Joanna R. Baker of James Madison University and Dr. Lance A. Matheson of Virginia Tech provided technical assistance.

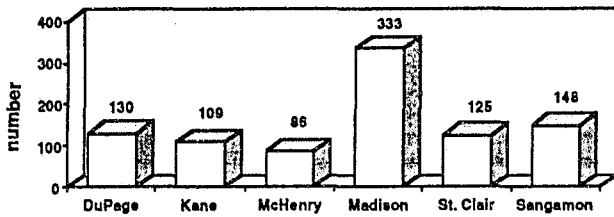
The study design

Six Illinois counties with intensive supervision programs for drug-dependent probationers participated in the study: DuPage, Kane, McHenry, Madison, St. Clair and Sangamon. A double-blind design was used to ensure that collected specimens could not be linked to participating probationers by probation department staff. Two counties, DuPage and Kane, used a Bayesian acceptance sampling feedback strategy in which some probationers were provided with drug test feedback and others were not. Madison and St. Clair counties provided no drug test feedback to study participants. The remaining two counties, McHenry and Sangamon, served as control sites and provided drug test feedback to all participants throughout the study. Baseline data collection occurred between Nov. 1, 1993, and Jan. 15, 1994 (2.5 months). Experimental data collection occurred between Jan. 17, 1994, and July 1, 1994 (5.5 months).

The study population

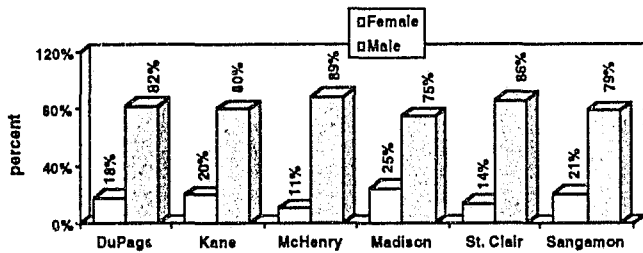
A total of 931 probationers participated in the study. More than one-third of the participants were from Madison County, one of the "no feedback" counties (Figure 1, next page).

Figure 1
Number of participants in study population



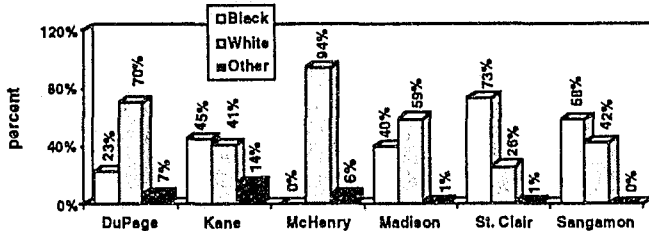
Approximately 80 percent of all study participants were male (Figure 2). McHenry County had the smallest proportion of females (11 percent), while Madison County had the largest proportion (25 percent).

Figure 2
Gender characteristics of study participants



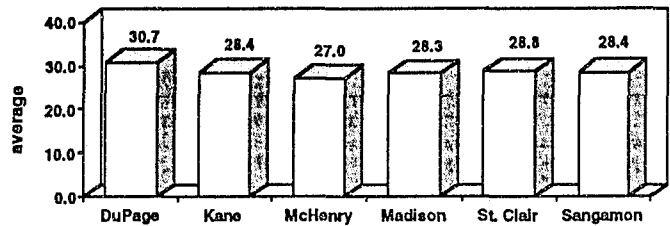
A majority of participants were white in DuPage, McHenry and Madison counties. Kane County had the most diverse caseload, and McHenry County had the least diverse caseload (Figure 3). Overall, 389 (42 percent) of the 931 participants were black, and 509 (55 percent) were white. Of the remaining 33 participants, 24 (3 percent of the total) were of Hispanic descent.

Figure 3
Racial characteristics of study participants



While program acceptance criteria varied considerably from county to county, there was very little difference in the average age of those who comprised the six caseloads. The oldest average age was in DuPage County (30.7 years), and the youngest was in McHenry County (27 years). The average age of study participants in each of the remaining four counties was 28.5 (Figure 4).

