

## Cost Effectiveness and Cost Analysis

Program Evaluation: An Introduction  
Chapter 10

### How do you know which program/treatment is best?

- Empirical evidence in literature or agency reports.
- Prefer stronger empirical evidence (studies with randomization, control group, pre/post tests, strong sampling)
- WHAT ABOUT COST?
- Managed care, government officials and policy makers pressure social work services to know and reveal costs.
- “The obvious choice is the treatment or treatments that offer the most health benefit ...while using the lowest cost in dollars or resources” (p. 102, Lombard et al. 1998)

Example- Multi-Systemic Therapy Treatment of Substance Abusing or Dependent Adolescent Offenders: Costs of Reducing Incarceration, Inpatient, and Residential Placement

- Schoenwald et al. (1996)

MST	50% more costly	\$1,695 (per youth)	46% less days incarceration	64% less days in residential and psychiatric placements	\$48,200 savings related to incarceration
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### JOB PREP vs. WORK NOW Example

- Two programs serving metro clients who have never worked full time (drop outs, functionally illiterate, recovering drug addicts, criminal history)
- Teach work preparedness skills, job skills, and provide internships

	Work Now, Inc.	Job Prep, Inc
Total program costs	\$275,00	\$345,000
Graduation rates	64%	40%
Persons employed F/T for one year	48	73
Cost per employed client	\$5,729	\$4,726

### How to do a cost-effectiveness study?

1. Define the program and its outcome indicators  
What are indicators of success?
2. Develop a hypothesis or study question
3. Compute costs  
personnel, facilities, equipment, other expenses

### How to do a cost-effectiveness study?

4. Collect program outcome data
5. Compute program outcomes
6. Compute the cost effectiveness ratio (total program costs/effectiveness indicator)
7. Perform a sensitivity analysis

## Cost-Benefit Analysis

Programs to prevent and treat child abuse and Programs to treat drug abuse

### Monetary Benefits

- Class Brainstorm

### Nonmonetary Benefits

- Class Brainstorm

## Definitions

- **Benefit**- cost saving or return on investment
- "**Value-added**" In economics, the difference between cost of materials and labor to produce a product, and the sale price of a product is the **value added**.
- **Institutional renewal**-rebuilding and changing, restore to freshness, vigor, or perfection
- **Unit costs** - <sup>1</sup> total cost/number of participants <sup>2</sup> total cost/# of successful graduates <sup>3</sup> total costs/contact hour
- **Shadow price** - attempt to reflect the real cost of discounted or donated goods and services
- **Discounting** - reduces /adjusts cost and benefits for tapering off over span of years.

## Nonmonetary Benefits

- Look at pre and post standardized measurement of outcome variable [thus cost-benefit is similar (same) as cost-effectiveness]
- Example - neighborhood pride and satisfaction before and after neighborhood park built. Neighborhood satisfaction moves from 60% to 80%. Cost of park \$250,000.  $\$250,000/20 = \$12,500$

## Cost Benefit Ratio

- Total benefits/ total costs
- Ratio > 1 benefits exceed the costs
- Ratio < 1 cost exceed the benefits
- Example (Buescher et al. 1993): every \$1 spend on WIC the benefit to Medicaid was \$2.91

## MSW's Future Mission

- Though efficiency never has been treated as a first order concept in the social services, it should be. No other idea on the table or on the horizon cuts so directly to the enterprise. No other has the same potential to revitalize the field as it moves into and through the twenty-first century (Pruger and Miller, 1991).

## Conclusion

- "Least costly" must be related to a follow-up time frame for measuring outcomes not just number of services provided.
- Cost accounting pushes for comparison of conventional and alternative ways of providing services. Union MSW's need to be pioneers.
- Ethical issues – will some treatments be considered too expensive based on benefits?
- Can social workers save money that can be used for other services? Union MSW's need the skills necessary to help agencies make monetary decisions.