

How to Do Cost-Benefit Analysis in Your Adult Drug Court: Introducing the DCCAT, the New DCCMIS Addition!

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Who is NPC Research?

- In the past 10 years NPC has completed over 75 drug court evaluations and research studies including cost analysis
- Adult, Juvenile and Family Treatment (Dependency) Drug Courts
- In California, Guam, Indiana, Michigan, Maryland, Missouri, New York, Nevada Oregon and Vermont

Who is ACT?

- **Advanced Computer Technologies**
- **Worked with SCAO to create the DCCMIS**
- **Collaborated with NPC and SCAO to create the DCCAT**

Objectives for Today's Workshop

What is cost-benefit analysis and how do you do it?

- ❖ This workshop will define evaluation and cost-benefit analysis
- ❖ Describe the steps involved in performing NPC's analysis approach called Transactional and Institutional Cost analysis
- ❖ Preview the new component of the Michigan DCCMIS called the DCCAT (Drug Court Cost Analysis Tool)

What is Evaluation?

(Including cost evaluation/analysis)

- ❖ The systematic effort to collect and use program information for multiple purposes, including program improvement, program accountability, program management, and program development.
- ❖ Evaluation should help to inform and improve programs as they develop, and not focus only on whether the programs “worked” or “didn’t work.”
- ❖ Evaluation should involve a collaborative approach with the program sharing in the process and in understanding the results



Why Do Cost (or any) Evaluation?

- ❖ To determine how programs are working
- ❖ To determine whether and how to improve program functioning
- ❖ To meet accountability requirements
- ❖ To assess costs relative to benefits of programs
- ❖ To maintain or seek funding
- ❖ To build the knowledge base

Cost Evaluation Definitions

Cost-effectiveness analysis calculates the cost of a program and then examines whether the program led to its intended positive outcomes. (Outcomes are not “costed.”)



Cost-benefit evaluation calculates the cost of the program and also the cost of the outcomes, resulting in a cost-benefit ratio. (e.g., for every \$1 spent on the program, \$7.50 is saved in outcomes.)

Questions Answered by Cost Evaluation

1. What does it cost to run the program?
2. What does it cost to process an offender through traditional court? (What would you be paying anyway?) – comparison group.
3. What are the outcomes and are they cost-beneficial?
4. How will taxpayers be impacted by decisions to add or eliminate these programs?
5. What does it cost the different agencies that contribute resources to the program? What are the benefits to these agencies?

How do you do a cost evaluation?

- Numerous ways to perform a cost evaluation
- Which one you choose depends partly on the question(s)
 - How much does it cost to run the program?
 - Is the program worth the money?
 - Do we get a return on our investment in the program?
- Also need to keep in mind, cost to whom?
- Focus of today is cost-benefit evaluation
- NPC's TICA method

Transactional and Institutional Cost Analysis (TICA)

Transactional – Views each time a participant interacts with the system as a “transaction”

Institutional – takes into account the impact on the organizations and agencies involved

TICA Methods



- Step 1: Determine the flow/process
- Step 2: Identify the transactions
- Step 3: Identify the agencies involved
- Step 4: Determine the resources used
- Step 5: Identify costs associated
- Step 6: Calculate cost results

TICA Methods

Step 1: Determine the flow/process
(Process Evaluation)

DC program and “business-as-usual”

- Interviews
- Observation
- Document review

TICA Methods

Program Operation:

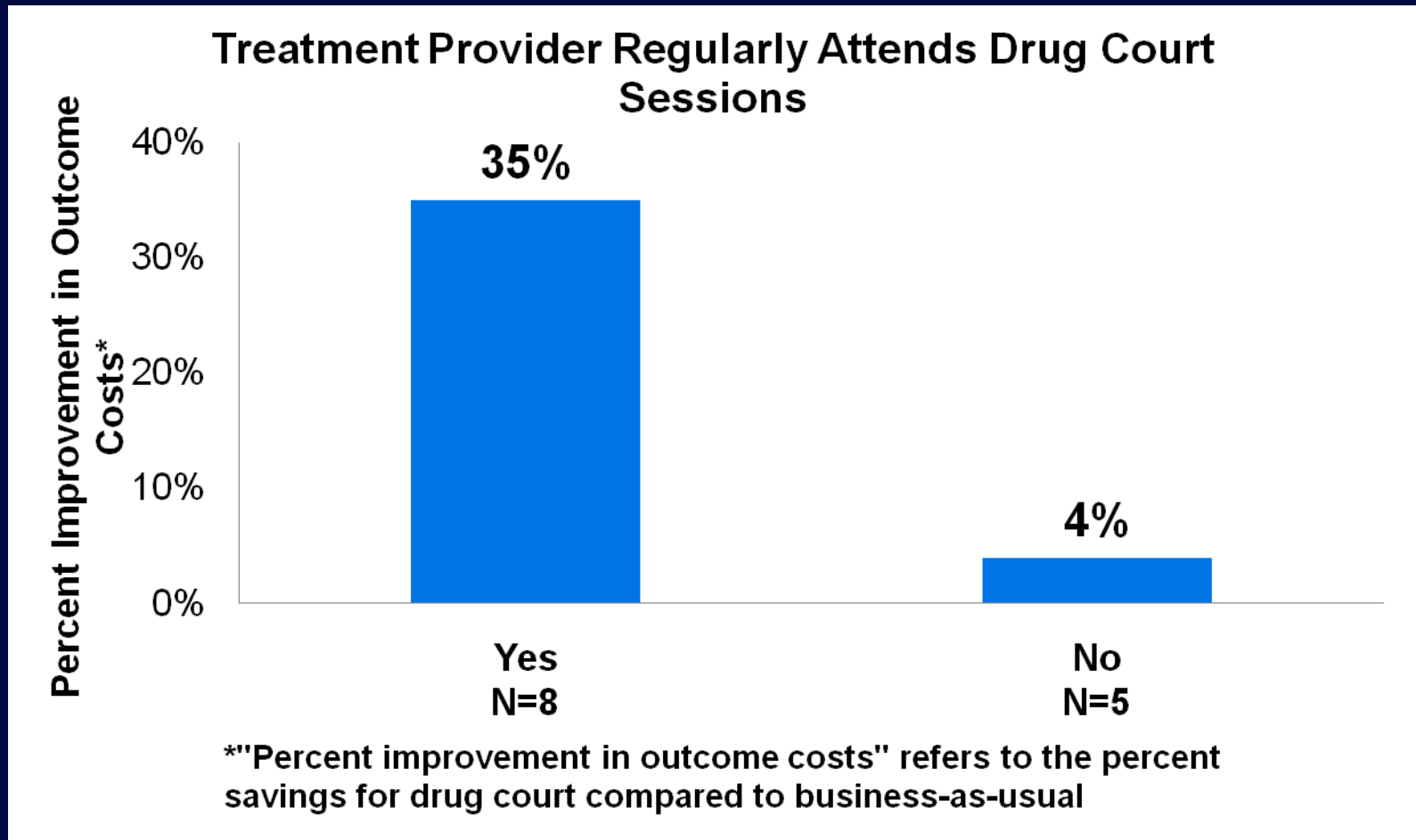
- What are the program practices?
- What services does it deliver?
- Are they being delivered as intended?
- Are participants completing the program and in the intended time frame?

Why do process evaluation?

Benefits:

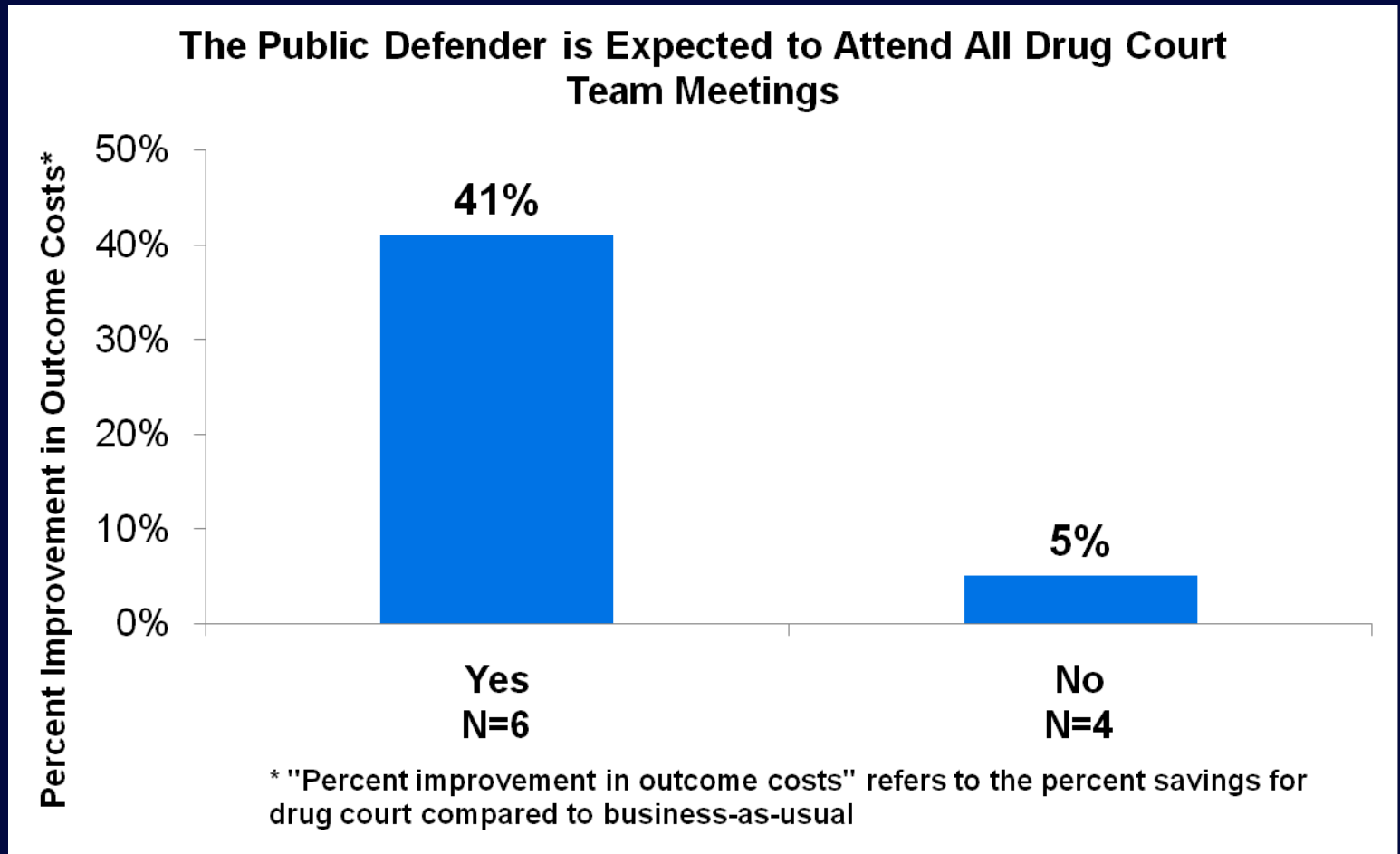
- Useful Information about program functioning
- Allows an assessment of the reasons for successful or unsuccessful performance
- Provides information for replicating the program in another site
- Contribute to program improvement
- Increase effectiveness for participants
- Better Outcomes, Better Cost-Benefits

Courts That Required a Treatment Representative at Drug Court Sessions Had 9 Times Greater Savings

