

Performance Measurement and Program Evaluation For Drug Courts

Fred L. Cheesman II, Ph.D.

The National Center for State Courts



Module 1: Introduction

- Goal of this Presentation
 - To enable participants to be better consumers of drug court evaluation and performance measurement information
- Objectives
 - To increase participants' knowledge of the evaluation process
 - To enable participants to distinguish performance measurement from program evaluation



Defining Your Program

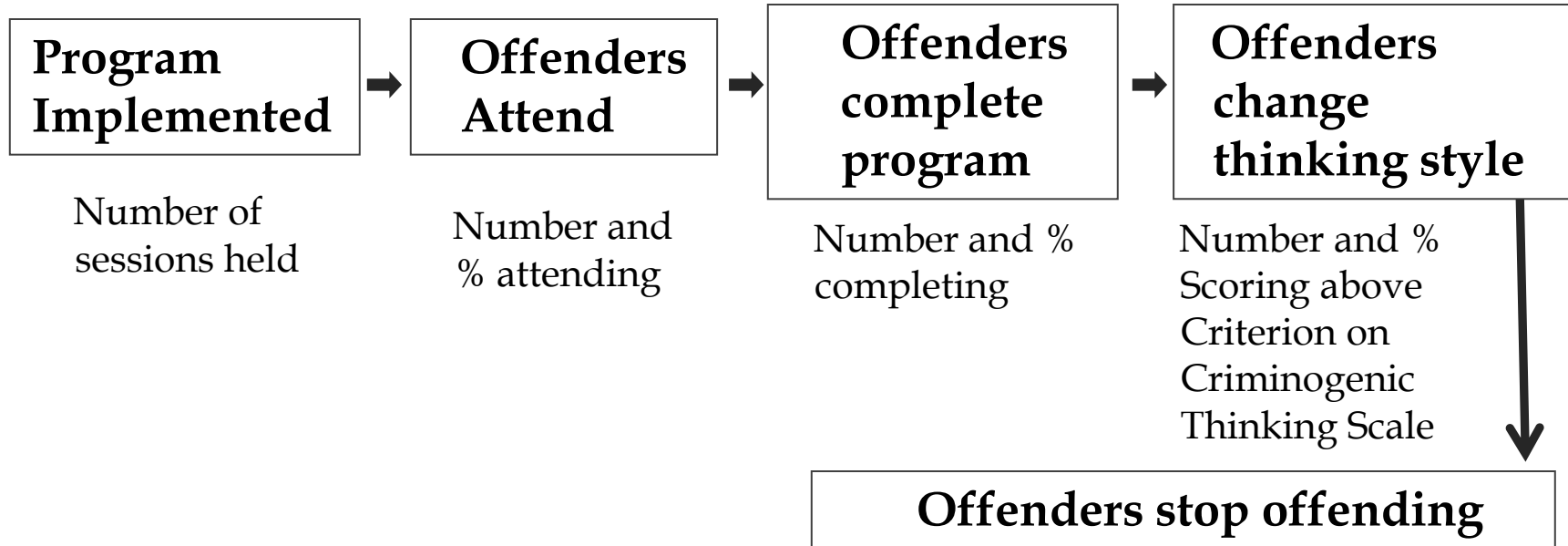
- Expected outcomes are clearly articulated
- Intended means for producing those outcomes can be fully specified
- Means and ends are integrated in a coherent conceptual framework
- Framework shows a plausible relationship between the program process and the expected outcomes

(Lipsey, 2004)



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Outcome - Sequence Chart with indicators: A cognitive-behavioral program for offenders



