

# CONVICTED DRUNK DRIVERS IN ELECTRONIC MONITORING HOME DETENTION AND DAY REPORTING CENTER: A COMPARISON

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## ABSTRACT

*In Vigo County, Indiana (USA), convicted drunk drivers are sentenced to Electronically Monitored Home Detention (EMHD) and day Reporting Program (DRC) programs. Previous researchers did not conduct a comparative study on these offenders placed in the two programs in the same jurisdiction. This study focuses on those convicted drunk drivers who were placed in the two programs in Vigo County, and completed their sentences from January 2002 through December 2003. Afterwards, the successful participants were followed through the end of June 2004 for recidivism reports. Discriminant analyses were used to determine whether there was any difference between the two groups of similar offenders in terms of "exit status" and "post-program recidivism" during the study period. The data analyses demonstrated that participation in DRC program was more effective than EMHD in terms of exit status and post-program recidivism.*

**Key words:** *Drunk drivers, electronic monitoring, home detention, day reporting centre*

## 1. INTRODUCTION

Overcrowding in detention facilities, court-orders to reduce or restrain overcrowding in jails and prisons, and tight government budgets have all compelled criminal justice scholars as well as practitioners to have a renewed interest in community-based correctional programs. Among the new innovations are several pragmatic intermediate sanctions which fall in the spectrum between regular probation and imprisonment. Two of these sanctions - electronic monitoring home detention (EMHD) programs and day reporting centers (DRC) have increasingly been implemented across the United States since the 1980s.

The first EMHD program for adult offenders was started in Palm Beach County, Florida in 1984 by the Palm Beach County Sheriff's Department in-house arrest work release program (Brown and Roy, 1995).

In 1986, the Crime and Justice Foundation in Boston worked with Hampden County Sheriff's Department in Springfield, Massachusetts, to establish the first DRC in the United States (Curtin, 1996). Both these programs are utilized by our criminal justice system at pre-trial (as a diversion) and also post-trial (as a sentence) stages. Additionally, both these programs are non-residential; hence, the common factor is that the participants are allowed to stay at their own homes and continue their employment and/or education (Lurigio, Olson, and Sifferd, 1999).

Empirical studies on the EMHD programs in the United States have been reported since the late 1980s, while such studies focusing on DRCs in our country have been reported since 1990. Both these programs across the United States include varied types of offenders as participants, e.g. offenders charged with and also convicted for drunk

driving, property offenses, as well as personal offenses (Martin, Lurigio, and Olson, 2003; Finn and Muirhead-Steves, 2002). Despite the fact that these two programs are increasingly being used for varied types of offenders, previous researchers have paid scant attention to convicted drunk drivers sentenced to these programs. Even when they focused on convicted drunk drivers, they examined those offenders placed in either one of the two programs. In other words, previous researchers did not conduct a comparative study between convicted drunk drivers placed in EMHD and DRC programs. In Vigo County, Indiana, convicted drunk drivers are sentenced to EMHD as well as DRC programs. This study focuses on those convicted drunk drivers who were sentenced to these two programs and also completed their sentences in Vigo County from January, 2002 through December, 2003. Afterwards, the successful participants were followed through the end of June, 2004 for recidivism reports. The objective of this study was to determine whether there was any difference between those two groups (EMHD and DRC) of similar offenders in terms of "exit status" and "post-program recidivism" among those offenders during the study period.

## 2. PREVIOUS RESEARCH

As mentioned in the previous section, in this study the focus is on convicted drunk drivers sentenced to EMHD and DRC programs administered by the Vigo County Community Corrections, Indiana during the study-period. Hence, a discussion on previous research findings on these two community-based programs are presented in the following two sub-sections.

