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**EVIDENCE-BASED TREATMENT OF CHEMICAL DEPENDENCY,  
MENTAL ILLNESS, AND CO-OCCURRING DISORDERS:  
BENEFITS, COSTS, AND FISCAL IMPACTS  
—INTERIM REPORT—**

Can evidence-based treatment for people with mental health and chemical dependency disorders save money for state and local governments? Viewed more broadly, do total benefits outweigh total costs?

The 2005 Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to examine these ambitious questions. Specifically, our assigned task is to project state and local fiscal savings and other impacts of evidence-based treatment for those with chemical dependency disorders, mental illness, or individuals with both of these conditions (“co-occurring” conditions).

The Legislature required two reports: this interim document and a final report to be presented to the Legislature by June 30, 2006.

This brief interim report does not provide results; rather, it simply summarizes our research approach and the work underway. Comments on this study can be directed to Steve Aos at: [saos@wsipp.wa.gov](mailto:saos@wsipp.wa.gov); 360-586-2740.

**Legislative Direction for the Study**

The Legislature requested this study as part of a much larger bill it passed during 2005: the Omnibus Treatment of Mental and Substance Abuse Disorders Act. A major goal of the Act is to reform how publicly-funded mental health and chemical dependency programs are provided in Washington. In particular, the Legislature found that:

*Persons with mental disorders, chemical dependency disorders, or co-occurring mental and substance abuse disorders are*

**Study Language From 2005 Legislature**

ENGROSSED SECOND SUBSTITUTE  
SENATE BILL 5763, Chapter 504, Laws of  
2005. Sec. 605.

*The Washington state institute for public policy shall study the net short-run and long-run fiscal savings to state and local governments of implementing evidence-based treatment of chemical dependency disorders, mental disorders, and co-occurring mental and substance abuse disorders. The institute shall use the results from its 2004 report entitled "Benefits and Costs of Prevention and Early Intervention Programs for Youth" and its work on effective adult corrections programs to project total fiscal impacts under alternative implementation scenarios. In addition to fiscal outcomes, the institute shall estimate the long-run effects that an evidence-based strategy could have on statewide education, crime, child abuse and neglect, substance abuse, and economic outcomes. The institute shall provide an interim report to the appropriate committees of the legislature by January 1, 2006, and a final report by June 30, 2006.*

The Institute received an appropriation of \$80,000 to conduct the study.

*disproportionately more likely to be confined in a correctional institution, become homeless, become involved with child protective services or involved in a dependency proceeding, or lose those state and federal benefits to which they may be entitled as a result of their disorders.<sup>1</sup>*

Further, the Legislature found that:

*Prior state policy of addressing mental health and chemical dependency in isolation from each other has not been cost-effective and has often resulted in longer-term, more costly treatment that may be less effective over time.<sup>2</sup>*

Among the several actions adopted in the omnibus 2005 Act to address these general concerns, the Legislature indicated its intention to:

*Improve treatment outcomes by shifting treatment, where possible, to evidence-based, research-based, and consensus-based treatment practices and by removing barriers to the use of those practices.<sup>3</sup>*

Within this larger context of the overall Act, the specific legislative language directing the Institute's study is shown in the sidebar on Page 1. In brief, the legislation requires the Institute to study the net short-run and long-run fiscal savings to state and local governments, as well as other long-term benefits, if evidence-based prevention and intervention options are implemented in Washington for persons with mental illness and/or chemical dependency disorders. That is, could an evidence-based policy for people with these conditions make economic sense? And, if so, what is the magnitude of fiscal and total benefits?

Separate from the study described in this report, the omnibus Act also created pilot programs to test several new implementation approaches initiated with the legislation. The Institute was designated as the evaluator of these pilots (see the sidebar on page 3 for a description of that study).

## Research Approach

This interim report provides a synopsis of our approach, summarizing four main research tasks currently underway at the Institute to complete this project.