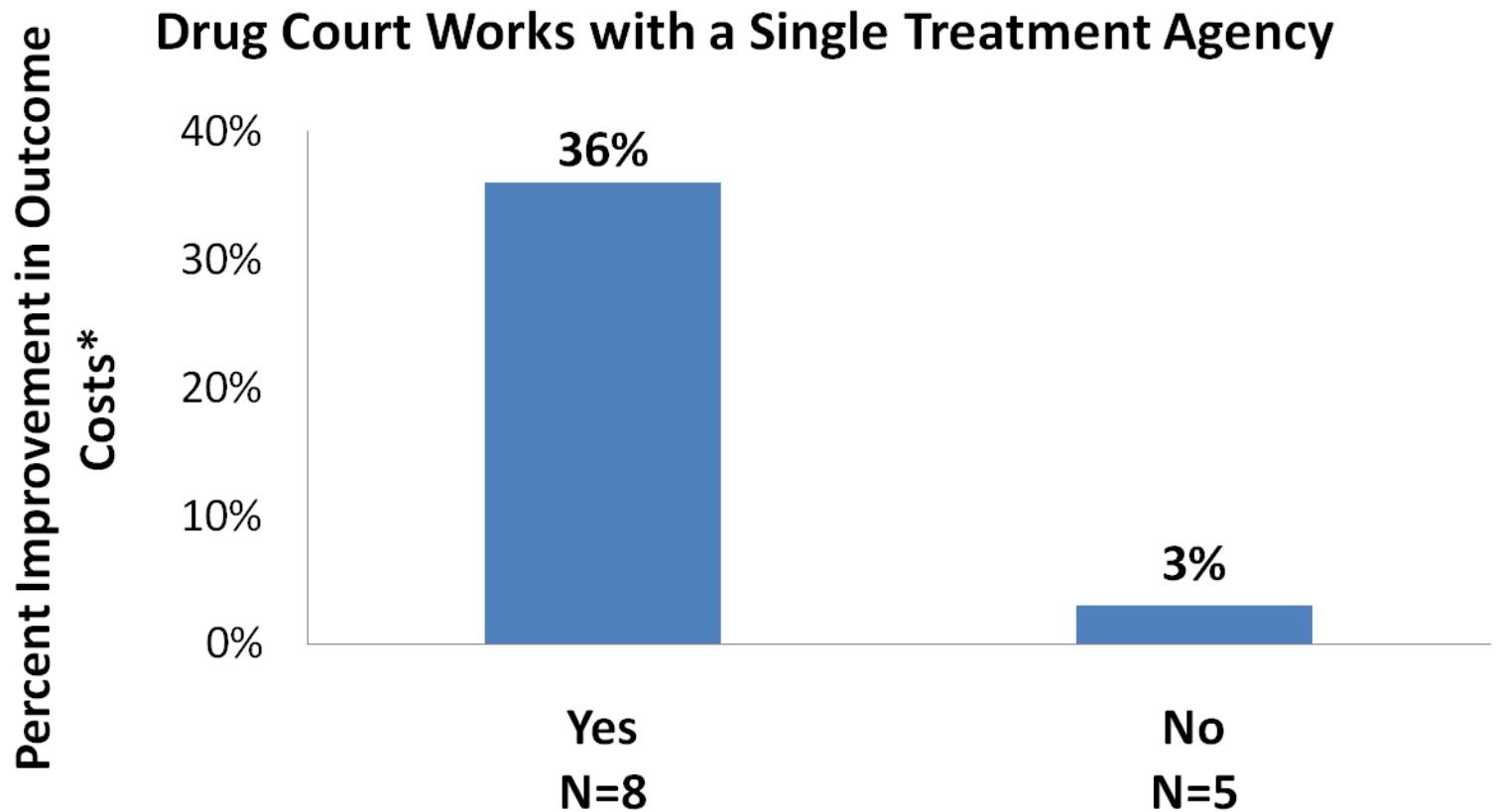


Note: Difference is significant at $p < .05$

Drug Courts Where the Public Defender was Expected to Attend All Drug Court Team Meetings Had 8 Times Greater Savings