### EMHD

According to Finn and Muirhead-Steves (2002), EMHD is being utilized as (a) pre-trial supervision of criminal defendants, (b) an alternative to revocation of individuals who are supervised on probation or parole, and (c) an additional component of probation and parole supervision. A review of previous research points out that the majority of these programs involve non-violent offenders and those with non-violent offense histories (Roy, 1999, 1997; Zhang, Polakow, and Nidorf, 1995; Brown and Roy, 1995; Baumer, Maxfield, and Mendelsohn, 1993; Coopridier, 1992; Lilly, Ball, Curry, and Smith, 1992; Vaughn, 1991, 1987; Clarkson and Weakland, 1991; Kuplinski, 1990; Charles, 1989; Ball, Huff, and Lilly, 1988; Blomberg, Waldo, and Burcroff,

1987; Lilly, Ball, and Wright, 1987). Additionally, some programs supervise only those offenders who are sentenced to jail for a given number of days (Roy, 1999; Lilly, Ball, and Wright, 1987). In contrast, some programs exclude offenders who have pending charges or have a history of absconding (Kuplinski, 1990). Also, some programs exclude offenders who have multiple felony convictions, require in-patient drug/alcohol treatment, or are serving intermittent sentences (Brown and Roy, 1995).

Overall, previous researchers have focused on varied aspects of these programs, such as the monitoring devices, cost analysis, percentages of offenders successfully exiting these programs, factors predictive of offenders' successful exit, and also post-program recidivism. Despite the differences in selection criteria, previous research reports indicate that 57% to 97% of offenders had successfully exited their programs (Roy, 1999). As for "exit status", several previous researchers had focused on this issue. For instance, results from a national survey conducted by Renzema and Skelton (1990) reveal that an offender's age and sentence length are predictive of the "exit status". Although the finding on an offender's age has been confirmed in the literature (Roy, 1999, 1997; Brown and Roy, 1995, Roy, 1994; Lilly, Ball, Curry, and McMullen, 1993), the finding on an offender's sentence length from the national survey has not been supported by a number of previous studies (Roy, 1999, 1997; Brown and Roy, 1995). Several other factors have also been found to be significantly related to "exit status" such as charge reduction, employment status (Roy, 1999; Lilly, Ball, Curry, and McMullen, 1993); gender, prior convictions (Roy, 1999; Lilly, Ball, Curry, and McMullen, 1993); income (Lilly, Ball, Curry, and McMullen, 1993); number of prior offenses, substance abuse history, and prior institutional detention (Roy, 1997, 1994; Brown and Roy, 1995)

A cursory review of previous research indicate that participants in EMHD programs include various types of convicted offenders like drunk drivers, property offenders, and offenders convicted for personal offenses. To date, only a handful of researchers have focused exclusively on convicted drunk drivers. The most recent one conducted by Courtright, Berg, and Mutchnick (2000) examined the variables that were significantly related to successful exit from EMHD in Western County, Pennsylvania. Although the authors did not clearly report the percentage of participants who successfully exited the program during their one-year study period, they maintained that employment, marital

status, and prior offenses were significantly related to successful exit. Courtright, Berg, and Mutchnick conducted an earlier study in 1997 on convicted drunk drivers in the same jurisdiction; however, this earlier study focused exclusively on cost analysis. Lilly, Ball, Curry, and McMullen (1993) conducted a seven-year study on convicted drunk drivers sentenced to the EMHD program administered in Palm Beach County, Florida. The authors reported that 97% of the participants had successfully exited from the program during those seven years. As for statistically significant factors related to successful exit, they reported gender, age, employment, and income. In another study, Tuthill (1986) examined post-program recidivism among sixty convicted drunk drivers who successfully exited the EMHD program in Lynn County, Oregon, during a one-year study period in 1985; only three participants recidivated. Other than reporting those numbers, no statistical analysis was conducted by the author.

