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Executive Summary

Introduction

As jurisdictions throughout the country continue to seek solutions to juvenile justice issues, several jurisdictions have merged two existing models to create an innovative approach: Juvenile Drug Courts: Strategies in Practice (JDC:SIP; National Drug Court Institute [NDCI] & National Council of Juvenile and Family Court Judges [NCJFCJ], 2003) and Reclaiming Futures (RF; http://reclaimingfutures.org/). The Office of Juvenile Justice and Delinquency Prevention (OJJDP) and the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Treatment (CSAT), in partnership with the Robert Wood Johnson Foundation (RWJF), funded an initiative to improve the effectiveness and efficacy of juvenile drug courts (JDCs) by integrating these two models. Five JDC sites that received funding under this initiative were included in the National Cross-Site Evaluation of Juvenile Drug Courts and Reclaiming Futures (i.e., the JDC/RF National Cross-Site Evaluation).

The JDC/RF National Cross-Site Evaluation was led by The University of Arizona's Southwest Institute for Research on Women (SIROW) in partnership with Chestnut Health Systems and Carnevale Associates, LLC. Its purpose was to conduct an independent evaluation of the combined effects of the JDC:SIP and the RF models to identify the factors, elements, and services that perform best with respect to system and client outcomes and cost-effectiveness. The JDC/RF National Cross-Site Evaluation had multiple foci addressing five research objectives and eleven research questions. Generally, the JDC/RF National Cross-Site Evaluation was charged with: (a) assessing the influence of the implementation of the integrated JDC/RF model on system and client outcomes; (b) assessing the influence of program characteristics on client receipt of services and on client outcomes; (c) evaluating the economic impact of JDC/RF programs; (d) expanding on previous evaluations to further describe the process of the integration and implementation of JDC:SIP and RF; (e) evaluating the services provided by the JDC/RF programs; and (e) assessing the potential for replication of the integrated model. Key findings include:

- JDC/RF programs appropriately identify, enroll and provide services to youth in need.
- JDC/RF program clients consistently and frequently receive evidence-based substance abuse treatment and other services and are retained in treatment as needed.
- JDC/RF programs are more effective at reducing criminal behavior than non-RF JDCs and
 intensive outpatient treatment programs (IOPs) among youth with relatively more criminal
 activity at program intake.
- Compared to IOPs, JDCs overall are *more effective* at reducing substance use *among youth with* relatively more substance use at program intake.
- Integrated systems of care and treatment tailored to the target population are particularly critical to effectively serving the substance abuse treatment needs of JDC/RF program clients.
- Substance abuse treatment program characteristics including having a defined target population and eligibility criteria, utilization of gender-appropriate treatment, utilization of policies and procedures responsive to cultural differences, utilization of a non-adversarial approach,

- coordination with the school system, utilization of sanctions to modify non-compliance, and utilization of random and observed drug testing are associated with improved client outcomes.
- JDC/RF programs produce *net benefit to society at a savings of \$84,569 per youth* making it a cost saving intervention for juvenile offenders with substance use disorders.
- JDC/RF programs can increase cost savings by taking advantage of available in-kind resources (e.g., volunteers), targeting clients who self-report more clinical problems or have committed more violent crimes, and by maintaining clients in treatment.
- JDC/RF team members work to increase community collaboration and utilize a wide range of community resources to meet the needs of program clients.
- JDC/RF programs are viewed as actively working towards and as achieving collaboration among local youth-serving agencies.
- Family Engagement is a challenge for JDC/RF programs.
- Representatives from JDC/RF sites perceive Reclaiming Futures as an opportunity to refine internal processes rather than as an entirely new approach.

Outcome Findings

Client Outcomes

Effect of Type of Program

Results of multiple analyses indicate that JDC/RF programs, JDC-only programs (JDCs not implementing RF), and intensive outpatient programs (IOPs) (i.e., treatment only programs) were effective at reducing substance use and criminal behavior, particularly among clients with more substance use and criminal behavior at program intake. As a result of these programs, clients self-reported fewer days of recent substance use, fewer substance problems, less frequent and less recent illegal activity, and recently committing fewer crimes at 6 months post-intake compared to at intake.

