

Dubuque County Jail Diversion Research Project
Executive Summary
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The Dubuque County Jail Diversion (DCJD) program was established to address the needs of those persons coming into contact with the criminal justice system due to criminal behaviors associated with substance abuse and mental health problems (co-occurring disorders). Members of the Loras College Criminal Justice program agreed to conduct evaluation research concerning the ability of the DCJD program to divert individuals from criminal activity, reduce costs associated with fewer days spent in jail by these individuals, access appropriate community services for DCJD participants, and shift expenditures for needed services to non-County agencies.

A list of all current DCJD participants was created by the Department of Corrections. The list included a total of 216 individuals from 2005 to the end of data collection on August 31, 2012. Researchers were able to locate 56 persons diverted by the program and 39 consented to participate in the study. Of the remaining 17, 2 were deceased and 15 chose not to participate. Thus, 72% of the 54 possible participants were studied to provide data for this report.

The basic methodology of the study was that of a simple pre-test, post-test design with entry into the DCJD program as the presumed causal variable impacting days spent in jail, access to appropriate community service, and reducing County expenditures for needed assistance. Participant information was gathered from the Dubuque County Jail, two local hospitals, a substance abuse center, and the local mental health agency. Lastly, arrest data was examined to determine the amount of criminal behavior by participants prior and subsequent to diversion.

The following represent the most significant findings of the research:

- The average age of participants was 34; 92.3% were white; 66.7% were male.
- The number of days spent in jail declined 85% from 588 to 86 – a statistically significant drop though the pre- and post-comparison time periods are not truly comparable.
- Increases in the number of days community agencies provided services ranged from 25% to more than double during post-diversion compared to pre-diversion.
- Cost savings associated with reduced number of days in jail during the post-diversion period was \$40,712.20 for the 39 participants in the study (18% of the 216 DCJD enrollees). It is estimated that for the entire 219 DCJD population the County Jail saved \$228,614.66 as a result of fewer days in jail. This figure, when compared to the cost of the DCJD director for the last 2 years (\$173,326.98), created a total net savings \$55,287.68 for Dubuque County in terms of reduced days in jail for DCJD participants.
- Costs for services increased 33.7% from pre- to post-diversion but almost half of the total post-diversion expenditure was the result of 2 individuals with substantial post-diversion but no pre-diversion medical costs.
- Using a model developed by the state of Washington that attached dollar costs to types of crimes, it is estimated that the DCJD program has saved Dubuque County \$1,799,744.00. This figure is based upon the low “per crime cost” of a drug offense multiplied by the number of offenses recorded pre- and post-diversion for program participants since actual crimes by enrollees were not researched.
- A time study performed by the DCJD program coordinator indicated that a small amount of his time each week is spent assisting probation personnel with gaining access to community resources for their clients. While this assistance is not a component of his job description, it should be noted that his expertise benefits local Department of Corrections probation officers and those on their caseloads.

INTRODUCTION

The Dubuque County Jail Diversion program (DCJDP) was established to address the needs of those persons coming into contact with the jail due to criminal behaviors related to substance abuse and mental health problems (co-occurring disorders). The goals of DCJDP include connecting such persons with services to assist them in applying for and receiving appropriate state and federal assistance and reducing their contact with law enforcement and time in jail. In the course of doing so it is anticipated that DCJDP would result in lowered costs to the county. The purpose of this study is to determine if the DCJDP is meeting these goals.

The hypothesis is that the DCJDP will result in lowered costs to Dubuque County. More specifically, there will be lowered costs to the Dubuque County Jail, local medical facilities, and local psychiatric facilities. The purpose of the study is to determine whether or not the DJDP is connecting persons with community resources, lowering costs to Dubuque County for inmate services, reducing contact with law enforcement, and decreasing time spent in jail. Study results will be useful in determining if funding should continue for the DCJDP.

METHODS

The Dubuque County Jail Diversion Program (DCJDP) seeks to divert persons with mental health issues from the jail to appropriate services. This program has been in existence since 2002. At the beginning of its existence, the DCJDP was funded with grant monies. However, after three years the grant money was depleted and the county felt that the DCJDP was worthwhile and needed to continue. Thus, the county provided funds for a salary for one individual to manage the program.