## DRC

In general, DRCs vary from one jurisdiction to another in terms of program emphasis. On one side, several programs accent the availability of treatment services for offenders who would otherwise not have those services available to them (Lurigio et al., 1999; McBride and VanderWaal, 1997; Lucas and Bogle, 1997a, 1997b; Parent et al., 1995; Diggs and Piper, 1994). On the other side, many programs emphasize other issues. Programs such as the southeastern North Carolina DRC emphasize surveillance, not treatment (Marciniak, 1999). However, one common goal of all DRCs in the United States is cost savings. For example, the programs in Hampden County, Massachusetts, Harris County, Texas, Maricopa County, Arizona, and Orange County, Florida, identify cost savings as their primary goal (Parent et al, 1995; Diggs and Piper, 1994). In addition, restraining or reducing jail/prison overcrowding is a mandate of the aforementioned DRCs in Massachusetts, Texas, and Arizona (Parent et al, 1995). Also, some programs such as the Cook County, Illinois, DRC emphasize improving the percentage of court appearances among pre-trial clients (Lurigio et al, 1999).

Additionally, the DRCs vary widely in their target populations. Yet, the majority of DRC clients across the United States are substance abusers or have a history of substance abuse (Parent et al, 1995). Also, some DRCs target probation violators, both felons and misdemeanants (Marciniak, 1999). In addition, some DRCs in Virginia accept

referrals from judges and parole boards as well as probation and parole officers (Lucas and Bogle, 1997a, 1997b). Furthermore, while some DRCs target non-violent offenders, graduates of varied residential programs, and pre-trial defendants (Roy and Grimes, 2002; Lurigio et al, 1999; Parent et al, 1995), other DRCs like the Salt Lake City, Utah DRC target only probationers and parolees (Bureau of Justice Assistance, 2000).

According to previous research findings, the percentages of successful exit from DRCs by adult offenders ranged from 13.5% to 84%. The lowest percentage (13.5%) of successful completion has been reported by Marciniak (1999) in her study on a southeastern North Carolina DRC; the highest percentage (84%) was reported by Diggs and Piper (1994) in Orange County, Florida. As for failure or unsuccessful exit of offenders from the DRCs, only a few researchers have examined the factors. Humphrey (1992) reported these four factors - continued drug use, absconding, non-compliance with program rules, and loss of job as well as loss of residence. Among all the published reports available to date, only Marciniak (1999) used statistical analysis to ascertain the factors that were statistically significantly related to offenders' "exit status"; they were - employment, education, and living situation.

As for post-program recidivism among offenders who have successfully exited DRC programs, little attention has been paid to investigating this issue. To date, only six published reports have been available to this end. In all these studies, the authors measured recidivism in terms of rearrests on new charges. However, clear information about the percentages of post-program recidivism is available from four studies: (a) 44% in the Salt Lake City, Utah DRC (Bureau of Justice Assistance, 2000); (b) 22% in the Fairfax County, Virginia DRC (Orchowsky et al., 1997); (c) 20% in the Metropolitan DRC, Boston (McDevitt et al., 1997); and (d) 14.9% in the Maricopa County, Arizona DRC (Jones and Lacey, 1999).

However, regarding convicted drunk drivers sentenced to DRC programs, only one published study is available to date. Jones and Lacey (1999) investigated convicted drunk drivers placed in the Maricopa County, Arizona DRC. More specifically, the authors focused on repeat drunk drivers. They reported that almost 15% of those who had successfully exited the DRC had recidivated during their study-period. No further analysis was conducted by the authors. However, one significant fact was - all the offenders in this DRC were released from

jail early to be placed in that program. The length of time they spent in that program was equal to their remaining jail time.

Overall, it is apparent from this review of previous research findings on EMHD and DRC programs that so far very few researchers have concentrated exclusively on convicted drunk drivers placed on these two community-based programs. As mentioned earlier, in Vigo County, Indiana, convicted drunk drivers are sentenced to EMHD as well as DRC programs. Previous researchers have investigated convicted drunk drivers sentenced to either EMHD or DRC programs in other jurisdictions across the United States. In other words, previous researchers have not conducted any comparative study between these offenders sentenced to EMHD and DRC programs in the same jurisdiction. As these offenders are placed in both programs administered by the Vigo County Community Corrections, Indiana, the purpose of this study was to conduct a comparative study on these offenders. Specifically, this study examined the following two null hypotheses: (1) there was no significant difference in successful exit between the two groups of subjects, and (2) there was no significant difference in post-program recidivism between the two groups of subjects.

