

Cost-effective correctional treatment

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The evidence is overwhelming — human service-based interventions reduce criminal recidivism; punishment does not. Recently synthesised findings based on over 500 studies spanning five decades of research clearly indicate that any kind of human-service based treatment reduces recidivism on average by 10%.² Moreover, treatment approaches that follow empirically validated principles of effective intervention yield substantially higher reductions ranging from 26% to 40%.³ Clearly, we know what works with certain offenders. Equally important, however, is determining whether or not effective interventions are cost-effective from an economic perspective. The research over the last 10 to 15 years clearly establishes programs that reduce recidivism can generate substantial cost-savings in the long run. Cost savings have typically included reduced criminal justice costs, reduced monetary victim expenses such as forgone wages, medical expenses, property losses, and more recently, intangible victim losses such as reduced pain and suffering and reduced loss of life. Prominent findings from the last 10 to 15 years are highlighted in this article.

Efficiency evaluations, more commonly known as cost-benefit or cost-effectiveness analyses, strive to promote optimal resource allocation. Cost-benefit analyses generate conclusions such as “every dollar spent on program X saves the taxpayer \$10.00 in the long run”. In contrast, cost-effectiveness analyses report the benefits of a given program in substantive rather than monetary terms. Thus, a cost-effectiveness analysis might conclude, “sex offender treatment costs \$12,000 per potential victim saved”.⁴ Research comparing the cost-effectiveness of punishment versus treatment strategies is reviewed followed by a review of specialised treatment programs.

A well-publicized article⁵ from the mid 1980s concluded that prisons are a highly cost-effective means of reducing crime given that every dollar spent on imprisonment generates \$17.00 in tangible returns. However, the article was widely criticised for several theoretical, methodological, and ethical reasons.⁶ Further, contemporary research findings indicate that treatment is a substantially superior alternative.

A recent meta-analytic review⁷ analyzed 108 correctional treatment outcome studies from a cost-benefit perspective. Traditionally, meta-analytic techniques have been used to aggregate the findings of a large number of treatment studies to ascertain

the average impact that treatment has on reducing recidivism. The aforementioned review represents the first attempt at estimating average cost-savings using meta-analytic techniques.

Cost savings were reported for several different treatment categories from two perspectives: the taxpayer and the victim. The taxpayer’s perspective focused exclusively on criminal justice savings (e.g. police, adjudication, corrections) while the victim’s perspective incorporated criminal justice savings as well as monetary victim losses (e.g. medical & mental health care expenses, property damage and losses, reduced future earnings). Intangible victim costs such as pain and suffering and loss of life were excluded. In sum, the review demonstrated that on average, every dollar spent on human-service orientated interventions ($N = 88$) saves the taxpayer approximately \$5.00, and the victim, \$7.00. Conversely, punishment-orientated interventions such as boot camps and intensive supervision programs that rely on expensive strategies such as random curfew checks, electronic monitoring, and urinalysis testing ($N = 20$) yielded substantially lower economic returns ranging from 50¢ to 75¢ for every program dollar spent.

Also notable is a recent article⁸ that conducted a cost-effectiveness comparison of California’s three-strikes law versus early intervention programs. Two of the most promising intervention programs included graduation incentives and parenting skills training. Briefly, graduation-incentive programs financially compensate disadvantaged high school students to encourage their graduation. Alternatively, parenting skills programs involve in-home training for parents with aggressive children. The study estimates that California’s three-strikes law will reduce crime by 21% at an annual increased incarceration cost of 5.5 billion dollars. However, graduation incentive programs coupled with parenting skills training could roughly double the crime reduction rate for 1/5 of the cost, approximately 1 billion dollars.

The literature has also examined the relative cost-savings attributable to specific treatment regimes. For example, cost-savings have been estimated for juvenile offender treatment as well as for a number of adult treatment targets including education and

employment, substance abuse, sexual offending and cognitive-behavioural deficits. The meta-analysis previously mentioned reviewed 21 human-service orientated juvenile offender treatment programs including parent skills training, diversion programs, and aggression replacement training. The results indicated that each juvenile treatment dollar generates between \$7.62 to \$31.40 in future economic returns.

It has also been estimated that one chronic juvenile offender will incur between 1.3 and 1.5 million dollars in criminal justice expenses (20%), intangible victim costs (50%), tangible victim costs (25%), and foregone offender productivity (5%).⁹ This implies that relatively small treatment effects can generate substantial cost savings. For example, a program that costs \$500,000 to treat 100 chronic juvenile offenders would still be deemed cost-effective with a success rate as low as 1%. However, in reality, success rates are substantially higher, particularly for intensive juvenile treatment programs such as multi-systemic therapy (MST). While the meta-analytic review reported that MST generates \$13.45 dollars in return for every dollar invested in the program (based on the 1.3 to 1.5 million dollar estimate), MST could potentially generate \$60.00 in economic returns for every program dollar. This latter estimate is based on the assumption that MST has a 20% success rate. The discrepancy (\$13.45 vs \$60.00) is most likely attributable to the fact that the meta-analytic review excluded intangible victim costs whereas intangible victim costs accounted for 50% of the 1.3 to 1.5 million-dollar estimate.