In order to address the influence of the JDC/RF integrated model on client outcomes, the evaluation team conducted a meta-analysis comparing the JDC/RF programs, JDC-only programs, and IOPs. Findings of these analyses indicate that JDC/RF programs, JDC-only programs, and IOPs were similarly effective at reducing substance use. However, JDC/RF programs had a differential effect on criminal behavior outcomes (i.e., number of crimes and illegal activity) relative to JDC-only programs and IOPs. JDC/RF programs were more effective than JDC-only programs and IOPs at reducing criminal behavior among youth with relatively more criminal activity at program intake. Therefore, program eligibility criteria and the resulting youth enrolled in the programs have a meaningful impact on program effectiveness. JDC/RF programs might be more effective and efficient if they target youth with relatively more criminal activity and related problems.

Results also indicated that JDC programs (JDC/RF and JDC-only programs) have a differential effect on substance use outcomes relative to IOPs. JDC programs were particularly effective for youth with relatively more substance use at program intake. Again, program eligibility criteria and the resulting youth enrolled in the programs have a meaningful impact on effectiveness of JDC programs.

These findings were not explained by differences in the clients served by the different types of programs. The clients served by JDC/RF programs, JDC-only programs, and IOPs differed in their demographic characteristics (gender, age, and ethnic/racial minority status), the intensity of their substance use and problems, their criminality, and their mental health status. Even so, all of these programs were generally effective at reducing substance use and crime-related outcomes. Furthermore, the greater effectiveness of JDC/RF programs compared to JDC-only programs and IOPs at reducing criminal behavior among youth with relatively more criminal activity at program intake and the greater effectiveness of JDC programs compared to IOPs at reducing substance use outcomes among youth with relatively more substance use at program intake were not due to these client differences. These findings suggest that there is something particular about the programs that is causing these differences is effectiveness.

Effect of Program Characteristics

The evaluation team examined the impact of key activities of the integrated JDC/RF model on substance use and criminal behavior of the JDC/RF program clients. There were several key activities that were implemented fully at all of the JDC/RF evaluation sites (e.g., defined eligibility criteria). Because of this lack of variation between programs, the impact of these key activities on JDC/RF client outcomes could not be examined. Several of the other key activities of the integrated JDC/RF model (e.g., regular, random drug testing) had no detectable impact on substance use and criminal behavior outcomes.

A few key activities of the integrated JDC/RF model, however, were related to positive substance use outcomes. The JDC/RF programs that implemented the following key activities to a fuller extent were more effective at impacting days of substance use at 6 months post-intake among clients who engaged in more days of substance use at program intake as compared to JDC/RF programs that implemented these key activities to a lesser extent:

- Community Engagement and Collaborative Partnerships
- Educational Linkages
- Community Transition Phase

The evaluation team also examined the impact of specific program characteristics on client substance use and criminal behavior outcomes. There were a number of program characteristics that were evident at all of the adolescent substance abuse treatment programs—JDC/RF programs, JDC-only programs, and IOPs—examined. Thus, the impact of these program characteristics on JDC/RF client outcomes could not be examined. In addition, there were several program characteristics that were found to have no impact on substance use and criminal behavior outcomes.

Table i below highlights the program characteristics that were found to have a desirable impact on client substance use and criminal behavior outcomes.

Table i:

Program Characteristic	Desirable impact on:	
	Client substance abuse outcomes	Client criminal behavior outcomes
Having a defined target population and eligibility criteria*	Х	
Having culturally sensitive policies and procedures	Х	
Utilizing gender-appropriate treatment*	X	Х
Utilizing a non-adversarial approach		Х
Having educational linkages (coordination with school system)*		Х
Utilizing sanctions to modify non-compliance*		Х

^{*}Characteristic was particularly effective at impacting outcomes of clients who engaged in more days of substance use or criminal activity at program intake (as compared to those who engaged in fewer days of substance use or criminal activity at intake).