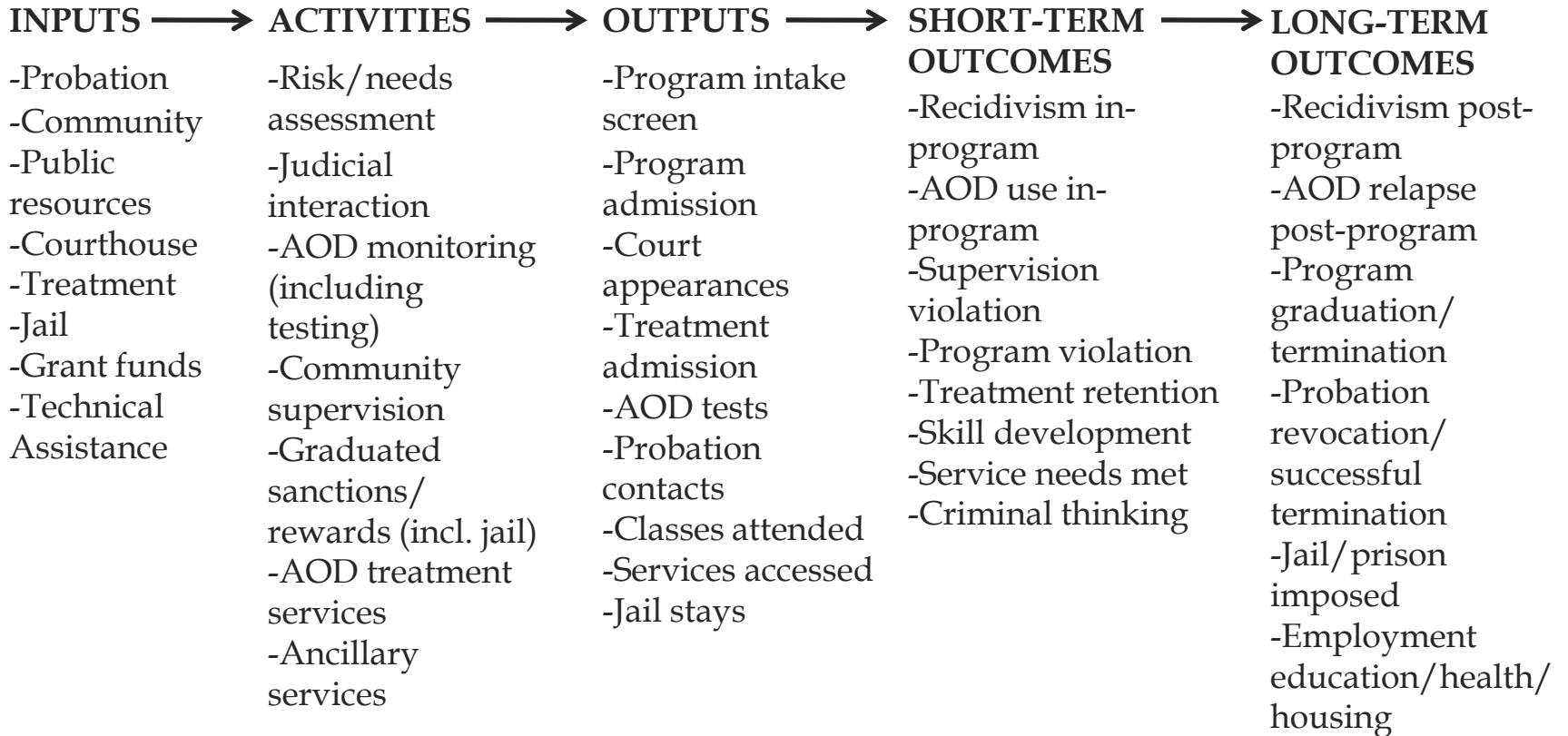
Number and % re-arrested



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Adult Drug Court Program Logic Model

(Truitt, 2010)



EXTERNAL FACTORS

Community (including Tribal Council)

Legal/Penal Code

Courthouse

Defendant/Offender



Logic Model Components Defined

- **Inputs/Resources:** Program ingredients, e.g., funds, staff, participants
- **Activities/Processes:** The method used to accomplish program goals, e.g., classes, counseling, training



Logic Model Components Defined

- **Outputs:** Units produced by a program, e.g., number and type of clients served, number of policies developed, number of events planned



Logic Model Components Defined

- **Short-term Outcomes:** Short-term and immediate indicators of progress toward a goal, e.g., no positive tests, improved family functioning or school performance. Also known as proximal outcomes.
- **Long-term Outcomes:** Long-term desired program effects, e.g., reducing recidivism. Also known as distal outcomes or impacts.