### 3. METHOD

#### Data sources and subjects

The data were coded from individual offender case files maintained by the Vigo County Community Corrections, Indiana. In this study, the subjects included those convicted drunk drivers who were sentenced by the Vigo County Superior Court to these two programs and also completed their sentences from the beginning of January 2002 through the end of December 2003. All the successful participants were followed through the end of June 2004 for recidivism reports, i.e. the follow-up period was six months at a minimum. "Recidivism" has been measured as rearrests for committing new offenses after the participants successfully exited these two programs during the study period. Initially, all the convicted drunk drivers who were sentenced to DRC (67 individuals) and EMHD (130 individuals) programs and successfully/unsuccesfully exited the programs were included in this study. However, consistent data were not available for all the subjects (67 in DRC and 130 in EMHD). Hence, 16 subjects from the DRC and 12 subjects from the EMHD were dropped. This study included 51 subjects in the DRC and 118 subjects in the

EMHD. Detailed information about the subjects' prior offense history, prior sanctions, and post-program recidivism was collected from the criminal history information system maintained by the Vigo County Superior Court.

The following independent variables have been used in this study: age, race, sex, marital status, offense (drunk driving) class, charge reduction, sentence type, sentence length (i.e. the number of days spent by the subjects in each program), prior drunk driving offense, prior jail commitment, prior imprisonment, prior community corrections placement, prior drug/alcohol offenses, and prior drug/alcohol counseling. All these variables were coded dichotomously, except age and sentence length. The mean age of subjects were 38.6 years in DRC (range 19 to 64 years), and 35.1 years in EMHD (range 21 to 65 years). Almost 90% of the subjects in both groups were white. Also, the majority of the subjects were male (80.4% in DRC, and 87.3% in EMHD). The majority of the subjects were not married (66.7% in DRC, and 78% in EMHD). As for offense class, 76.5% of the subjects in DRC and almost 56% in EMHD were misdemeanants. The original charges were reduced by the Court for two subjects (4%) in DRC and thirty-five subjects (29%) in EMHD.

In Vigo County, these convicted drunk drivers were placed in the EMHD in three ways - as a part of their probation sentence, as direct commitment (in lieu of jail sentence), and sentence modification (jail sentence modified after spending specific amount of time in jail). In the DRC, offenders were placed as a condition of probation and sentence modification. In both programs, the majority of the subjects were placed as a condition of probation (98% in DRC and 78.8% in EMHD). Twenty-four subjects were placed in EMHD as direct commitment. Also, each group consisted of one individual placed as sentence modification. As for prior drunk driving offense, the two groups of subjects varied. Seventy eight percent of the EMHD group had such history, compared to 39% of the DRC group. The majority of the subjects had no prior jail commitment (94.1% in DRC and 85.6% in EMHD) as well as no prior imprisonment (88.2% in DRC and 98.3% in EMHD). Fifty three percent of the subjects in DRC group and 80% of their cohorts in EMHD group had history of prior community corrections placements. Regarding prior drug/alcohol offenses, 98% of the DRC subjects and 85% of the EMHD subjects had such records. Also, 41% of the DRC subjects and 79% of the EMHD subjects had documented prior drug/alcohol counseling.



The outcome measures used in this study were "exit status" and "post-program recidivism". Both the components were dichotomized as follows: (a) exit status: successful (coded 0) and failure (coded 1); and (b) post-program recidivism: no recidivism (coded 0) and recidivism (coded 1).

