

# ECONOMIC EVALUATION OF THE JUVENILE DRUG COURT/RECLAIMING FUTURES (JDC/RF) MODEL

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# Overview of Presentation

- Motivation for conducting an economic analysis of JDC/RF
- Describe approach to cost analysis and benefit-cost analysis
- Present results of the economic evaluation of JDC/RF across five sites
- Discuss limitations and policy implications

# Introduction

- As part of the cross-site evaluation, an economic analysis was planned to estimate program costs of JDC/RF
- Important to understand the cost of implementing RF within existing JDC settings
  - What are the anticipated start-up and operating costs for a new site that wants to adopt RF?
  - Beyond direct expenditures to run JDC/RF programs, what are the additional opportunity costs (e.g., volunteer effort)?
- Estimate cost-savings by comparing program costs to the benefits derived from reduced criminal activity, physical health problems, mental health problems, and missed days of school or work

# Cost Analysis - Background

- Previous economic study of RF conducted in 2010 (Roman et al.)
- Cost data came from the National Program Office (NPO) expenditure reports and budget reports for individual sites
- Expenditures were organized by the type of grant under which they occurred (planning grant, implementation grant, treatment enhancement grant, communications grant, local evaluation grant)
- Looked at potential savings from reduced recidivism and estimated the number of served youth needed to “break even”
- Cost of standard operations for the average site over a four-year period was \$1.1 million (ranged from \$799,815 to \$1.2 million)
- Based on potential savings from reduced recidivism, projections indicated that a JDC/RF program needs to serve a minimum of 200 participants per year to offset operating costs (i.e., to be cost effective)

# Cost Analysis - Approach

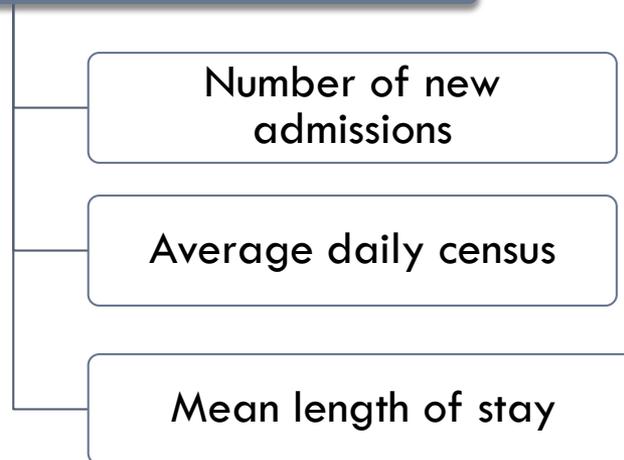
- ❑ Identified core resource categories to guide cost data collection
- ❑ Criminal justice system (courts and legal representation, probation, detention)
- ❑ Behavioral health treatment (substance use and mental health)
- ❑ Community partnerships
- ❑ Screening, assessment, training and technical assistance
- ❑ Unique services such as education component
- ❑ All resources and costs associated with JDC/RF were queried regardless of funding source

# Cost Analysis - Approach

## Resource Categories



## Client Information



# Summary Costs of JDC/RF

	Total Annual program cost	Annual program cost per JDC/RF program client	Mean Length-of-stay	Mean Daily census	Weekly cost per JDC/RF program client	Episode cost per JDC/RF program client
Minimum	\$782,001	\$27,196	32.3	12.0	\$522	\$19,299
Maximum	\$3,442,661	\$65,167	56.7	56.0	\$1,250	\$49,369
Mean	\$1,712,482	\$50,216	40.9	35.2	\$963	\$38,288
Standard Deviation	\$1,063,901	\$17,639	9.3	16.42	\$338	\$11,716

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# Direct Expenditures vs. Opportunity Costs

- Difference between direct costs incurred by programs and opportunity costs varied across the sites
- Of the \$1.7 million cross-site average annual cost of JDC/RF, 90% represents direct expenditures and 10% represent donated time and other resources

# Costs Specific to Reclaiming Futures

- Challenging to isolate RF-specific costs given that this is a systems-level approach embedding new practices within existing JDC settings
- Solicited feedback from each site regarding the financial implications of RF
- Incremental costs of RF comprised of staff and volunteer time, assessment, community services, and training and technical assistance
- Costs of RF ranged from 8% of total operating costs to 26% (average was 15% across all sites)

# Economic Benefits of JDC/RF

- JDC/RF program costs offset by savings to the juvenile justice, education, and public health systems generated by successful engagement in JDC/RF programs
- Four outcomes selected to estimate economic benefits:
  - ▣ Days experiencing physical health problems
  - ▣ Days experiencing mental health problems
  - ▣ Days missed from school or work
  - ▣ Criminal activity