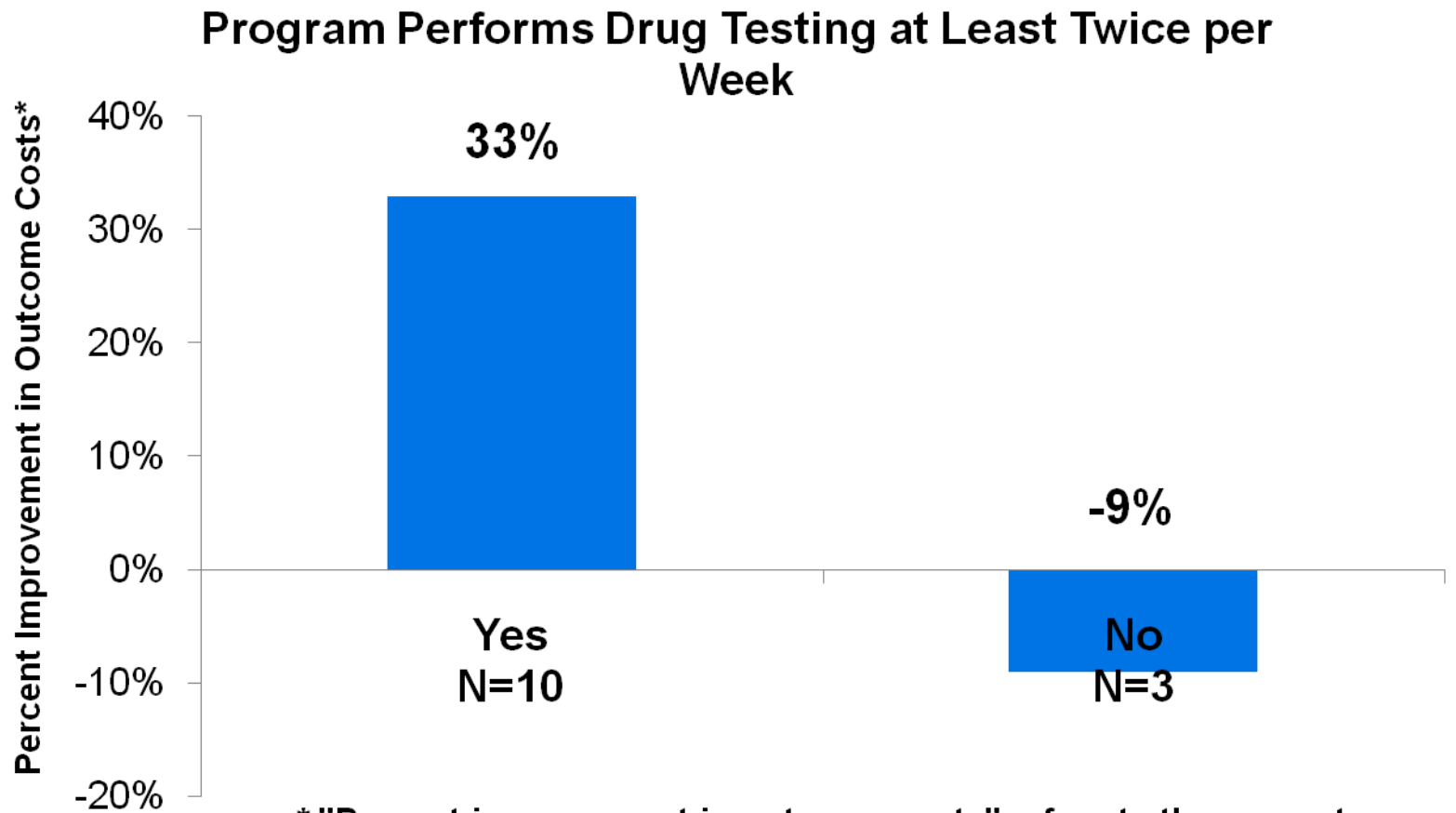
Courts That Used a Single Treatment Agency had 10 Times Greater Savings



* "Percent improvement in outcome costs" refers to the percent savings for drug court compared to business-as-usual

Note: Difference is significant at $p < .05$

Courts That Performed Drug Testing 2 or More Times per Week in the First Phase Had Savings



* "Percent improvement in outcome costs" refers to the percent savings for drug court compared to business-as-usual