### Recoding of Independent Variables

Two continuous independent variables, age and sentence length, were recoded into categories prior to computing discriminant analyses. Age was categorized into two groups - group I (up to 35 years) and group II (more than 35 years). Likewise, sentence length was categorized into group I (up to 180 days) and group II (more than 180 days).

### Empirical Specifications

Given the dichotomous coding of the two components of the outcome measure, discriminant analyses have been used to determine whether the two groups of subjects statistically significantly differed in terms of exit status and post-program recidivism. Discriminant analysis is used to measure between-group differences. The F value for any significant difference between the two groups of subjects is obtained from the significance test for the Mahalanobis' distance between groups (Norusis, 1990).

Correlation coefficients were calculated to test for multicollinearity among the independent variables.

**Table 1:** *F Values of Significant Independent Variables for Successful Exit*

Variables	Wilk's Lambda	F	Significance
Age-group	.964	4.298	.030
Charge Reduction	.895	13.425	.000
Sentence Length	.670	56.266	.000
Prior OWI Offense	.952	5.741	.018
Prior Drug/Alcohol Offense	.861	18.446	.000
Prior Community Correction Placement	.868	3.763	.050
Difference between Groups	.449	8.912	.000

percent correctly classified: 92.6%

bles. The coefficients were uniformly small. Hence, all the independent variables were retained for inclusion in the discriminant analyses.

### 4. FINDINGS

As for the first component of outcome measures, exit status, the percentage of successful exit was higher in EMHD group (76%) than DRC group (51%). Put another way, 24% (n=28) of the EMHD subjects and 49% (n=25) of the DRC subjects failed to complete their sentences. All these subjects failed due to commission of new offenses during program supervision (violation of probation) and violations of program conditions.

**Table 2:** *F Values of Significant Independent Variables for Post-program Recidivism*

Variables	Wilk's Lambda	F	Significance
Offence Class	.908	6.095	.016
Sentence Type	.869	9.012	.005
Prior Drug/Alcohol Offense	.722	23.108	.000
Prior Institutional Detention	.892	7.295	.009
Prior Drug/Alcohol Counseling	.874	8.655	.005
Difference between Groups	.396	9.485	.000

percent correctly classified: 96.2%

Regarding post-program recidivism, almost 41% (n=48) of the EMHD subjects and about 30% (n=15) of their DRC cohorts were recidivists. Further investigation on this issue revealed that 36 out of 48 subjects in EMHD group committed post-program drunk driving offenses; in DRC group, 7 of those 15 individuals committed such offenses.

The first hypothesis examined in the analysis was that there was no significant difference in successful exit between the EMHD and DRC subjects. A discriminant analysis was computed to calculate the effects of the collection of independent variables on successful exit. All the independent variables were utilized as discriminating variables during the analysis phase to identify any statistically significant difference between the two groups of subjects. Only the following independent variables (see TABLE 1) had statistically significant effects on successful exit: age-group ( $p < .05$ ), charge reduction ( $p < .0005$ ), sentence length ( $p < .0005$ ), prior drunk driving offense

( $p < .05$ ), prior drug/alcohol offense ( $p < .0005$ ), and prior community corrections placement ( $p = .05$ ). The computed F value ( $F = 8.912$ ) indicated that the effects of the significant independent variables in differentiating between the EMHD and DRC subjects in successfully exiting their programs. Additionally, the computed significance of the F value turned out to be significant at  $p < .0005$  in the discriminant analysis. This finding demonstrated that the effects of the six independent variables did identify statistically significant difference between EMHD and DRC subjects. In other words, the findings from this analysis rejected the first null hypothesis that there was no significant difference between EMHD and DRC subjects in successfully exiting their programs.