As indicated in Table i, some of these program characteristics were particularly effective at impacting outcomes of clients who engaged in more days of substance use or criminal activity at intake as compared to those who engaged in fewer days of substance use or criminal activity at intake. Therefore, programs utilizing the identified program characteristics might be more effective and efficient if they target youth with a particular severity of substance use and criminal behavior.

Program Characteristics Associated with Treatment Services Received

The evaluation team also examined whether JDC/RF program characteristics including (a) administration, (b) collaboration, and (c) quality of substance abuse treatment were associated with JDC/RF program clients' receipt of substance abuse treatment (Korchmaros et al., in print). Findings indicate that only two JDC/RF program characteristics were associated with receipt of needed substance abuse treatment. Effort toward systems integration was negatively associated with receipt of needed substance abuse treatment. Because higher scores on this index suggest the need for a more integrated system, this finding suggests that a JDC/RF program implemented within a system perceived as needing more systems integration is *less* effective at serving the substance abuse treatment needs of its youth clients than one implemented within a system not perceived as needing more systems integration. Supportive of this interpretation of the data, results also showed that as people involved in or familiar with the JDC perceived less adequate access to targeted treatment within their community, they perceived greater recent effort within their community to integrate systems, or a greater need for a more integrated system within their community.

Targeted treatment, the second program characteristic associated with receipt of needed substance abuse treatment, was positively associated with receipt of needed substance abuse treatment. This

finding suggests that a JDC/RF program implemented within a community where youth-serving agencies are perceived as having adequate access to targeted treatment is more effective at serving the substance abuse treatment needs of its clients than one implemented where youth-serving agencies are not perceived as having adequate access to targeted treatment. This finding in combination with the findings regarding the program characteristics particularly associated with client outcomes suggests that assessment of client need and tailoring treatment and services to meet those needs is critical to the provision of appropriate and effective treatment and services.

Economic Impact of JDC/RF Programs

The evaluation team examined the cost and consequences of implementing RF at the five JDC/RF evaluation sites. This analysis estimated the direct and indirect costs of the services provided by the JDC/RF programs to assess the economic value of the integrated JDC/RF model. The savings from reduced substance use and criminal activity were examined on an aggregate level across all JDC/RF sites to assess the overall economic impact of JDC/RF.

The average (mean) total annual cost of JDC/RF programs during the selected year for the analysis was \$1,712,482. The following are the categories that contributed to this total cost: criminal justice system, substance and mental health treatment, community services and volunteers, and miscellaneous. Based on participant case-flow information, the average annual cost per participant was \$50,216, and the average weekly cost per participant was \$963. Based on the mean length-of-stay, the average cost per participant over the duration of the intervention was \$38,288. Given that the cost analysis incorporated the value of volunteer time and other resources, the difference between direct expenditures by JDC/RF sites to run the programs (i.e., standard operating costs) and the opportunity cost of the programs (i.e., full value of all resources invested in the program, regardless of cost or funding source) is notable. Of the \$1,712,480 cross-site average annual cost of JDC/RF, 90% (\$1,540,166) represent direct expenditures and 10% (\$172,316) represent donated time and other resources. Based on direct expenditures only, the average annual cost per JDC/RF participant across all sites was \$45,320, and the average weekly cost per participant was \$869. Based on an average length of stay of 40.9 weeks in the JDC/RF programs, the average direct cost over the duration of the intervention was \$34,448. The additional cost per participant associated with donated time and other resources was: \$4,895 per year; \$94 per week, and \$3,840 over the duration of the intervention.

In addition to providing the economic cost of RF integrated within existing juvenile justice systems, the evaluation team also assessed the incremental costs of RF. Staff and volunteer time, assessment, community services, and training and technical assistance were included in the RF incremental costs calculation. Across sites an average of 15% of the total costs can be attributed to the implementation of RF.

