Washington State
Institute for
Public Policy

110 Fifth Avenue Southeast, Suite 214 • PO Box 40999 • Olympia, WA 98504-0999 • (360) 586-2677 • www.wsipp.wa.gov

July 12, 2004

BENEFITS AND COSTS OF PREVENTION AND EARLY INTERVENTION PROGRAMS FOR YOUTH

Does prevention pay? Can an ounce of prevention avoid (at least) an ounce of cure?

More specifically for public policy purposes, is there credible scientific evidence that for each dollar a legislature spends on "research-based" prevention or early intervention programs for youth, more than a dollar's worth of benefits will be generated? If so, what are the policy options that offer taxpayers the best return on their dollar?

These are among the ambitious questions the 2003 Washington State Legislature assigned the Washington State Institute for Public Policy (Institute).[1] This report describes our findings and provides an overview of how we conducted the analysis.[2] An Appendix, published separately, contains a full description of our results and methods.[3]

Summary of Findings. Our principal conclusion is that, as of July 2004, some prevention and early intervention programs for youth can give taxpayers a good return on their dollar. That is, there is credible evidence that certain well-implemented programs can achieve significantly more benefits than costs. Taxpayers will be better off if investments are made in these successful research-based programs.

This good news, however, must be tempered in three important ways. First, we found evidence that some prevention and early intervention programs fail to generate more benefits than costs. Our research indicates that money spent on these unsuccessful research-based programs is an inefficient use of taxpayer money.

Our second caveat concerns the "marketplace" for rigorously researched prevention and early intervention programs: it is a young market, but it is evolving quickly. Most high-quality evaluations have been completed only in the last two decades, and many new rigorous studies will become available in the years ahead. As the evaluation evidence accumulates, and as the market matures, our relative ranking of programs can be expected to change.

Third, while Washington has taken significant steps in recent years, many currently funded prevention and early intervention programs in the state have not been rigorously evaluated. Thus, for many programs in Washington, there is insufficient evidence at this time to determine whether they produce positive or negative returns for taxpayers.

The main policy implications of these findings are straightforward and analogous to any sound investment strategy. To ensure the best possible return for Washington taxpayers, the Legislature and Governor should:

- Invest in research-proven "blue chip" prevention and early intervention programs. Most of Washington's prevention portfolio should be spent on these proven programs.
- Avoid spending money on programs where there is little evidence of program effectiveness. Shift these funds into successful programs.
- Like any business, keep abreast of the latest research-based findings from around the United States to determine where there are opportunities to use taxpayer dollars wisely. The ability to distinguish a successful from an unsuccessful research-based program requires specialized knowledge.
- Embark on a strategy to evaluate Washington's currently funded programs to determine if benefits exceed costs.
- Achieving "real-world" success with prevention and early intervention programs is difficult; therefore, close attention must be paid to quality control and adherence to original program designs. Successful prevention strategies require more effort than just picking the right program.
- Consider developing a strategy to encourage local government investment in research-proven programs.

[1] ESSB 5404 Sec. 608(2), Chapter 25, Laws of 2003.

[2] Suggested study citation: Steve Aos, Roxanne Lieb, Jim Mayfield, Marna Miller, Annie Pennucci. (2004) Benefits and costs of prevention and early intervention programs for youth. Olympia: Washington State Institute for Public Policy.

[3] The Appendix is available from the Institute's website: <http://www.wsipp.wa.gov/rptfiles/04-07-3901a.pdf>.