Details of our methods are available in other Institute publications. The language directing this study refers to previous Institute reports on the benefits and costs of prevention and treatment programs. In recent years the

Institute has developed a set of analytical procedures to estimate the costs and benefits of various types of governmental programs.<sup>4</sup>

✓ **Task 1: Determine if there are evidence-based treatment options.** What do we know about the effectiveness of different prevention or intervention treatment options for people with mental illness and/or chemical dependency disorders? More specifically, has *rigorous* research demonstrated that certain specific approaches have—in the real world—the ability to improve the outcomes of individuals who receive publicly funded mental health and substance abuse services? Further, do the benefits of these alternative approaches outweigh the costs?

**What Does “Evidence-Based” Mean?** To address these questions, we are currently conducting a systematic review of all rigorous evaluations of these types of treatment programs conducted in recent years in the United States. In a systematic review, the results of *all* rigorous evaluation studies are analyzed to determine if, on average, it can be stated scientifically that a program achieves a desired outcome.

A systematic review is distinct from a so-called “narrative” review of the literature where a writer selectively cites studies to tell a story about a topic such as substance abuse prevention. Both types of reviews are useful, but systematic reviews are generally regarded as more rigorous and, because they assess all available studies and employ statistical hypotheses tests, they have less potential for drawing biased or inaccurate conclusions about the research literature. Systematic reviews are being used with increased frequency in medicine, education, criminal justice, and many other policy areas.<sup>5</sup>

A primary purpose of our study is to take advantage of all rigorous evaluations and, thereby, learn whether there are conclusions that can allow policymakers in Washington to improve this state's mental health and chemical dependency treatment system. It is important to note, however, that few of the evaluations in our review are specifically of Washington State programs; rather, almost all are of programs conducted elsewhere.

Our systematic reviews of empirical research only include “rigorous” evaluation studies. To be considered rigorous, an evaluation must include, at a minimum, a non-treatment comparison group that is well-matched to the treatment group. We limit our reviews to high quality studies because of the greater confidence that can be placed in their cause-and-effect statements regarding the program or programs studied. In our judgment, studies that use weaker research methods cannot provide this assurance and thus we exclude them.

In recent years, researchers have developed a set of statistical tools to facilitate systematic reviews of the evidence. The set of procedures is called “meta-analysis,” and we are employing that methodology in this study.<sup>6</sup> In the Technical Appendix to a recent Institute report, we list the specific coding rules and statistical formulas used to conduct these types of analyses; technical readers can find a full description of our meta-analytic methods in that report.<sup>7</sup>

✓ **Task 2: Estimate the benefits and costs of each evidence-based treatment option.** After identifying rigorously evaluated treatment options in Task 1, we then proceed to estimate each option’s benefits and costs using the same methods we have employed in our earlier reviews of criminal justice and other social programs.<sup>8</sup> We estimate the monetary value of any program that has an evidence-based ability to reduce crime, reduce substance abuse, improve education outcomes, reduce child abuse and neglect, or reduce teen pregnancy. For this project, we are also extending our previous benefit-cost model to include several other outcomes typically measured in evaluations of programs for persons with mental illness and/or chemical dependency disorders. These can include emergency room visits, other medical costs, and other long-term benefits of reductions in mental illness and chemical dependency identified by the literature.

As in all our previous benefit-cost analyses, impacts are estimated from two different perspectives: first, the benefits that accrue specifically to program participants, and then the benefits that also accrue to non-participants. An example of a participant benefit might be the increased economic

earnings stemming from enhanced labor productivity if the treatment program is shown to improve job skills. A non-participant benefit might be the reduced level of taxes needed to fund the criminal justice system if the evidence-based treatment program reduces crime. The perspectives of both participants and non-participants are necessary to provide a full description of fiscal- and non-fiscal benefits and costs.