Figure 4
Average age of study participants

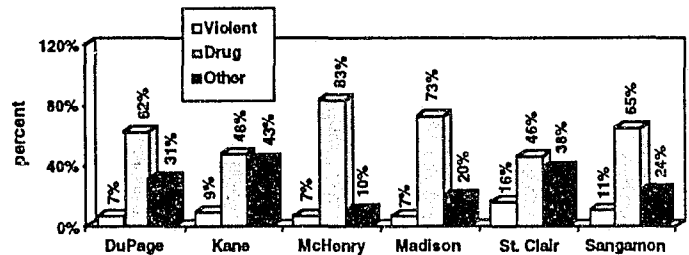


The oldest probationer in the study was 62.4 years old and was part of the St. Clair County caseload. Five of the six counties (all but St. Clair County) had one or more probationers under the age of 18.

Depending upon the county, the "typical" study participant was a black or white male in his late 20s. And, as figures 5 and 6 illustrate, most were nonviolent offenders with fewer than three prior felony and non-felony offenses.

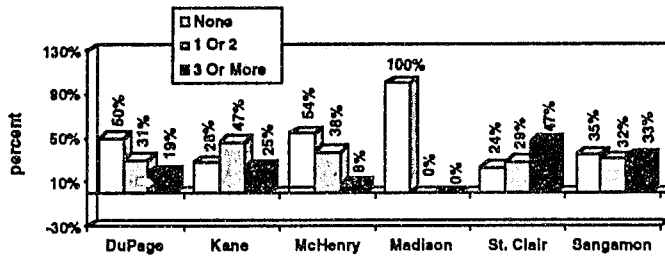
Most participants were convicted of nonviolent offenses when sentenced to the program (Figure 5). Of 18 violent offenders, two were convicted of rape, nine of robbery, and seven of assault. Of the remaining 913 nonviolent convictions, 67 were for burglary, 455 were for possession, 145 were for drug delivery, and 246 were for other offenses. St. Clair County had the largest proportion of violent offenders in the caseload (16 percent), McHenry County the largest proportion of drug offenders (83 percent), and St. Clair County the largest proportion of "other" offenders (38 percent).

Figure 5
Offense characteristics of study participants



Madison County had a "no priors" admission criterion (Figure 6) and was the only county with a first-time offender caseload. St. Clair County had the largest proportion of offenders with one or more prior offenses (76 percent) and the largest proportion of offenders with three or more prior offenses (47 percent). Overall, 59 percent of all study participants were first-time offenders; however, removing Madison County, just 34 percent of the participants in the other five counties were first-time offenders.

Figure 6
Prior offense characteristics of study participants

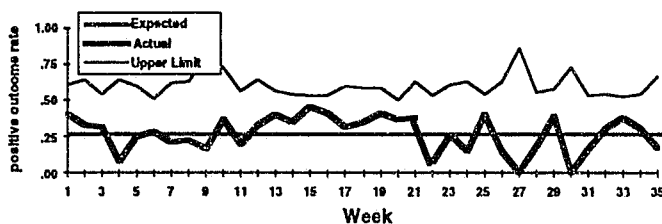


The findings

Control charts in figures 7 through 12 summarize drug test outcome data for each of the six study counties. Each chart includes the baseline average (expected) positive outcome rate for each county, the sample (actual) positive outcome rate each week or month, and the upper control limit. The upper control limit is a statistical tool used to signal unexpected and/or unacceptably high outcomes. The upper control limit was approached or exceeded in St. Clair County six times between the 28th and 33rd weeks (Figure 10).