# Economic Benefits of JDC/RF

- Changes in outcomes translated to dollar values using monetary conversion factors from the literature
  - ▣ Day of physical health problem - \$27
  - ▣ Day of mental health problem - \$11
  - ▣ Day missed school/work - \$20
  - ▣ Criminal acts – varies depending on type of crime
    - e.g., cost per larceny/theft is \$3,900 ; cost per vandalism is \$5,577; cost per motor vehicle theft is \$11,939

# Net Savings of JDC/RF

	Unit <sup>2</sup> cost <sup>2</sup>	Days/Times <sup>2</sup> year <sup>2</sup> before <sup>2</sup> intake <sup>2</sup> to <sup>2</sup> treatment <sup>2</sup>	Cost <sup>2</sup> year <sup>2</sup> before <sup>2</sup> intake <sup>2</sup> to <sup>2</sup> treatment <sup>2</sup>	Days/Times <sup>2</sup> year <sup>2</sup> after <sup>2</sup> intake <sup>2</sup> to <sup>2</sup> treatment <sup>2</sup>	Cost <sup>2</sup> year <sup>2</sup> after <sup>2</sup> intake <sup>2</sup> to <sup>2</sup> treatment <sup>2</sup> <sup>5</sup>	Change <sup>2</sup> in <sup>2</sup> days/times <sup>2</sup> from <sup>2</sup> year <sup>2</sup> before <sup>2</sup> to <sup>2</sup> year <sup>2</sup> after <sup>2</sup> (Pre- Post) <sup>2</sup>	Mean <sup>2</sup> Savings <sup>2</sup> (Pre-Post) <sup>2</sup>
Days of missed school or work <sup>2</sup>	\$19.58 <sup>2</sup>	23.7 <sup>2</sup>	\$464.01 <sup>2</sup>	15.05 <sup>2</sup>	\$294.29 <sup>2</sup>	8.65 <sup>2</sup>	\$169.72 <sup>2</sup>
Days of physical health problems <sup>2</sup>	\$27.02 <sup>2</sup>	13.15 <sup>2</sup>	\$355.27 <sup>2</sup>	18.52 <sup>2</sup>	\$499.83 <sup>2</sup>	-5.37 <sup>2</sup>	-\$144.56 <sup>2</sup>
Days of mental health problems <sup>2</sup>	\$10.94 <sup>2</sup>	115.74 <sup>2</sup>	\$1,266.17 <sup>2</sup>	91.33 <sup>2</sup>	\$998.90 <sup>2</sup>	24.41 <sup>2</sup>	\$267.27 <sup>2</sup>
Crime <sup>2</sup>	varies <sup>2</sup>	39.96 <sup>2</sup>	\$168,124.94 <sup>2</sup>	9.93 <sup>2</sup>	\$45,559.99 <sup>2</sup>	30.03 <sup>2</sup>	\$122,564.95 <sup>2</sup>
Total per youth <sup>2</sup>	<sup>2</sup>	<sup>2</sup>	\$170,210.39 <sup>2</sup>	<sup>2</sup>	\$47,353.01 <sup>2</sup>	<sup>2</sup>	\$122,857.38 <sup>2</sup>
					JDC/RF treatment episode costs <sup>2</sup>		\$38,288.00 <sup>2</sup>
					Total Net Savings (total savings - treatment episode costs) per youth <sup>2</sup>		\$84,69.38 <sup>2</sup>
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# Summary of Results

- Average cost of JDC/RF per participant was \$38,288
- Average savings of JDC/RF per participant was \$122,273
- Total net savings of JDC/RF per participant was \$84,569
  - ▣ Reductions in criminal activity driving results

# Discussion

- JDC/RF is cost-saving
- In-kind services/donations integral to successful adoption of RF within existing JDC settings
- Economic impact varied by client factors
  - ▣ Clients with 4+ clinical problems at intake to JDC/RF had an average savings for \$232,109 compared to those with <4 clinical problems (\$18,209)

# Limitations

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- Analysis of economic benefits based on self-reported data
- Variability in amount of community involvement, donated effort, and resources across sites suggesting possible reporting bias

# Conclusions

- Benefits of JDC/RF outweigh program costs making it a cost saving intervention
- JDC/RF programs can realize even more net benefits by taking advantage of in-kind services/donations available in their communities
- Programs can realize cost-savings by conducting targeted outreach, recruitment, and engagement for identified populations
- JDC/RF programs should use cost data to demonstrate program impact and sustainability

# Questions?



**Questions:** Contact Kathryn McCollister, [KMcColli@med.miami.edu](mailto:KMcColli@med.miami.edu), or Monica Davis, [midavis@email.arizona.edu](mailto:midavis@email.arizona.edu)

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