To estimate and compare differences in program expenditures and societal costs between JDC/RF and standard JDC programs, the analysis factored in an average annual cost per standard JDC program from a recent meta-analysis (Carey, 2013), and outcomes from standard JDC programs. To determine the

cost savings associated with JDC/RF, the economic analysis estimated the reductions in societal costs and the net annual savings in JDC and JDC/RF based on a comparison of four outcomes: physical health problems, mental health problems, missed school or work, and criminal activity. Changes in the outcome measures from pre- to post-program translate to an average savings in the JDC/RF program of \$169.72 per youth for days of missed school or work, a \$267.27 savings per youth for days of mental health problems, and a \$122,565 average savings per youth for crimes committed. Physical health problems actually increased during this timeframe generating an additional \$144.56 in societal costs for reported days of physical health problems. These components total to an average savings of \$122,857 per JDC/RF youth. Once the costs associated with providing JDC/RF services are subtracted out (\$38,288), a net savings of \$84,569 per youth remains. To put these savings into perspective, for every 50 youths served by the JDC/RF program, there is a net savings of \$4,228,469, and for every 100 youths served, there is a net savings of nearly \$8.5 million.

Process Findings

The evaluation sites worked to improve the efficacy and effectiveness of JDCs by integrating RF into their programs. There were many differences and variations in the means by which sites conducted these efforts, as they had no blueprint for integrating and implementing JDC/RF and there was diversity among the sites and programs (e.g., different geographic locations, populations, sizes). Regardless of these many differences there were similarities as well as differences in the resulting implementation of JDC/RF and in the resulting improvements in efficacies and effectiveness of JDCs.

Integration, Implementation and Services Provided

The evaluation sites proposed JDC/RF programs designed to reach youth in their communities who have law violations and abuse substances by integrating the JDC:SIP and RF models. Each site convened Drug Court/Change Teams—teams of stakeholders consisting of JDC administrators, justice/judicial staff, substance abuse treatment staff, and community members—in order to facilitate the implementation of an integrated JDC/RF model. Findings indicate that Drug Court/Change Teams were perceived as having a substantial leadership role in affecting the day-to-day implementation of the JDC:SIP and RF models. However, their perceived impact varied from one evaluation site to another, indicating that not all Drug Court/Change Teams are the same with regard to their impact.

This variation across JDC/RF evaluation site was not limited to the Drug Court/Change Teams. Services varied from one evaluation site to the next. All of the JDC/RF evaluation sites implemented evidence-based substance abuse treatment models; treatment models that have been studied and found to be effective. However, two of the five evaluation sites used the Adolescent Community Reinforcement Approach (A-CRA; Godley, Smith, Meyers, & Godley, 2009) as their primary treatment model, while two other evaluation sites used The Seven Challenges (Schwebel, 2004; 2010). One evaluation site used A-CRA for individual counseling and The Seven Challenges in groups. One site had three program tracks (mental health-only treatment track; substance abuse treatment track; recovery classroom track). Two sites had two program tracks (one with tracks based on intensity of substance abuse treatment services

and the second with tracks based on severity of youths' criminal involvement). Two sites had a single program track (substance abuse treatment track). The number of days it took to formally enroll into the JDC/RF program from referral varied from one day to 42 days, with an average of 17 days across sites. The number of days from referral to treatment initiation also varied from five days to 42 days with an average of 24 days across sites.

Variations in JDC/RF implementation included variations in the substance abuse treatment delivery system. Evaluation sites either had a single treatment provider or a network of treatment providers. Two sites contracted with a single treatment provider, with one site having a clinician from the treatment organization housed at the JDC/RF program site. Of the remaining three evaluation sites, one site had the primary substance abuse treatment provider on site, but had a network of many other providers to offer a full continuum of care for youth. Another site contracted with three substance abuse treatment providers. Program staff at the fifth site received training and certification in A-CRA and provided these sessions in house. If necessary, they referred youth to any one of six other substance abuse treatment providers with whom they contracted.

There were also variations across evaluation site in service delivery. JDC/RF program clients' average length of stay varied from 32.3 weeks, for the shortest duration at one evaluation site, to 56.7 weeks for the longest length of stay. Number of services received varied across evaluation site as well, ranging from an average of 12 at one evaluation site to 56 at another site.

While variations in client profiles across evaluation sites were notable, similarities also were present. Across the evaluation sites, there was an average of 35 youth receiving services at any given time per site. Some evaluation sites enrolled youth who were younger than 13 or older than 17 years of age. However, over half (54%) of clients across the five sites were 15 to 16 years old. The majority (90%) of JDC/RF program clients started using substances before the age of 15, and nearly one-third (32%) had been using for five or more years. A large percentage (68%) of clients also had mental health problems and nearly two-thirds (64%) had a history of victimization.