I. Legislative Direction

For this review of "research-based" programs, the Legislature indicated seven outcomes of interest. The Legislature is interested in identifying prevention and early intervention programs that have a demonstrated ability to:

(1) Reduce crime;

(2) Lower substance abuse;

(3) Improve educational outcomes such as test scores and graduation rates;

(4) Decrease teen pregnancy;

(5) Reduce teen suicide attempts;

(6) Lower child abuse or neglect; and

(7) Reduce domestic violence.[4]

In addition to requesting a review of what works to achieve these outcomes, the Legislature required that the study include an economic analysis. The "bottom-line" measures that we produce are our best estimates of the benefits and costs of each program.[5]

Why study benefits and costs? In recent years, the Institute has conducted economic reviews of criminal justice programs and policies.[6] In these previous studies, we found that some criminal justice programs produce positive returns to taxpayers while others fail to generate more benefits than costs. The Legislature and Governor have used this benefit-cost information to reduce funding for some criminal justice policies and programs with poor returns and to direct some funds to programs with better returns to the taxpayer.

This project provides a more comprehensive view of outcomes than our earlier studies allowed. In our previous work, we limited our focus to programs that attempt to affect criminal outcomes. In the present study, we take a step forward to examine and monetize education outcomes, substance abuse outcomes, teen pregnancy outcomes, and child abuse and neglect outcomes, in addition to criminal outcomes. This effort produces a more complete accounting of options to increase the efficiency with which taxpayer dollars are spent, and this information may be useful in subsequent budget and policy decision making.

As part of this project, the Legislature also directed the Institute to investigate ways in which local government can be encouraged to develop economically attractive prevention and early intervention programs. We were asked to examine this question: When there is evidence that local actions can save state government money, how can some of the state benefits contribute to the efforts of local government?[7]

Our final assignment concerns quality control. Recent research indicates that without quality control, prevention and intervention programs developed in carefully controlled settings often fail to achieve the same results in the "real world."[8] After selecting programs with research evidence, the next step is ensuring that the implementation include a quality review component. The Institute was directed to develop recommendations on this topic.[9]

II. Study Methods

In the Appendix to this report, we provide a detailed description of the research methods employed in this study. Here, we summarize our approach.

There are two basic steps to this study. First, we quantify the scientific research literature on prevention and early intervention programs that addresses the seven outcomes. The goal of this stage of the analysis is to determine if there is credible evidence that some types of programs work. To consider a program for inclusion in our analysis, we require that it have scientific evidence from at least one rigorous evaluation that measures

---

[4] Specifically, the legislative language directs the Institute to *"…review research assessing the effectiveness of prevention and early intervention programs…to reduce the at-risk behaviors for children and youth…."* The seven outcomes referenced in the legislative direction are in RCW 70.190.010(4).

[5] The legislative assignment for the benefit-cost analysis is to *"…identify specific research-proven programs that produce a positive return on the dollar compared to the costs of the program."*

[6] See, S. Aos, P. Phipps, R. Barnoski, and R. Lieb. (2001) *The comparative costs and benefits of programs to reduce crime*; S. Aos, R. Barnoski. (2002) *The juvenile justice system in Washington state: Recommendations to improve cost-effectiveness*; and S. Aos. (2003) *The criminal justice system in Washington state: Incarceration rates, taxpayer costs, crime rates, and prison economics*. The three documents are published by the Washington State Institute for Public Policy and available from <http://www.wsipp.wa.gov>.

[7] The legislative direction for the Institute is to *"…develop recommendations for potential state legislation that encourages local government investment in research-proven prevention and early intervention programs by reimbursing local governments for a portion of the savings that accrue to the state as the result of local investments in such programs."*

[8] See R. Barnoski. (2004) *Outcome evaluation of Washington state's research-based programs for juvenile offenders*. Olympia: Washington State Institute for Public Policy. <http://www.wsipp.wa.gov/rptfiles/04-01-1201.pdf>; and D.S. Elliott, S. Mihalic. (2004) "Issues in disseminating and replicating effective prevention programs." Prevention Science 5(1): 47.

[9] The legislative assignment for the Institute is to *"…develop criteria designed to ensure quality implementation and program fidelity of research-proven programs in the state."*

one of the seven outcomes, and that it be a program capable of application or replication in the "real world."[10] These two requirements eliminated numerous evaluations of prevention and early intervention programs from our review.