The efficiency literature has reported that adult offender treatment can be cost-effective. For example, every dollar allocated towards vocational and basic education programs yields cost savings ranging from \$1.71 to \$3.23. Similarly, job search and/or counselling programs generate positive returns ranging from \$2.84 to \$4.00. Conversely, short-term financial assistance and subsidized job placement programs generate break even returns (e.g. 1 dollar spent = 1 dollar gained). As well, adult cognitive-behavioural treatment programs generate economic returns ranging from \$2.54 to \$11.48 for every invested program dollar.¹⁰

The efficiency literature has also given considerable attention to substance abuse treatment. While drug diversion programs have generated modest returns (e.g. \$1.69 to \$2.18 for every program dollar), interventions classified as case management substance abuse programs have actually generated negative returns, whereby every program dollar actually costs the taxpayer 15¢, and the victim 21¢.¹¹ However, more encouraging findings are also available. For example, a recent Canadian study demonstrated that one of the Correctional Service of Canada's core substance abuse treatment programs generated approximately \$2,000 in annual savings per offender.¹² Similarly, research conducted on substance abusers, rather than criminal offenders suggests that for every 100 treated substance abusers, society accrues between 1.4 and 2.2 million dollars in reduce crime-related costs including reduced criminal justice costs, reduced tangible victim losses, reduced intangible victim losses, and reduced forgone offender productivity.¹³

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In terms of sex offender treatment, the literature has produced conflicting results. Three separate cost-benefit analyses conducted in Canada, the United States and Australia have estimated that by treating 100 sex offenders society can potentially accrue between 4 and 7 million dollars in economic gain.¹⁴ In contrast, the meta-analytic study concluded that sex offender treatment

was not cost-effective and reported that every dollar spent on sex offender programming generates 25¢ in economic returns. However, the meta-analytic conclusions were based solely on six studies whereas a more recent endeavour identified 34 sex offender treatment outcome studies.¹⁵ A more comprehensive cost-benefit analysis that incorporates all 34 studies is forthcoming.

In sum, cost benefit analysis relies extensively on uncertain assumptions and at times, less than reliable cost estimates. Further, attributing monetary value to human pain and suffering as well as human life remains controversial. Nonetheless, as the competition for limited resources intensifies, cost-benefit evaluations will undoubtedly play a prominent role in policy development. ■

- ¹ 40 Laurier Avenue West, Ottawa, Ontario K1A 0P9.
- ² Andrews, D.A., Dowden, C. and Gendreau, P. (2000). *Clinically relevant and psychologically informed approaches to reduced re-offending: A meta-analytic study of human service, risk, need, responsivity and other concerns in justice contexts*. Manuscript submitted for publication. See also Lösel, F. (1995). The efficacy of correctional treatment: A review and synthesis of meta-evaluations. In J. McGuire (Ed.), *What works: Reducing Reoffending: Guidelines from Research and Practice*, p. 79-111. Chister: Wiley.
- ³ Andrews, Dowden and Gendreau., 2000. See also Lösel, F. (1996). "Effective correctional programming: What empirical research tells us and what it doesn't". *Forum on Corrections Research*, vol. 8, (3), p. 33-37.
- ⁴ Marshall, W.L. (1992). "The social value of treatment for sexual offenders". *The Canadian Journal of Human Sexuality*, vol. 1, (3), p. 109-114.
- ⁵ Zedlewski, E.W. (1985). When have we punished enough? *Public Administration Review, Special Issue*, Vol. 45, p. 771-779.
- ⁶ Zimring, F.E. and Hawkins, G. (1988). "The new mathematics of imprisonment." *Crime and Delinquency*, vol. 34, (4), p. 425-436. See also Greenberg, D.F. (1990). "The cost-benefit analysis of imprisonment". *Social Justice*, vol. 17, (4), p. 49-75.
- ⁷ Aos, S., Phipps, P., Barnoski, R. and Lieb, R. (1999). *The comparative costs and benefits of programs to reduce crime: A review of national research findings with implications for Washington State*. Document Number 99-05-1202. Washington State Institute for Public Policy.
- ⁸ Greenwood, P.W., Model, K.E., Rydell, C.P. and Chiesa, J. (1996). *Diverting children from a life of crime: Measuring costs and benefits*. RAND: Santa Monica, CA.
- ⁹ Cohen, M. A. (1998). "The monetary value of saving a high-risk youth". *Journal of Quantitative Criminology*, vol. 14, (1), p. 5-33.
- ¹⁰ Aos, Phipps, Barnoski and Lieb. 1999.
- ¹¹ Aos, Phipps, Barnoski and Lieb. 1999.
- ¹² T3 Associates (1999). *An outcome evaluation of CSC substance abuse programs: OSAPP, ALTO, and Choices*. Available from Reintegration Programs, Correctional Service of Canada, 340 Laurier Avenue, Ottawa, ON, K1A 0P9.
- ¹³ Rajkumar, A.S. & French, M.T. (1997). Drug abuse, crime costs, and the economic benefits of treatment. *Journal of Quantitative Criminology*, vol. 13, (3), p. 291-323.
- ¹⁴ Marshall, W.L. (1992). "The social value of treatment for sexual offenders". *The Canadian Journal of Human Sexuality*, vol. 1, (3), p. 109-114. See Prentky, R. and Burgess, A.W. (1990). "Rehabilitation of child molesters: A cost-benefit analysis". *American Journal of Orthopsychiatry*. vol. 60, (1), p. 108-117. See also Donato, R. and Shanahan, M. (1999). "The economics of implementing intensive in-prison sex-offender treatment programs". *Australian Institute of Criminology: Trends and issues in crime and criminal justice*, n, 134, p. 1-6.
- ¹⁵ Hanson, K. (1999, September). *Collaborative database of sex offender treatment outcome*. Paper presented at the Association for the treatment of sexual abusers (ATSA), Lake Buena Vista, FL.

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