While differences existed with regard to the Drug Court Change Teams, treatment models, treatment delivery system, and some client characteristics, similarities existed across the sites with regard to the implementation of the key elements of JDC:SIP and RF. The evaluation team developed an integrated JDC/RF logic model which describes and depicts the integration of JDC:SIP and RF. The 16 "key elements" or "key activities" referred to are a synthesis of the two models. Two of the five evaluation sites fully implemented 11 of the 16 key activities of the integrated JDC/RF model identified by the evaluation team and a third site implemented 10. The remaining two sites implemented eight and seven of the 16 identified key activities. Four key activities that were fully implemented at all five evaluation sites included (a) Judicial Leadership Aligned with JDC and RF Concepts, (b) Defined Eligibility Criteria, (c) Comprehensive Screening and Ongoing Assessments, and (d) Strength-Based Incentives and Sanctions.

To further understand the process of the integration and implementation of JDC:SIP and RF, the evaluation team conducted a cross-site analysis of programmatic changes. All sites made changes to

their proposed plan. The four main types of program adaptations and modifications included (a) Partnerships, (b) Process, (c) Staffing, and (d) Services. Across the five evaluation sites and the four types of modifications, there were a total of fifty-two programmatic changes in the implementation of JDC:SIP and RF.

Partnership changes were the most common (31% of all changes). These changes were made by all five sites. They included proposed partnerships that were never established, partnerships that ended due to difficulties working across agencies and/or services not being needed, and new unplanned partnerships that were established due to program need.

Modifications in process were the second most common (29% of all changes) type of change and were made by all five sites. These changes were grouped into six sub-categories with the most common of these being a change in eligibility and enrollment numbers. Four of the five JDC/RF evaluation sites decreased the targeted number of youth served due to factors such as fewer youth arrests than in previous years, strict eligibility criteria, and/or the introduction of a law that allowed youth's charges to be dismissed and their record sealed through traditional probation.

Four of the five sites evidenced staff changes, which comprised 25% of the total changes. The majority of staff changes were attributed to staff turnover or attrition. A smaller percentage was attributed to changes in staff roles and allocation of duties.

Modifications related to services occurred the least frequently (15% of all total changes). Yet still, four of the five sites evidenced these changes, which were of three types. Program modifications included planned programs that were not implemented. Treatment modifications included such changes as adding a treatment component to address specific client needs. Changes in treatment models included utilization of a different evidence-based practice (EBP) than what was originally planned.

Sites had access to training and technical assistance (TTA) to support them in their implementation of the JDC:SIP and RF models. CSAT funds were allocated to provide TTA related to the implementation of EBP (e.g., ACRA, GAIN). RWJF provided funding to support the implementation the RF model through the RF National Program Office (NPO) and OJJDP provided funding on the implementation of JDC:SIP through the NCJFCJ. Sites received numerous trainings from the national organizations. These trainings covered a wide range of topics but the most frequent types of trainings were focused on treatment and service provision followed by organization and sustainability. However, JDC/RF program staff reported that there was a lack of training on how to implement the integrated model. There were inter-site trainings, but the models were addressed separately.

System Changes

Findings indicate that not all of the JDC/RF evaluation sites experienced the same system-level effects from the implementation of the integrated JDC/RF model. All evaluation sites reported widespread systematic changes, albeit to varying extents, where staff are more cohesive and JDC/RF was thoroughly