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Module 2: Evaluation and Performance Measurement

- Suggestions for Evaluating Drug Court Programs
 - Start with well-defined program, a clear purpose for evaluating, and an audience for the results
 - Focus evaluation on most relevant questions—need, concept/theory, implementation, outcome, impact, and/or cost-effectiveness



The Evaluation Process

- Formative Evaluation
- Process Evaluation
- Outcome Evaluation
- Impact Evaluation
- Cost Efficiency Analysis



Suggestions for Evaluating Drug Court Programs

- Assess implementation – many programs fail because they are poorly implemented
- Conduct impact evaluations only when the program merits it and the practical context is amenable to it
- Performance measurement and outcome monitoring provide useful feedback to any program



Distinguishing Performance Measurement from Outcome and Impact Evaluation

- Unlike Outcome and Impact evaluations, performance measurement is not concerned with questions of “attribution”
- Performance Measures
 - Carefully chosen set of indicators of drug court performance in critical areas of functioning
 - “Dashboard” Analogy
 - Provide performance information in a timely and ongoing basis
 - Reflect program objectives



Theory of Performance Measurement

- Basic concept of performance measurement involves:
 1. Planning and meeting established operating goals/standards for intended outcomes
 2. Detecting deviations from planned levels of performance
 3. Restoring performance to the planned levels or achieving new levels of performance



Recommendations for Performance Measurement

- Retention
- Sobriety
- Recidivism (in-program)
- Units of Service



BJA Performance Measures, FY 2009

- Implementation Grants
 - Percent of program participants who re-offend while participating in drug court
 - Percent of participants who exhibit a reduction in substance use during the reporting period
 - Percent of participants successfully graduating from the drug court program
 - Termination rate of drug court participants



BJA Performance Measures, FY 2009

- Enhancement Grants (Additional Services)
 - Percent increase in units of services (additional or secondary drug court activity that address needs of drug court clients)
 - Percent increase in service provided to participant



BJA Performance Measures, FY 2009

- Enhancement Grants (Training)
 - Percent increase in participant satisfaction with training
 - Percent increase in knowledge of subject matter as a result of training



BJA Performance Measures, FY 2009

- Enhancement Grants (Data collection/MIS)
 - Percent increase in drug court automation
 - Percent increase in staff trained on data collection/MIS



BJA Performance Measures, FY 2009

- Statewide Grants (information tracking, dissemination, and clearinghouse activities)
 - Percent increase in compilation of resources and information dissemination to drug courts throughout state



BJA Performance Measures, FY 2009

- Statewide Grants (Training and Technical Assistance)
 - Percent increase in statewide training or technical assistance for drug courts
 - Percent increase in participants' satisfaction with training



BJA Performance Measures, FY 2009

- Statewide Grants (Data collection/MIS)
 - Percent increase in MIS evaluation capability



Individual Statewide Performance Measurement Systems Developed with NCSC Assistance

- Efforts funded by BJA Drug Court Technical Assistance Grant
- Principal Measurement Domains
 - Accountability
 - Social Functioning
 - Processing



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Module 3: Process Evaluation

- A case study, non-experimental, descriptive, and investigative
- Generally uses simple statistical measures such as percentages, measures of central tendency (mean, median, and mode), and cross-tabulation analysis



Process Evaluation

- Addresses whether the program was implemented and is providing services as intended
- Allows an assessment of the reasons for successful or unsuccessful performance, and provides information for potential replication



Process Evaluation

- Focuses on how a program was implemented and operates
 - Program History: Identifies procedures undertaken and the decisions made in developing the program including key actors
 - Program Operation: Describes how the program operates, the services it delivers, and the functions it carries out. Provides an analysis of output data
 - Target Population: Provides a “snapshot” of the program and its participants that is compared to the intended target population



Drug Court Process Evaluation Questions (Roehl and Guertin, 2000)

1. How was the program developed?
 - Who was involved?
 - What were their aims and agendas?
 - How and why were initial decisions governing the policies and procedures of the drug court made?



Drug Court Process Evaluation Questions (Cont.) (Roehl and Guertin, 2000)

2. What are the policies and procedures of the drug court?
- How have they changed over time and why?
 - Are there policies governing:
 - The criteria used to determine eligibility?
 - When referrals to drug court occur?
 - Program requirements?
 - When sanctions may be applied?
 - Is there a drug court manual?



Drug Court Process Evaluation Questions (Cont.) (Roehl and Guertin, 2000)

3. What is the size and nature of the total population eligible for drug court?
 - How are screening and referral functions carried out?
 - How many people are referred to drug court?
 - How many are accepted, and why are some rejected?



Drug Court Process Evaluation Questions (Cont.)

(Roehl and Guertin, 2000)

4. What are the characteristics of the program participants, in terms of their:
 - demographics,
 - substance abuse problems,
 - and criminal histories?