✓ **Task 3: Calculate the impact these evidence-based approaches could have on state and local governmental costs.** A third major task for this project involves estimating the degree to which any identified evidence-based approach could actually be implemented in Washington. That is, if Tasks 1 and 2 identify particular evidence-based programs that would be cost-effective for state and local government as well as generate other benefits,

#### **Additional WSIPP Study From 2005 Omnibus Treatment of Mental and Substance Abuse Disorders Act**

##### **Crisis Responder Pilot Evaluation**

The same Act that directed the study described in this report also instructed the Department of Social and Health Services to establish two pilot sites where specially trained crisis responders will investigate and have the authority to detain individuals considered “gravely disabled or presenting a likelihood of serious harm” due to mental illness, substance abuse, or both. The integration of mental health and substance abuse related crisis investigations and the establishment of secure detoxification facilities at the pilot sites are expected to improve the efficiency of evaluation and treatment and result in better outcomes for those involuntarily detained under this new law. The pilots are expected to begin operations in March 2006. The Legislature directed the Washington State Institute for Public Policy to determine if the pilots cost-effectively improve client mental health/chemical dependency evaluation, treatment, and outcomes. A preliminary report by the Institute is due to the Legislature in December 2007. The final report is to be completed by September 2008.

For more information on this related project, contact Jim Mayfield at the Institute: [mayfield@wsipp.wa.gov](mailto:mayfield@wsipp.wa.gov); 360-586-2783.

then what *total* impact could the program have in Washington under alternative implementation scenarios?

Tasks 1 and 2 provide “per-unit” estimates of a particular program’s effectiveness. For example, *per program participant*, we may conclude from Tasks 1 and 2 that a program can produce benefits that outweigh costs. The goal of Task 3, on the other hand, is to estimate *total* potential benefits based on the number of people in Washington who could realistically take advantage of a particular cost-beneficial evidence-based program or practice. To complete Task 3, we will compile information from a number of sources to estimate how many people in Washington with mental illness and/or chemical dependency disorders could be expected to be eligible for and participate in a particular publicly-funded evidence-based program. In order to calculate a *net* improvement for Washington, these estimates will be made relative to the estimated number of people in Washington who are not already receiving an appropriate service.

✓ **Task 4: Identify “alternative implementation scenarios” of cost-beneficial choices for consideration by the Legislature.** As indicated in the study direction, when Tasks 1, 2, and 3 are complete, we will assemble a range of “alternative implementation scenarios” for legislative consideration. Properly constructed, this information will allow policymakers to consider a variety of options for achieving the overall goal of the project: cost-beneficial and evidence-based treatments for persons with mental illness and/or chemical dependency disorders that save state and local taxpayers money and provide other benefits to Washington.

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#### **Endnotes**

<sup>1</sup> Engrossed Second Substitute Senate Bill 5763, Chapter 504, Laws of 2005. Sec. 101.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid, Sec. 101(3).

<sup>4</sup> Relevant documents available on the Institute’s website, <http://www.wsipp.wa.gov>, include:

(a) S. Aos, M. Miller, and E. Drake, *Evidence-Based Adult Corrections Programs*. Olympia: Washington State Institute for Public Policy, January 2006.

(b) S. Aos, R. Lieb, J. Mayfield, M. Miller, and A. Pennucci, *Benefits and Costs of Prevention and Early Intervention Programs for Youth*. Olympia: Washington State Institute for Public Policy, September 2004.

(c) S. Aos, P. Phipps, R. Barnoski, and R. Lieb, *The Comparative Costs and Benefits of Programs to Reduce Crime*. Olympia: Washington State Institute for Public Policy, May 2001.

<sup>5</sup> An international effort aimed at organizing systematic reviews is the Campbell Collaborative, a non-profit organization that supports systematic reviews in the social, behavioral, and educational arenas. See: <http://www.campbellcollaboration.org>.

<sup>6</sup> We follow the meta-analytic methods described in: M. W. Lipsey and D. Wilson (2001), *Practical meta-analysis*. Thousand Oaks: Sage Publications.

<sup>7</sup> S. Aos, M. Miller, E. Drake, *Evidence-Based Adult Corrections Programs*.

<sup>8</sup> See references in endnote 4.

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Washington State  
Institute for  
Public Policy

The Washington State Legislature created the Washington State Institute for Public Policy in 1983. A Board of Directors—representing the legislature, the governor, and public universities—governs the Institute and guides the development of all activities. The Institute’s mission is to carry out practical research, at legislative direction, on issues of importance to Washington State.