Note: Difference is significant at $p < .05$

TICA Methods

Step 2: Identify the transactions

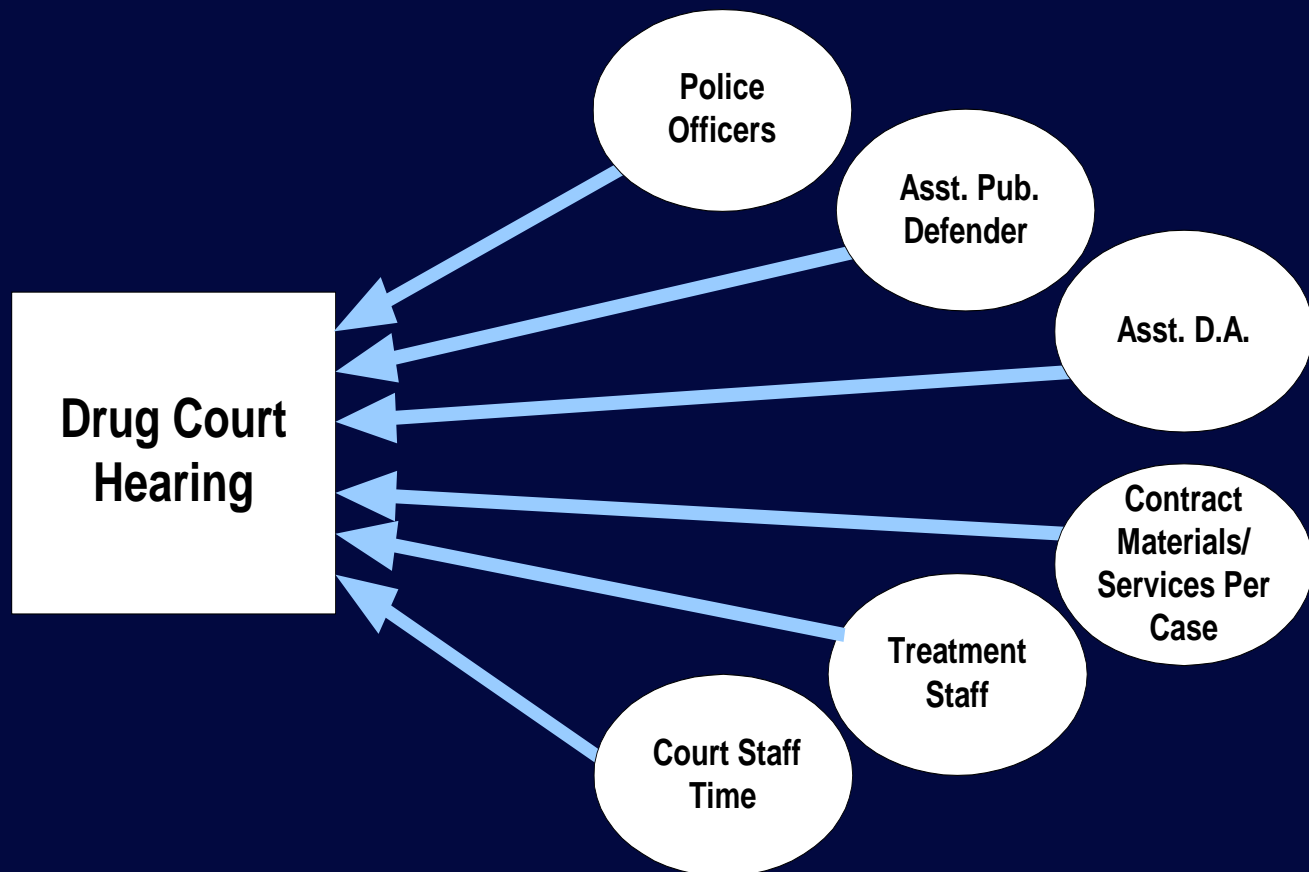
Examine the process description from Step 1

Examples of transactions:

- Drug court hearings
- Treatment sessions
- Drug Tests
- Re-arrests
- Jail Time

TICA Methods

Step 3: Identify the agencies involved
(Part of the process evaluation)



TICA Methods

Step 4: Determine the resources used
Interviews, Observations, Admin Data, Files

Do this for each transaction – example court
hearings

- Time spent in court
- Time spent preparing
- How many court hearings for each participant?
- How many re-arrests?