We conducted the literature review by gathering evaluations of programs conducted, generally in the United States, since 1970. We searched electronic research databases and located study references in narrative and systematic reviews conducted by other researchers, assembling and reviewing a collection of over 3,500 documents.

Some programs we consider in this review are specific "off-the-shelf" programs. The Nurse Family Partnership program[11] is an example of a specific "real-world" program that has a precise approach to program implementation. Other estimates are for more generalized program groupings, such as early childhood education, boot camps, and "wraparound" services.

After screening the evaluation studies for research design quality, we compute the average effect of each program on the seven outcomes of interest.[12]

We then proceed to the second basic step in this study where we estimate the comparative benefits and costs of each research-based program. These measures are our best estimates about the "bottom-line" economics of each approach. To conduct this analysis, we constructed a benefit-cost model to assign monetary values to any observed changes in education, crime, substance abuse, child abuse and neglect, teen pregnancy, and public assistance outcomes.

As was the case in our earlier benefit-cost work, we consistently make a number of cautious assumptions. As mentioned, we require that evaluations have a scientifically valid research design. Even for studies that pass this test, we penalize the results from those with a less-than-randomized research approach, since there is evidence that studies with weaker research designs tend to show more favorable results.[13] We also discount findings from evaluations in highly controlled research settings, since we have found that "real-world" programs often produce reduced levels of outcomes.[14] We also use a number of other conservative adjustments, discussed in the Appendix, in an effort to isolate the causal relationships between a prevention program and the monetary valuation of the outcomes of interest.

As a result of these cautious assumptions, the benefit-cost ratios we report will usually be smaller than the values from studies undertaken by program developers or advocates. Across all the outcomes and programs we consider, however, we have attempted to be as internally consistent as possible. That is, our bottom-line estimates have been developed so that a benefit-cost ratio for one program can be compared directly to that of another program. By striving for internal consistency, our benefit-cost estimates are not only our best estimates of the economics of the programs, they can be compared to each other on a relative basis, as well.

III. Study Limitations

Before summarizing our findings, it is important to mention the limitations of this study.

Many readers may be surprised that certain well-known prevention programs are not listed in this report. There are six reasons why our current study does not include the full range of prevention and intervention programs.

First, we limit our focus to the seven outcomes assigned by the Legislature for this study: crime, substance abuse, educational outcomes, teen pregnancy, teenage suicide attempts, child abuse or neglect, and domestic violence. The field of prevention and early intervention is vast and extends beyond these seven outcomes. Some areas of prevention are, therefore, beyond our assigned scope. For example, we were not asked to assess prevention programs related strictly to public health outcomes such as low birth weight, child injury, immunizations, and obesity; thus, much of the public health area is not covered in the present study. Our review could be extended to include these other areas of prevention.

Second, as mentioned, we exclude some prevention programs because their research designs do not meet our minimum standards. For example, we were unable to locate studies that meet our design requirements for programs such as

[10] To assess whether a program affects an outcome, we require that an evaluation have a well-constructed comparison group. The comparison group can be randomly assigned or non-experimentally assigned if credible evidence is presented for group comparability. We do not include studies with a single group, pre-post research design.

[11] <http://www.nccfc.org/nurseFamilyPartnership.cfm>.

[12] All unadjusted effect size calculations are carried out following the methods described in M. W. Lipsey and D. B. Wilson. (2001) *Practical meta-analysis*. Thousand Oaks: Sage Publications.

[13] M. W. Lipsey. (2003) "Those confounded moderators in meta-analysis: Good, bad, and ugly." *The Annals of the American Academy of Political and Social Science* 587(1): 69-81.

[14] R. Barnoski. (2004) *Outcome evaluation of Washington state's research-based programs for juvenile offenders*. Olympia: Washington State Institute for Public Policy, available from <http://www.wsipp.wa.gov/rptfiles/04-01-1201.pdf>.

crisis/respite nurseries. When research incorporating well-constructed comparison groups is published on programs excluded for this reason, our benefit-cost analysis can be updated.