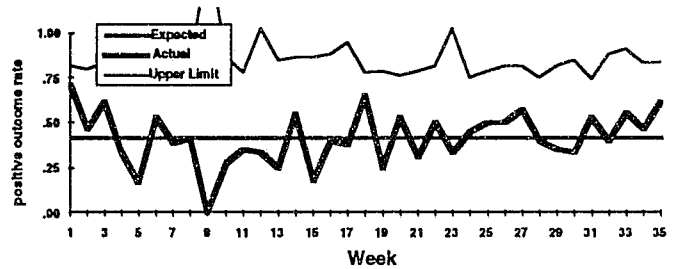
With respect to Figure 7, 29 percent of all DuPage County drug tests were positive for one or more drugs. Quality control acceptance sampling techniques were used to determine which probationers would receive feedback. In general, about 40 percent received feedback. Probationers selected for feedback were chosen randomly. All probationers received feedback during the first 11 weeks, the baseline period. Partial feedback began after the 11th week. The mean positive outcome rate was 27 percent for the first 11 weeks and 31 percent thereafter.

Figure 7
Test outcome control chart — DuPage County (partial feedback after week 11)



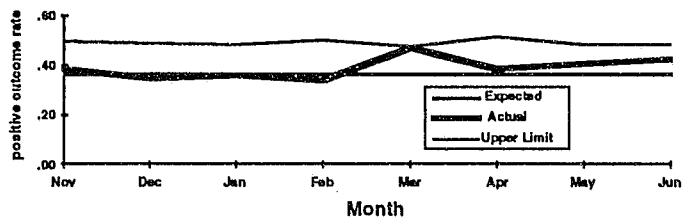
Reflecting differences in program admission criteria, 43 percent of all Kane County drug tests were positive for one or more drugs (Figure 8). Acceptance sampling was used to determine which probationers would receive feedback; about 75 percent did. The feedback ratio was higher in Kane County because there was more variability in test outcomes. The mean positive outcome rate was 42 percent for the first 11 weeks and 44 percent thereafter.

Figure 8
Test outcome control chart — Kane County (partial feedback after week 11)



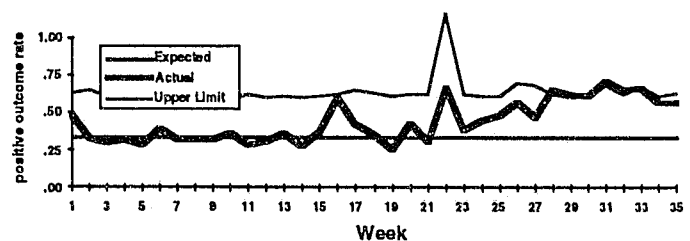
Madison County, a “no feedback” site after Dec. 31, provided monthly rather than weekly data. Overall, 39 percent of all study tests were positive. As Figure 9 illustrates, there was an increase in the positive drug test outcome rate when feedback stopped at the end of December. Nevertheless, test outcomes remained below the upper control limit throughout. The mean positive outcome rate was 36 percent prior to Jan. 1, and 40 percent thereafter.

Figure 9
Test outcome control chart — Madison County (no feedback after December)



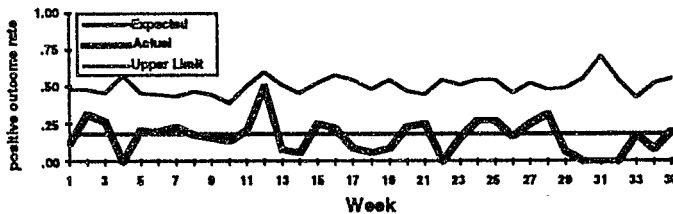
As with Madison County, St. Clair County was a “no feedback” site after the 11th week. The overall positive outcome rate was highest in St. Clair County at 44 percent (Figure 10). There was a clear trend toward increased drug use in the county between the 19th and 31st weeks, and that trend approached or exceeded the upper control limit beginning in the 28th week and continued through the 33rd week. The positive outcome rate was 34 percent during the first 11 weeks, and 47 percent thereafter. The very substantial increase in the positive outcome rate in St. Clair County after the 11th week suggests, but does not confirm, that drug testing feedback has at least some deterrent effect.