Given the current difficult economic situation the cost of continuing the program has been questioned. The advisory board for the Iowa Department of Corrections concluded that a cost-benefit analysis would be helpful in determining if the DCJDP should continue to be funded.

Participants

The Iowa Department of Corrections provided the researchers with a list of all participants in the DCJDP since funding by the County began. The list included a total of 216 participants from 2005 to the end of data collection on August 31, 2012. The researchers were able to locate 56 participants and, of those 56 participants, 39 consented to participate. Two of the 56 participants were deceased and 15 chose not to participate. Although the resulting 72.2% participation rate is not as high as initially hoped for it is not unreasonable as these clients are known to be difficult to contact. Additionally, although the sample is small, it does represent almost 20% of the population from which it was drawn.

Measures

The independent variable in this research was entry into the DCJDP. The analyses consisted of a simple pre-test, post-test design with entry into the DCJDP as the independent variable. As noted earlier, this study sought to determine the possible financial benefits of the program. The research examined whether or not the DCJDP was resulting in decreased costs to the County.

Dependent variable measures included usage of local facilities as well as criminal behavior before and after entering the DCJDP. Usage of local facilities was operationalized as days of service and dollar amount billed for services. The facilities identified for the outcome

measures included the county jail, two local hospitals, a substance abuse treatment center and the local mental health agency. Finally, arrest records were examined to determine the amount of criminal behavior before and after participation in the DCJDP.

Study Results

Participant Demographics

The average age of the participants in the study was 34. The majority of the sample was white (92.3%) and male (66.7%). Given the low numbers of minorities and females, the data was analyzed only for the sample as a whole. The high percentage of whites in the sample is not surprising as whites represent 90.2% of the population of Dubuque (Anonymous, 2012). However, the percentage of women in the sample (33.3%) indicates that women are overrepresented in the diversion sample since, nationwide, women represent 12.3% of the jail population in the United States in 2010 (the most recent year for which data are available) (Minton, 2011). It is not however, an overrepresentation of women in jail with mental health problems as, nationwide, female jail inmates have much higher rates of mental illness than males (James & Glaze, 2006).

Days in Jail

Table 1 provides evidence that the Dubuque County Jail Diversion Program (DCJDP) decreased the number of days spent in jail by the 39 participants in the study. The number of days in jail declined by 85% from 588 days to 86 with a corresponding 85% decline in cost for housing the jail diversion participants. This difference represented a statistically significant change ($t = 2.82, p < .01$). However, the two time periods are not truly comparable since the pre-diversion time period covers two years and the post-diversion period ranges from three months to five years. Continuing to gather data over an extended period of time will eventually allow comparison of data for equal time periods of non-participation and participation in the DCJDP.

Days of Services Provided

The number of days services were provided increased at each of the community organizations that provide services to program participants, from 25% more days to more than double the number of days during post-diversion compared to pre-diversion. These differences were not statistically significant. In extrapolating these numbers to examine the costs and benefits of the DCJDP it is important to remember that these numbers represent only a sample of the total population of participants in the program.

Table 1 Days and Dollars Pre- and Post-Diversion

	Jail		Finley		Mercy		SASC		Hillcrest		Totals	
	Days	\$	Days	\$	Days	\$	Days	\$	Days	\$	Days	\$
Row One Pre-Diversion	588	47,686.80	68	91,853.44	90	131,849.60	1,986	7,324.00	5,732	36,192.04	8,464	314,905.88
Row Two Post-Diversion	86	6,974.60	85	148,341.46	148	221,631.10	4,092	19,333.00	7,221	29,819.93	11,632	426,100.09
Row Three Pre-Diversion^a	N/A	N/A	N/A	29,746.82	N/A	0.00	N/A	1,895.00	N/A	6,791.63	N/A	38,433.45
Row Four Post-Diversion^a	N/A	N/A	N/A	8,146.97	N/A	90,945.50	N/A	3,075.00	N/A	11,131.40	N/A	113,298.87
Row Five Pre-Diversion^b	N/A	N/A	N/A	62,106.62	N/A	131,849.60	N/A	5,429.00	N/A	29,400.41	N/A	228,785.63
Row Six Post-Diversion^b	N/A	N/A	N/A	140,194.49	N/A	130,685.60	N/A	16,258.00	N/A	18,688.53	N/A	305,826.62
Row Seven Pre-Diversion^c	N/A	N/A	N/A	0.00	N/A	0.00	N/A	0.00	N/A	244.24	N/A	244.24
Row Eight Post-Diversion^c	N/A	N/A	N/A	0.00	N/A	22,999.00	N/A	1,180.00	N/A	4,069.72	N/A	28,248.72