Third, some studies are excluded because, at present, we cannot monetize their measured outcomes. We found evaluations with good research designs, but they measured outcomes we do not directly value in our benefit-cost analysis, such as the Child Behavior Checklist or intentions and attitudes. Although these outcomes may be significant, it is not clear whether, or the degree to which, changes in these measurements translate into less substantiated abuse or neglect, less crime, better education outcomes, or any of the other outcomes specified by the legislation for this study. Unless these programs also include the outcomes that we can monetize, they are not included in this analysis. Future research may enable us to monetize and include some of these other outcomes.[15] The "Incredible Years" is an example of a prevention program with outcomes we cannot currently monetize and, therefore, we do not include it in this benefit-cost study.[16]

Fourth, we had to exclude some areas of prevention and early intervention because of resource and time constraints. In particular, we were unable to complete work on domestic violence and school violence, including bullying.[17] We also were unable to finish work on the effectiveness of alcohol and tobacco taxes on reducing the adverse consequences of these substances. Future versions of this report can incorporate these important topics.

Fifth, we exclude some studies from our benefit-cost analysis when we cannot estimate the costs of the program.

Finally, in our previous work on benefits and costs, we included programs that target adult criminal offenders. In this review, we have not included these programs because they are not prevention or early intervention programs, per se. In subsequent versions of this study, we intend to include an updated benefit-cost analysis of programs for adult offenders.

IV. Study Results: Estimates of Benefits and Costs

We summarize our bottom-line findings in Table 1 on page 6. For each type of prevention and early intervention program we review, Table 1 includes information on total benefits and total costs. We also show the benefit-cost ratio and the net benefit (benefits minus costs) for each program. This last column on Table 1 is most significant: it indicates the net economic advantage or disadvantage per youth. While column three shows benefit-cost ratios, we include these measures only because many people like this statistic. Benefit-cost ratios, however, can be misleading when comparing programs. Therefore, we recommend focusing on the net benefit per participant in column 4 of Table 1.

In reviewing the economic results, several findings emerge:

- Investments in effective programs for juvenile offenders have the highest net benefit. Such programs yield from $1,900 to $31,200 per youth.
- Some forms of home visiting programs that target high-risk and/or low-income mothers and children are also effective, returning from $6,200 to $17,200 per youth.
- Early childhood education for low income 3- and 4-year-olds and some youth development programs provide very attractive returns on investment.
- While their net benefits are relatively low, many substance use prevention programs for youth are cost effective, because the programs are relatively inexpensive.
- Few programs are effective at reducing teenage pregnancy.
- Each program area we examined has interventions that are not cost effective. Some prevention and early intervention programs are very expensive and produce few benefits.

[15] As Alan Kazdin observed, "…demonstrating that children return to normative levels of symptoms on a standardized measure (e.g., Child Behavior Checklist) does not necessarily mean that a genuine difference is evident in everyday life or that functioning is palpably improved. It might; there is just little evidence to support the view that it does.… Much more work is needed to permit interpretation of measures of clinical significance currently in use." A. E. Kazdin. (2003) "Problem solving skills training and parent management training for conduct disorder." In A. E. Kazdin and J. R. Weisz, eds., *Evidence-based psychotherapies for children and adolescents.* New York: Guilford, pp. 241-262.

[16] <http://www.incredibleyears.com>.

[17] On these topics, recent meta-analyses are a valuable resource to readers. See, S. J. Wilson, M. W. Lipsey , and J. H. Derzon. (2003) "The effects of school-based intervention programs on aggressive behavior: A meta-analysis." *Journal of Consulting and Clinical Psychology* 71: 136-149; J. C. Babcock, C. E. Green, and C. Robie. (2004) "Does batterers' treatment work? A meta-analytic review of domestic violence treatment." *Clinical Psychology Review* 23: 1023-1053; and K. M. Kitzmann, N. K. Gaylor, A. R. Holt, and E. D. Kenny. (2003) "Child witness to domestic violence: A meta-analytic review." *Journal of Consulting and Clinical Psychology* 71(2): 339-352.