To test the second hypothesis — there was no significant differences in post-program recidivism between the two groups of subjects — another discriminant analysis was computed. Like the previous discriminant analysis, all the independent variables were utilized as discriminating variables during the analysis phase to identify any statistically significant difference between EMHD and DRC groups. This analysis revealed that the following independent variables (see TABLE 2) had statistically significant effect on post-program recidivism: offense class ( $p < .05$ ), sentence type ( $p < .005$ ), prior drug/alcohol offense ( $p < .0005$ ), prior imprisonment ( $p < .0005$ ), and prior drug/alcohol counseling ( $p = .005$ ). Comparing the significant independent variables from both the discriminant analyses, it is noteworthy that several variables had statistically significant effects in both the analyses to identify significant differences between EMHD and DRC subjects — prior drunk driving offense, prior drug/alcohol offense, prior drug/alcohol counseling, and prior placement in community corrections.

In this second discriminant analysis the F value was obtained from the significance test for the Mahalanobis' distance between EMHD and DRC subjects. The computed F value ( $F = 9.485$ ) indicated the effects of the five significant independent variables (mentioned earlier) in differentiating between the two groups of subjects in terms of post-program recidivism; additionally, the F value was significant at  $p < .0005$ . In sum, the findings from this discriminant analysis rejected the second null hypothesis.

### Exit Status

The first discriminant analysis demonstrated that the following six independent variables had statisti-

cally significant effect in distinguishing between the two groups of subjects - age-groups, charge reduction, sentence length, prior drunk driving offense, prior drug/alcohol offense, and prior placement in community corrections. As for age-groups, 53% of the DRC subjects (who were up to 35 years old) and 16% of their EMHD cohorts unsuccessfully exited their programs. In the DRC group, all subjects whose charges were reduced failed, compared to only 11% of the EMHD subjects. The findings on sentence length were also interesting; among the subjects who were placed in the programs for more than 180 days, 48% in the DRC group and 15% in the EMHD group failed. The percentages of failure increased considerably when the sentence length was more than 180 days; 67% in the DRC group and 77% in the EMHD group failed. Among the subjects who had prior drunk driving offenses, the percentages of failure were 40% in the DRC group and 30% in the EMHD group. As for prior drug/alcohol offense, 30% of the EMHD subjects exited their program unsuccessfully. In contrast, all the subjects who had such history in the DRC group were successful. However, in the DRC group 52% of the subjects who had no such prior history failed to complete their program. Additionally, among all the subjects who had prior placements in community corrections, 46% of the DRC subjects and 30% of the EMHD subjects had unsuccessful exit.

### Post-program Recidivism

As mentioned earlier, all those subjects who successfully exited their programs were followed through the end of June 2004 for post-program recidivism reports. The second discriminant analysis revealed that five independent variables had statistically significant effect in differentiating between DRC and EMHD subjects. Regarding offense class, the findings for felony offenders were remarkable; 47% of the felons in the EMHD group recidivated compared to 17% of their cohorts in the DRC group. As for sentence type, in the EMHD group, 58% of direct commitment subjects and 23% of probationers recidivated, while in the DRC group, 14% of the probationers recidivated. Regarding the subjects who had prior drug/alcohol offense history, 80% in the EMHD group recidivated; in contrast, no one in the DRC group with such history recidivated. Few subjects in both groups (2 in EMHD and 5 in DRC) had history of prior imprisonment. Both the subjects (100%) in the EMHD group recidivated compared to only one subject (20%) in the DRC group. Among the subjects who had records of

prior drug/alcohol counseling, the percentages of recidivism were 36% in the EMHD group compared to 10% in the DRC group. .

## 5. CONCLUSION

Most previous researchers have traditionally investigated the effectiveness of EMHD and DRC programs by examining the entire pool of participants, which included varied types of offenders. Thus far, only four studies on EMHD and one study on DRC focusing on convicted drunk drivers have been conducted. When previous researchers focused on convicted drunk drivers, they examined those offenders placed in either one of these two programs. That is, previous researchers did not conduct a comparative study involving convicted drunk drivers sentenced to EMHD and DRC programs in the same jurisdiction. Given that context, the present study expands the literature by comparing drunk driving offenders placed in EMHD and DRC programs in the same jurisdiction, in terms of their exit status and post-program recidivism.