a = costs covered by SSI
b = County costs after deducting costs covered by SSI
c = costs pending coverage by SSI

Total Cost Analysis

The total population of jail inmates who have been diverted through the DCJDP is 219. Thus, this sample of 39 participants represents 17.8% of the population. Although we cannot determine with certainty that the rest of the population would experience the same reduction in costs to the jail, we can provide an estimate.

To determine the estimated savings we first identify the difference between total cost to the jail both before and after the sample members' entry into DCJDP. This amount is the difference between the pre-diversion and post-diversion dollars (\$40,712.20). Dividing total savings by number of participants provides an estimate of cost savings per participant (\$1,043.90). Multiplying individual savings by the total population (219) provides the estimated savings to the County Jail (\$228,614.66). Costs to the County for the same time period were approximately \$173,326.98. Thus, the savings for the County Jail is equal to the difference between the reductions in costs and the costs of running the DCJDP. This difference totals \$55,287.68 in savings to the county as a result of the work of the DCJDP coordinator.

Service Cost Analysis

We next sought to determine the impact of the DCJDP in providing services to participants. Use of services at all four facilities included in this research increased following participant entry into the diversion program. In analyzing the costs to the County it was first necessary to determine if any participants in the sample were receiving benefits which would transfer those costs to state or federal programs. Referring to Table 1, note that the first row is all costs reported by agencies providing services included in the research prior to entering DCJDP. Row 2 displays costs reported by those same agencies following entry into the diversion program. The next two rows report the costs for pre- and post-diversion that were covered by state or federal programs. The two rows below that report the difference between those two amounts, thus providing the actual costs to the County. The final row reports the dollars included in rows 1 and 2 and rows 5 and 6 that are currently pending approval by State or Federal programs (Thus, likely to be additional costs deducted from County expenditures in the future). All of the following data are taken from the cost savings reported in rows 5 and 6 of Table 1. For ease of reading, the costs used in the following report are shaded in Table 1.

Costs to the County for services provided prior to entry into DCJDP totaled \$228,785.63. Following entry into DCJDP costs for these same services totaled \$305,826.62. Thus, for this sample of participants, the costs for services increased by one third (33.7%) or a total of \$77,040.99. Examination of the costs by facility reveals that these increases were primarily due to two participants in the sample whose medical bills at Finley Hospital, following entry into diversion, totaled \$105,274.66. Since these two participants had no medical costs prior to entry into the diversion program, the pre- and post-diversion totals without these costs were \$228,785.63 (pre) and \$107,686.60 (post). We believe that these two participants represent outliers in the population and it was, therefore, important to note their presence since when they are removed from the sample we see a post-diversion reduction in costs to the County of \$121,099.03.

Referral Benefits

Importantly, the previous discussion refers only to the costs and benefits measured in the study. It is worthy to note that not all benefits accrued to participants were measured in this research. In discussions with the DCJDP facilitator it became apparent that during the course of

his workday there are numerous times he provides assistance to other criminal justice professionals in Dubuque. He has become the de facto resource for information regarding mental health resources and information among the Dubuque County criminal justice practitioners. In practical terms this means that a portion of his time is spent on duties other than those directly relating to DCJDP. This is not uncommon in any work environment as certain persons are often known to be more knowledgeable in particular areas than others. It was important to provide this information as it is difficult to quantify, but certainly relevant, when considering the costs and benefits of this program.