(Outcome evaluation. Need comparison group!)

TICA Methods

Step 5: Identify costs associated
(Cost of staff time, cost of a drug test, etc.)

Interviews and Budget Reviews

- Direct Costs (e.g., Salaries, benefits, supplies)
- Support Costs (% of direct costs) (e.g., clerical)
- Institutional Overhead Costs (% direct costs)
(e.g., facilities, lights)

TICA Methods

Step 6: Calculate cost results

- Investment Cost
- Net Investment
- Outcome Costs
- Net Outcome Costs
- Total Difference (Savings – or not)

STOP Adult Court Net Investment (per participant)

Non-Drug Court Participant Transactions	Investment Cost per DC Participant (n = 594)	Investment Cost Per Non-DC Offender (n=573)	Net Investment (Cost Savings)
Arrest (1)	\$192.91	\$192.91	\$0.00
Booking (1)	\$284.34	\$284.34	\$0.00
Court Time	\$681.54	\$678.50	\$3.04
Treatment	\$2,713.32	\$2,009.18	\$704.14*
Jail Sanctions	\$1,610.89	\$2,782.55	-\$1,171*
Probation time	\$513.64	\$1,421.84	-\$908.20*
Total cost	\$5,927.80	\$7,369.32	-\$1,442

Clackamas Juvenile: Investment Cost (per Participant)

Transaction	Transaction Unit Cost	Avg. # of Program Transactions	Avg. Cost per Participant
DC Appearances	\$373.83	29.55	\$11,047
Case Management	\$29.78	356.82 Days	\$10,626
Individual Treatment Sessions	\$52.48	8.35	\$438
Group Treatment Sessions	\$16.33	37.88	\$619
Family Therapy Sessions	\$19.99	9.12	\$182
Parent Support Group	\$9.54	26.41	\$252
Parent Education Classes	\$9.33	4.47	\$42
Drug Tests	\$6.00	70.96	\$426
Drug Patches	\$20.00	1.19	\$24
Total Drug Court			\$23,656

Recidivism Costs for Adult Drug Court and BAU per Participant

Outcome transactions	Drug Court outcome costs	BAU outcome costs	Net Outcome (Benefit)	DC savings over 10 years (n = 6,502)
Arrests*	\$852	\$1,197	\$345	\$2,243,398
Bookings*	\$598	\$868	\$269	\$1,750,566
Court time*	\$569	\$802	\$232	\$1,510,545
Jail time*	\$5,198	\$8,474	\$3,277	\$21,305,168
Treatment	\$1,392	\$1,779	\$387	\$2,514,974
Probation*	\$2,185	\$2,730	\$545	\$3,544,630
Prison*	\$5,402	\$7,091	\$1,688	\$10,977,002
Total outcome costs	\$16,197	\$22,941	\$6,744	\$43,846,283