As mentioned earlier, the significant findings from the first discriminant analysis is presented in Table 1. According to this Table, the following independent variables made significant difference between the two groups of subjects in terms of exit status: age-group, charge reduction, sentence length, prior drunk driving offense, prior alcohol/drug offense, and prior community corrections placement. The findings indicated that older offenders (those over 35) were more successful in exiting the programs than their younger counterparts (those up to 35 years old). This finding supports the previous research (from these two programs) which reveals that these two programs have been more successful in placing older (those over 35) rather than younger offenders (Roy and Barton, 2006; Roy and Grimes, 2002; Roy, 1997; Brown and Roy, 1995; Baumer et al. 1993).

Another independent variable, charge reduction, significantly made the difference between the two groups of subjects. This study revealed that in the DRC group, all subjects whose original charges were reduced failed, compared to 11% of their cohorts in the EMHD group. The fact was - reduction of original charges had an impact on the two groups of subjects in successfully exiting their programs. In fact, the issue of charge reduction supports previous research findings on DRC and EMHD programs (Roy and Grimes, 2002; Roy, 1999; Brown and Roy, 1995).

One intriguing factor was the relationship between sentence length and successful exit from the programs. One previous research conducted by Renzema and Skelton (1990) concluded that sentence length of more than 180 days improved the likelihood of successful completion. In contrast, our study revealed that offenders placed in the two programs for more than 180 days, failed to complete their sentences (48% in the DRC group and 15% in the EMHD group). Our finding was supported by other previous studies (Roy and Barton, 2006; Roy and Grimes, 2002; Roy, 1999; Roy, 1997; Brown and Roy, 1995). One way to further assess the relationship between sentence length and successful exit would be to examine the participants over a longer period of time so that more offenders with lengthier sentences could be included in future studies.

Prior drunk driving offenses and prior drug/alcohol offense as independent variables also made significant differences between the two groups of subjects in terms of exit status. This study indicated that among the participants who had prior drunk driving offense records, 40% in the DRC group failed to complete their sentence compared to 30% of their cohorts in the EMHD group. Regarding prior drug/alcohol offense history, 30% of the subjects with such records in the EMHD group failed to complete their sentences; however, all the subjects with such history in the DRC group successfully exited their program. It is conceivable that supervision of DRC participants made the difference between the two groups of participants. The finding from our study is worthy of further exploration.

Also, previous research findings indicated that offenders with a history of prior community corrections placement were more likely to unsuccessfully (fail) exit their programs compared to their cohorts who had no such history (Roy and Barton, 2006; Brown and Roy, 1995; Roy, 1994). The finding from this study indicated that among all the subjects who had prior community corrections placements, 46% in the DRC group and 30% in the EMHD group failed to complete their sentences. This finding suggests that the court needs to be more circumspect in placing offenders (who had prior community corrections placements) into these two community correctional programs. Also, this issue needs to be investigated in future studies involving convicted drunk drivers placed in DRC and EMHD programs.

Table 2 reports the significant independent variables (offense class, sentence type, prior drug/alcohol offense, prior institutional detention, and

prior drug/alcohol counseling) that differentiated between the two groups of participants in terms of post-program offense. As mentioned earlier, almost 41% (n=48) of the EMHD subjects and about 30% (n=15) of the DRC subjects committed post-program offenses. Offense class (felony/misdemeanor) was a significant variable in differentiating between the two groups of subjects in post-program recidivism. In both groups, misdemeanants did not recidivate. However, our analysis revealed an interesting finding for felons. During the post-program follow-up period, 47% of the felons in the EMHD group recidivated compared to 17% of their cohorts in the DRC group. Evidently, the DRC program had more impact on felons than the EMHD program. This finding is worthy of further exploration.