Figure 10
Test outcome control chart — St. Clair County (no feedback after week 11)



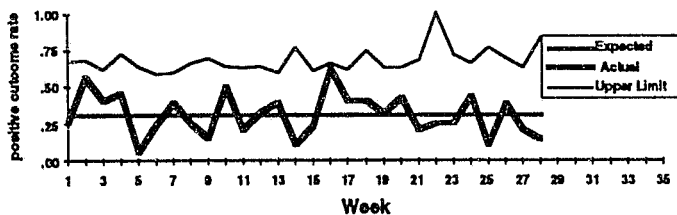
McHenry County probationers had the lowest overall positive outcome rate at 17 percent. The county was a control site, and probationers received drug test feedback throughout the study. The mean positive outcome rate was 19 percent for the first 11 weeks and 16 percent thereafter (Figure 11). The three percentage-point reduction in the site's positive drug test outcomes during the experimental portion of the study was not statistically meaningful.

Figure 11
Test outcome control chart — McHenry County
(100% feedback throughout)



Sangamon County, like McHenry County, was a control site, and provided drug test feedback to probationers throughout the study. (The county did not provide drug test data during the last seven weeks of the study.) The overall positive outcome rate was 31 percent. The mean positive outcome rate was 31 percent for the first 11 weeks and 33 percent thereafter (Figure 12).

Figure 12
Test outcome control chart — Sangamon County
(100% feedback throughout)



Summary and conclusions

This study focused on drug test feedback and the role feedback plays in deterring drug use in drug-dependent probation populations. In general, the research suggests that it is not necessary to provide probationers with test results each time a specimen is collected. The clear implication is that it is not necessary to test all collected specimens. That finding is consistent with the results of other studies and has important implications for designing and operating cost-effective, efficient drug testing programs.

While it may not be necessary to test all collected specimens, drug test outcomes in the two "no feedback" counties suggest that *some* feedback is essential. It seems likely that acceptance sampling, or similar sampling strategies, could be used to implement equally effective and far more efficient drug testing programs in a high percentage of community supervision settings.

Implications for drug testing programs

Drug testing has three major components: the cup, the test and the lecture. It has long been assumed that "the test" is the most important of the three because it is the component that allows supervising officers to objectively detect drug use. "The lecture" (feedback) has long been considered the second most important because it provides supervising officers with the opportunity to intervene with a combination of warnings and appeals. "The cup" has generally been considered a perfunctory exercise, one lacking even symbolic importance.

This study, and the Authority's 1992 study in St. Clair County, cast doubt on the notion that testing and feedback play overarching roles in drug use deterrence. If anything, it increasingly appears that "the cup" may be an equally important component of a successful drug use deterrence strategy. There is no evidence that frequent testing and feedback produce drug-free probationers; and, there is no evidence that frequent testing and feedback control drug use. In contrast, routine specimen collection appears to be important and necessary, even if a large percentage of collected specimens are randomly discarded five minutes after probationers leave the office.

This study offers no guidance in the development of "optimum" specimen collection schedules. Departments participating in this study typically collected specimens on a graduated basis: weekly for three months, biweekly for three months, and monthly thereafter if the probationer appeared to be functioning satisfactorily. That appears to be an effective approach to specimen collection.

Community supervision program administrators employing similar specimen collection schedules may find it possible to lower testing costs by 50 percent or more by:

- collecting specimens as usual;
- informing probationers that some specimens will not be tested;
- using an "acceptance sampling" or similar sampling strategy to *randomly* test a small portion of collected specimens;
- immediately discarding remaining specimens;
- providing timely feedback to each probationer actually tested; and,
- informing probationers in a timely manner when they are not tested.

The last point seems particularly important because probationers generally know when specimens will test positive. They may conclude that testing has failed to detect drug use if feedback is withheld altogether. "No feedback" strategies are not recommended in any form. ■

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