5. What are the characteristics of available treatment interventions? What treatment and other services are participants getting?



Drug Court Process Evaluation Questions (Cont.) (Roehl and Guertin, 2000)

6. What:

- are the major case processing steps?
- happens to participants in drug court?
- is their treatment regimen?
- is the means for monitoring progress (e.g., urinalysis test results, point accumulations)?
- happens when there is back sliding or a relapse?



Drug Court Process Evaluation Questions (Cont.)

(Roehl and Guertin, 2000)

7. Who are the staff and what are their responsibilities?
8. What is the drug court's annual budget and sources of funds?
9. How is the drug court governed?
 - Is there an advisory board or governing task force; if so, who serves and what are their responsibilities?
 - What are the roles of the judge, prosecutor, and defense counsel?



Drug Court Process Evaluation Questions (Cont.)

(Roehl and Guertin, 2000)

10. What is the extent of coordination and collaboration with other agencies such as probation, parole, treatment providers, social services, etc. What information is routinely made available to and/or required by these agencies?
11. What local conditions (court caseloads, community attitudes, local culture, etc.) affect the drug court?



Drug Court Process Evaluation Questions (Cont.)

(Roehl and Guertin, 2000)

12. How long do participants stay in the drug court?
 - Who drops out, at what point, and why?
 - How many participants (number and percentage, BJA), with what characteristics, graduate from drug court?

13. What percentage of drug court clients are arrested while in the program and what are their charges (BJA)?



Drug Court Process Evaluation Questions (Cont.) (Roehl and Guertin, 2000)

- Process evaluations should address compliance with Office of Justice Programs' 10 Key Components of a Drug Court
- Performance benchmarks are provided for each key component



Key Component #3

Eligible participants are identified early and promptly placed in the drug court program

Performance Benchmarks:

1. Eligibility screening is based on established written criteria. Criminal justice officials or others (e.g., pretrial services, probation, TASC) are designated to screen cases and identify potential drug court participants



Key Component #3 (Cont.)

Eligible participants are identified early and promptly placed in the drug court program

Performance Benchmarks:

2. Eligible participants for drug court are promptly advised about program requirements and the relative merits of participating
3. Trained professionals screen drug court-eligible individuals for alcohol or drug problems and suitability for treatment



Key Component #3 (Cont.)

Eligible participants are identified early and promptly placed in the drug court program

Performance Benchmarks:

4. Initial appearance before the drug court judge occurs immediately after arrest or apprehension to ensure program participation
5. Court requires that eligible participants enroll in AOD treatment services immediately



Using the Results of the Process Evaluation

- Have all the intended services been provided?
- Have the services been provided as intended?
- What services not currently provided should be added to the program?



Using the Results of the Process Evaluation

- Did the program reach the intended “target” population?
- Did the program widen the “net” of defendants who were supervised by the court or who received criminal justice sanctions (targeting)?
- What problems were encountered in program implementation, operation, and performance?
- How were these problems resolved?



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Module 4: Outcome and Impact Evaluation

- Examples of outcomes and impacts:
 - Recidivism
 - Abstinence
 - Academic achievements
 - Employment status
 - Pro-social family/peer association
 - Housing situation improvements
 - Gains in income
 - Gains in health status
 - Financial management skills
 - Parenting skills



Distinguish “Outcome” from “Impact”

- Outcome: Status of recipients or target social conditions after exposure to the program
- Impact: The value added by the program-benefits that would not have occurred without the program



Requisite Conditions for Outcome and Impact Evaluation

- Well-defined program with a plausible logic for expected outcomes
- Well-implemented program that delivers a sufficient “dose” of service to reasonably expect effects



Important Considerations for an Outcome and Impact Evaluation

- Outcome and Impact measures should reflect program goals and objectives
- Impact analysis design
 - How will comparison groups be selected?
 - How will the design control for confounding explanations of results?