integrated into the culture rather than being approached as a mere grant requirement. The evaluation sites also stated that the incorporation of a program component that was specifically related to transitioning youth out of court and treatment services and linking them to community resources was a main area of positive change because it led to great improvements in the quantity and quality of community partnerships. One JDC/RF evaluation site reported that the JDC/RF grant-funded project experience led them to develop specific goals with measureable outputs and gave them a concrete structure to track their activities. Another site stated that having the requirement to conduct the Global Appraisal of Individual Needs (GAIN; Dennis, Titus, White, Unsicker, & Hodgkins, 2003)—a standardized bio-psycho-social assessment tool—at post-intake (i.e., follow up) not only promoted accountability among youth in the JDC/RF program, but made the youth more willing to engage with program staff over the course of the JDC/RF program, and the staff more willing to engage with the youth. Finally, one evaluation site reported that the primary unexpected change in their JDC/RF program, resulting from the OJJDP- and SAMHSA-funded grant, was that the court moved from a punitive model to a strengthbased model – a model that emphasizes the assets and strengths that youth bring to the program. Program staff at three of the five evaluation sites suggested that their JDC embraced systemic change during the implementation of RF and these shifts became embedded in the way the JDC operated more broadly.

Perceptions of the quality of the JDC system indicated similarities across as well as differences between JDC/RF evaluation sites. Almost all JDC/RF program staff described efforts by their JDC/RF team to cultivate and sustain system-wide collaboration consistent with the JDC/RF model. JDC/RF program staff emphasized that effective collaboration within the juvenile court system (e.g., JDC/RF team, detention, partners providing treatment, and case management) and with the wider community (e.g., pro-social or employment agencies, and individual mentors) expanded their capacity to address youth needs. Overall, people involved or familiar with the JDC/RF programs at all of the JDC/RF evaluation sites had favorable perceptions of how the JDC/RF programs managed resources, how hard the programs worked to integrate systems, the use of effective screening and assessment tools, the scope and impact of treatment services, the involvement of and relationship and cooperation among community partners, and the timing and quality of the sharing of *client* information among the youth-serving agencies. Less favorable overall impressions were related to general sharing of information among agencies, the ease with which program clients were able to access services and treatment, the JDC/RF programs' cultural competence and responsiveness, the role of family members in designing and delivering services, the availability and use of prosocial activities, and the availability of treatments appropriate for specific client groups (i.e. gender specific treatment, LGBTQ targeted treatment) at all of the JDC/RF evaluation sites. All of these perceptions related to the quality of the JDC system varied by JDC/RF evaluation site, indicating that not all sites experienced the same system-level effects of implementing JDC/RF. In addition, no one evaluation site's JDC/RF program excelled above the other evaluation sites' programs. All of the evaluation sites' JDC/RF programs were more favorably perceived on some of the qualityrelated characteristics and less favorably perceived on other characteristics as compared to the other sites.

Replication Potential of the JDC/RF Integrated Model.

Data from the cross-site evaluation points to the potential for replication of the integrated JDC/RF model. While multiple findings highlight the differences between the evaluation sites including their interpretation and implementation of the integrated JDC/RF model, findings from the evaluation also highlight the similarities across the sites. One area of similarity is the fidelity to which the integrated JDC/RF model was implemented. All five evaluation sites fully implemented at least seven of the 16 key activities of the integrated JDC/RF logic model with three of the sites implementing at least 10 of the 16 key activities. Furthermore, a meta-analysis comparing JDC/RF programs, non-RF JDC programs and IOPs revealed substantial similarity across adolescent substance abuse treatment programs. Twenty-two of 27 (81%) program characteristics examined that are promoted as key factors of effective JDCs by both JDC:SIP and RF were found present to the same extent in all of the JDC/RF programs, JDC-only programs, and IOPs examined. The implementation of the 16 key activities of the integrated JDC/RF model and the commonality of characteristics across different types of adolescent treatment programs demonstrate potential replicability not only of the JDC/RF integrated model but of JDC and IOP program models as well.

In sum, there was great variation in the implementation and integration of the JDC:SIP and RF models across the JDC/RF evaluation sites. Similarly, the system-level effects from the implementation of the integrated JDC/RF model were not the same at all evaluation sites. Despite the differences, evaluation sites were able to implement the integrated model with fidelity. Several key activities of the integrated model made a positive impact on client substance use and criminal behavior. Likewise, several program characteristics in the integrated model had a positive impact on client substance use and criminal behavior. The integrated model produces a net savings of \$84,569 per youth and findings suggest that it is possible for other jurisdictions to replicate the outcomes of the integrated JDC/RF model in their own programs.