As for sentence type, the EMHD group had a higher number of offenders placed as direct commitment than the DRC group. In the EMHD group, 58% of direct commitment subjects recidivated compared to none in the DRC group. Based on this finding, it may be conceived that placement of direct commitment (in lieu of jail sentence to save taxpayers' money) offenders in the EMHD program had little effective in reducing their recidivism. It may also be postulated that their placement in the EMHD program reduced the seriousness of their punishment psychologically. After successfully exiting the program, they committed new offenses.

As for prior drug/alcohol history, 80% of the subjects with such records in the EMHD group recidivated compared to none of their cohorts in the DRC group. It is apparent from this finding that for those subjects, placement in the EMHD program had very little effect in reducing their recidivism. In contrast, placement of similar offenders in the DRC was more effective in reducing their recidivism. It can be assumed that the quality or type of supervision provided to the subjects in these two programs made that difference. As this finding was noteworthy, it calls for further studies on this issue in other programs.

Regarding subjects with records of prior institutional detention, two subjects in the EMHD group and five subjects in the DRC group had such history. Both the subjects in the EMHD group recidivated compared to only one of their cohorts in the DRC group. Apparently, placement of those two offenders in the EMHD program had no impact in reducing their recidivism. Hence, it is conceivable that for those two offenders' placement in the community-based correctional program (EMHD) reduced the degree of severity of their sanctions. Despite their successful exit from the program, those subjects recidivated. This finding about the convicted drunk drivers with history of prior insti-

tutional detention deserves serious attention of the court.

As for prior drug/alcohol counseling, 79% of the EMHD subjects and 41% of the DRC subjects had such history. In terms of post-program recidivism, 36% of the EMHD subjects with such records recidivated, compared to 10% of their cohorts in the DRC group. Given this finding, we can make a conjecture that the quality or type of supervision provided to the subjects in these two groups made the difference. This finding points to the need for further studies on this issue.

Overall, the results from this study suggest that placing convicted drunk drivers in a DRC program may be more viable and effective alternative (than EMHD) to imprisonment. Further longitudinal study is needed to investigate the extent and specific impact of these alternative placements for convicted drunk drivers. There is a need to address the convicted drunk drivers in ways other than strict confinement.

## 6. LIMITATIONS

Although this study expands on the literature on convicted drunk drivers placed in EMHD and DRC programs, there were some noteworthy limitations. The size of the population in the two groups was the first one. This study included 118 subjects in the EMHD group and only 51 in the DRC group. Due to the low number of subjects in both groups, predictive analysis was not possible to compute to further explore the nature of any of the relationships. As stated earlier, future study needs to be conducted over a longer period of time to allow for a larger population size. Additionally, by analyzing these data for a longer period of time, more meaningful analysis on recidivism could be conducted.

Another limitation of this study was specifically the recidivism data. In the state of Indiana, each county is accountable for maintaining its criminal history database. At this time, there is no centralized mechanism to allow the databases to communicate with one another. Hence, in reviewing the criminal history records, the researchers must assume that the subjects included in this study never moved, nor they were apprehended for drunk driving or any other offense in another county or state. Due to the lack of communication between the county database systems, it is not possible to figure out to what extent this may be true. Future studies should attempt to further explore this issue.

Data collection and record keeping were other limitations. For more than a decade, most criminal justice agencies have been striving to include technological advances within their agencies as well as across jurisdictions nationwide. However, technological advancement brings about some potential



for both human and technological errors. A review of the data used in this study revealed some of these concerns with a paperless approach. We started this study with 130 subjects in the EMHD group and 67 subjects in the DRC group. A review of the database revealed that incomplete information existed on 12 subjects in the EMHD group and 16 subjects

in the DRC group. Therefore, these subjects were excluded from the analysis. In most cases, incomplete information was a result of either not being logged into the computer or through human error on the data collection mechanism. Consequently, there was no way to determine how those excluded subjects might have impacted the final analysis.

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