Determining Impact is Much More Difficult than Measuring Outcomes

Counterfactual Condition

- Assessing impact (value-added) inherently involves comparison of outcomes when:
 - the program is present
 - with when it is absent
 - the latter being contrary to fact



Requisite Conditions for Impact Evaluation

- Clearly defined and policy-relevant counterfactual condition, e.g.,
 - Practice as usual
 - No treatment
 - Placebo treatment
 - All but the critical ingredient treatment



Rigor in Impact Evaluation Requires Internal Validity

- Internal validity is the accurate, unbiased estimation of a program effect – the difference in outcome with and without the program
- Experimental and quasi-experimental research designs have been developed for the specific purpose of estimating effects with internal validity

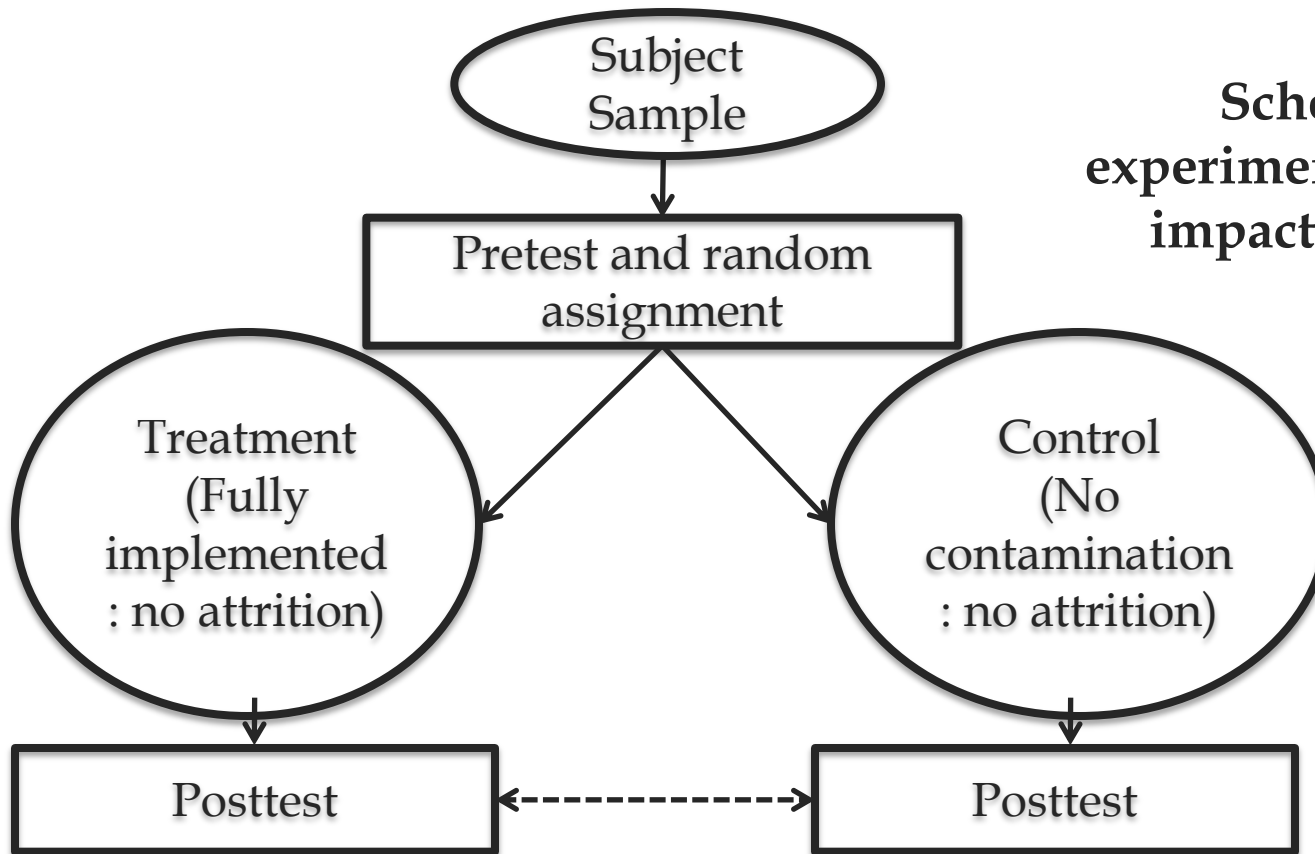


Different Designs have Different Inherent Vulnerabilities to Their Internal Validity

- All designs can be compromised by poor execution or external influences
- Randomized controlled experiments are widely recognized as the least vulnerable when well conducted
- Next best designs are more vulnerable even when well constructed