A time study performed by the DCJDP facilitator indicated that a small portion of his work week is spent assisting other probation officers and new arrivals at the Elm Street Residential Facility to gain access to mental health agencies. A full-time person with the expert knowledge concerning mental health issues, accessible to staff in these locations is, without doubt, financially beneficial but also difficult to quantify. In most weeks the DCJDP facilitator devotes an hour or less to these various referral services for the county.

Crime Cost Analysis

The final area to be examined is criminal behavior. This represents another area that is difficult to quantify in terms of economic cost. However, a small number of researchers have attempted to do so and we followed their approach. Research done in the State of Washington estimated the costs of a variety of crimes as follows: \$4.4 million per act of murder/manslaughter, \$219,286 per robbery, \$369,739 per rape/sexual assault, \$105,545 per aggravated assault, \$22,739 per property offense, and \$28,121 per drug offense (Aos, Phipps, Barnoski, & Lieb, 2001). Given that crimes committed by participants in our sample were considerably less serious than expenses mentioned above, we provide a very conservative estimate of costs using the figures associated with drug offenses.

Prior to entry into the DCJDP the participants included in the sample incurred a total of 103 charges in the State of Iowa. Multiplying this number by the cost of a drug offense indicates a cost of \$2,896,463.00. Following entry into the DCJDP the total charges incurred was 39. Multiplying this number by the cost of a drug offense results in a cost of \$1,096,719.00. The difference between these two amounts equals an estimated savings of \$1,799,744.00. While a rough estimate and not entirely representative of costs to Dubuque County alone, this number is still quite impressive.

DISCUSSION/CONCLUSION

The Dubuque County Jail Diversion program was examined to determine if it was meeting the goal of connecting jail inmates with co-occurring disorders to appropriate services. It was hypothesized that the DCJDP would result in lowered costs to Dubuque County. Additionally, it was expected that there would be lowered costs to the Dubuque County Jail, local medical facilities, and local psychiatric facilities. The data indicated that the DCJDP has experienced a level of success in achieving these goals.

Past studies on mental health and substance abuse problems revealed a large population of inmates receiving less than adequate service. In response to this problem, diversion programs were established nationwide. Various studies recognize that jail diversion programs are a viable option for cost-effective justice. Results of such studies indicate less time spent in prison and reduction in costs for medical and psychiatric services.

The present research sought to determine the cost-effectiveness of the Dubuque County Jail Diversion Program. Thirty-nine total participants out of a population of 219 participated. The cost analysis demonstrated a marked savings resulting from lowered time in jail. Cost of services, excluding two outliers, showed substantial savings for the County of Dubuque. The DCJDP also offers additional value through its coordinator who has a vital role in mental health facilitation. This value is considered an additional benefit specific to the DCJDP. Substantial savings in reduction of crime were also indicated in the study.

There are some limitations to this study. The sample size of participants is low but still almost a fifth of the total population. Further examinations on this topic could benefit from a larger pool of offenders. Measurements of time are not consistent throughout the research, so continued research on participants for a longer amount of time is necessary to access long term information on the success of the DCJDP.

Further research on this topic could profit from a comparison of different jail diversion programs in Iowa, or nationally to find ways in which to improve cost effectiveness. The data in this research indicates that the DCJDP is beneficial to Dubuque County, Iowa. Given budgetary issues, the criminal justice system may benefit from diversion programs that help to better manage resources while also serving inmates. With the model and success of the DCJDP it is our hope that more programs of this nature can be implemented to better serve communities in the United States.

References

Anonymous (2012). Quick Facts from the U.S. Census. Retrieved November 5, 2012:
<http://quickfacts.census.gov/qfd/states/19/1922395.html>

Aos, S., Phipps, P, Barnoski, R., and Lieb, R. (2001). The Comparative Costs and Benefits of Programs To Reduce Crime. Washington State Institute for Public

James, D.J., and Glaze, L.E. (2006). Mental Health Problems of Prison and Jail Inmates. Bureau of Justice Statistics.

Minton, T.D. (2011). Jail Inmates at Midyear. Bureau of Justice Statistics.