➤ Outcomes showed a benefit of \$6,744 per drug court participant

Per Agency Investment

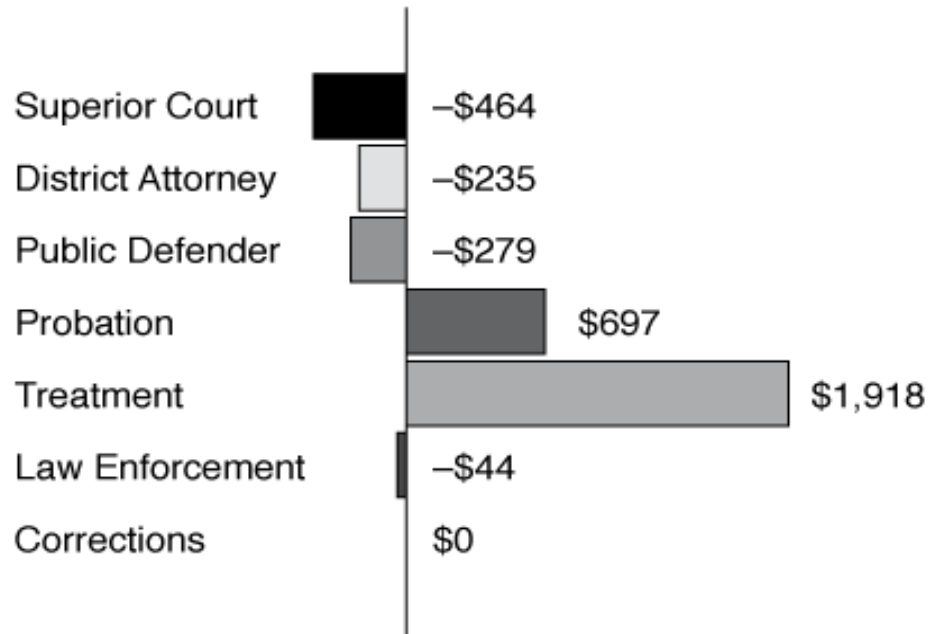
Agency	Cost per Drug Court Participant	Cost Per Non-Drug Court Participant	Net Investment
Court	\$98.70	\$73.75	\$24.95
Public Defender	\$208.00	\$416.00	-\$208.00
District Attorney	\$217.13	\$162.25	\$54.88
Law Enforcement (arrest, bookings, jail, bailiff court time)	\$2,106.37	\$3,286.30	-\$1,179.93
Treatment (DC treatment, non-DC treatment, Court time)	\$2,783.96	\$2,009.18	\$774.78
Probation	\$513.64	\$1,421.84	-\$908.20

Costs and Benefits

Average investment across 9 drug courts in California

Net Investment

Most agencies spent less on drug court than on traditional case processing.



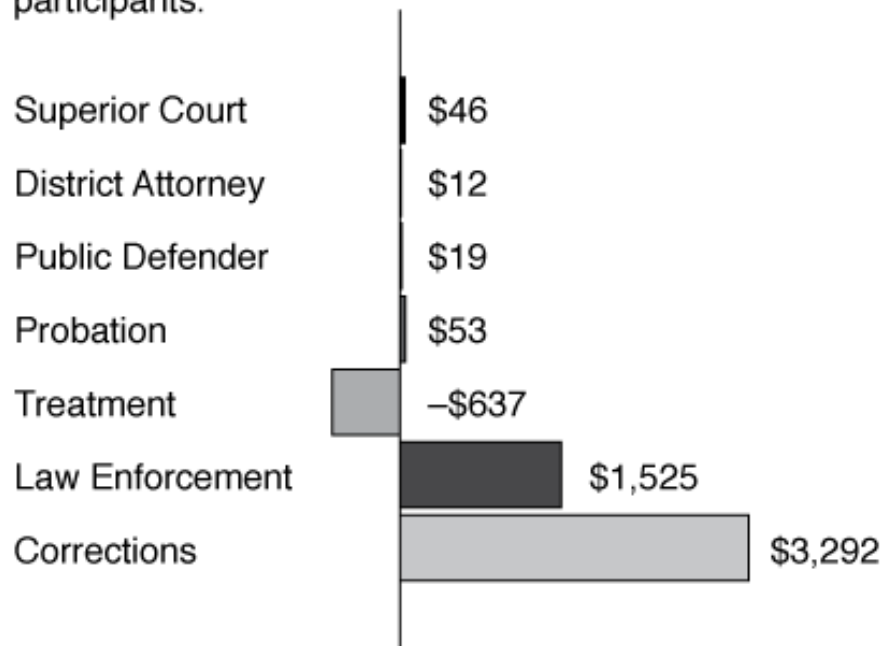
Nine-site average per participant

Costs and Benefits

Net savings
across 9 drug
courts in
California

Net Savings

Corrections and law enforcement realize greatest savings from reduced recidivism of drug court participants.



Nine-site average per participant

Drug Court Cost Analysis Tool

DCCAT

Drug Courts in Michigan can determine their own costs and benefits

- The DCCAT is hooked onto DCCMIS
- Your transactions are counted for you based on the participant data you have entered
- You pick the time frame and follow the instructions to answer cost questions (staff salaries, benefits, etc.)
- DCCAT calculates the results

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