Experimental Design for Impact Assessment



Schematic of
experimental design for
impact assessment

Intervention effect



Important Considerations for Impact Evaluation

- Quasi-experimental design
 - Select based on eligibility criteria before program is in operation
 - Select retroactively based on eligibility criteria
 - Select from similar jurisdiction
 - Select from opt-outs
- Amount of time for follow-up



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Module 5: Cost-Efficiency Analysis

- Two types
 - Cost- Benefit Analysis
 - Cos-Effectiveness Analysis



Components of a Cost-Benefit Analysis

- A formal way of adding up the advantages and disadvantages of doing one thing as opposed to doing something else
- Compares present values of all benefits less those of related costs when benefits can be valued in dollars the same way as costs
- Performed in order to select the alternative that maximizes the benefits of a program



Components of a Cost-Benefit Analysis (Cont.)

- **Potential Benefits**

- Savings in jail and prison costs

- Jail and prison costs are generally calculated at a minimum of \$40/day (not counting construction costs) though they are frequently higher

- Per day costs of drug court program participation and services generally range between \$8 - \$14

- Avoid overall criminal justice system costs associated with arrests, prosecution, adjudication, and disposition of drug cases



Components of a Cost-Benefit Analysis (Cont.)

- Average # of post-graduation arrests for year after graduation = .22, for comparison group = 1.22
- Averted cost of police protection = \$762
- Savings, comparing 18 graduates with 18 comparison group members:
- $(18 \times 1.22 \times \$762) - (18 \times .22 \times \$762) = \$16,459 - \$3,018 = \$13,441$



Components of a Cost-Benefit Analysis (Cont.)

- **Potential Benefits**
 - Avoid public health costs associated with drug-related physical illnesses
 - Emergency room care
 - Hospitalization
 - Outpatient medical services
 - Medication



Components of a Cost-Benefit Analysis (Cont.)

- **Potential Benefits**

- Avoid costs associated with drug-related mortality and premature death
- Social welfare costs
 - Foster care and other support of family members
- Avoid costs related to lost productivity
 - Workplace accidents
 - Unemployment



Components of a Cost-Benefit Analysis (Cont.)

- **Potential Benefits**

- Avoid costs related to the specific impacts of drug use

- Fetal alcohol syndrome and drug exposed infants
 - IV drug user related AIDS
 - Hepatitis
 - Drug-related TB

- Avoid costs incurred by crime victims, persons involved in auto accidents, etc.



5 Elements of Cost-Benefit Analysis

1. Add up monetary benefits
2. Subtract the costs
3. Determine whether the resulting “bottom line,” expressed in dollar terms, is positive or negative
4. Compare the estimated bottom line to the returns available from other options
5. Test the riskiness of the conclusions (“sensitivity analysis”)



Cost-Effectiveness Analysis

- Relates the cost of a given alternative to specific measures of program outcomes, e.g., dollars per crime averted
- Especially useful when program objectives are singular or sufficiently related so that the relationship between objectives is clear, valuing in dollars is impossible or impractical, or there is a dominant measure of effectiveness (e.g., recidivism)



Cost-Effectiveness Analysis Example

- Example (Roehl and Guertin, 2002), using data from Monterey County, revisited
- Compare drug court to alternative, incarceration
- Average cost of a drug court graduate
 - Assume average length of stay in both alternatives is 1.5 years or about 548 days
 - Cost per day of drug court = \$14
 - Estimated Cost of drug court per graduate = (548 days) X (\$14 per day) = \$7,672



Cost-Effectiveness Analysis Example

- Average cost of incarceration
 - Cost per day of incarceration = \$40
 - Estimated Cost of comparison group member = (548 days) X (\$40 per day) = \$21,920
- Cost per arrest
 - Drug court: (.22 arrests per participant) / (\$7,672 per participant) = .0000286 arrests per dollar spent on drug court or 28.6 arrests for every million dollars spent on drug court



Cost-Effectiveness Analysis Example

- Cost per arrest
 - Incarceration: $(1.22 \text{ arrests per participant}) / (\$21,920 \text{ per participant}) = .0000556 \text{ arrests per dollar spent on drug court}$ or 55.6 arrests for every million dollars spent on incarceration
 - Every million dollars spent on drug court results in 55.6 – 28.6 or 30 fewer arrests (after release) than a million dollars spent on incarceration



Advantages and Disadvantages of Cost Efficiency Analysis

- Easy for policy-makers to understand
- Benefits often difficult to quantify
- Requires specialized skills
- Easy to “fudge”