V. Study Results: State-Local Funding and Quality Control

The legislation authorizing this study assigned the Institute the task of recommending state-local funding mechanisms for prevention programs. In particular, we were directed to:

> *…develop recommendations for potential state legislation that encourages local government investment in research-proven prevention and early intervention programs by reimbursing local governments for a portion of the savings that accrue to the state as the result of local investments in such programs.*

In this study, we identify several programs that, if properly implemented, are likely to reduce taxpayer and other costs in the future. Some of the potential avoided taxpayer costs would be paid with state taxes while some would be paid with local taxes. For example, when a prevention program is successful in lowering future crime rates, effective state budgeting will ensure that there will be fewer state dollars spent for prisons, while diligent local budgeting will ensure that there will be fewer local dollars spent on police and local jails.[18] Similarly, if a prevention program reduces child abuse and neglect caseloads, efficacious state budgeting will ensure that there will be fewer state dollars spent on the child welfare system. These reductions in future taxpayer costs are some of the significant benefits of successful prevention programs.

Many programs we examined can be implemented by either the state or local governments. If local governments decide to undertake the programs, some of the expected taxpayer savings will not accrue directly to the local jurisdiction; rather, some of the savings will flow to the state system. Again, a prime example is of prevention programs that reduce crime: many of the benefits flow to the state system, not the local system. Thus, it has been argued, the incentives for local governments to pursue effective prevention programs do not align with the flow of benefits. It has been observed that unless this incentive system is fixed, there will be under-investment in effective prevention programs on the part of local government.

The task assigned the Institute is to suggest ways that legislation could address this imbalance in the incentive system. We did not attempt to draft legislative language. Rather, our recommendations take the form of a set of principles we believe should be incorporated in any legislation. The principles are put forward with one question in mind: What incentive system will help ensure that Washington taxpayers will be better off if research-based prevention programs are put in place in the state?

To explore this issue, the Institute convened a workgroup, in May 2004, of state and local representatives.[19] We received many helpful comments and hope our suggestions here reflect the intelligent points raised. Our final recommendations, of course, are our own judgment and are not necessarily the views of those who attended the meeting.

We believe that at least the following four points need to be considered to address the issue raised in our legislative assignment.

- Selecting a state entity to develop a blue chip prevention program list.
- Developing program selection criteria: What programs are worthy of investment?
- Determining methods for a reimbursement arrangement.
- Monitoring quality control and program fidelity, and conducting outcome evaluations.

Selecting a State Entity to Develop a Blue Chip Prevention Program List.

We think it would be a mistake for the state to simply accept any prevention proposal from local government. Rather, we believe the state should determine a set of research-based prevention and early intervention programs that would be eligible for reimbursement. To do this, legislation should designate an existing or new entity, comprised of appropriate representatives of state government, that would have the official responsibility to develop a list of approved research-based prevention and early intervention programs, and to conduct other transactions necessary to ensure that Washington taxpayers get a good return on the selected prevention and early intervention approaches.

[18] The Appendix to this report shows the clear historical connection between criminal justice workloads in Washington and related state and local criminal justice costs. Both state and local governments have records of budgeting to workloads: when crime and criminal justice workloads increase (or decrease), real public spending on state and local criminal justice resources increases (or decreases).

[19] State legislative fiscal and policy staff, and representatives from the Office of Financial Management, Department of Health, Joint Legislative Audit and Review Committee, Family Policy Council, Childrens' Home Society, DSHS's Children's Administration, Washington State Juvenile Court Administrators, DSHS's Juvenile Rehabilitation Administration, DSHS's Division of Alcohol and Substance Abuse, and the city of Seattle.

Table 1
Summary of Benefits and Costs (2003 Dollars)

Estimates as of July 12, 2004	Measured Benefits and Costs Per Youth			
	Benefits (1)	Costs (2)	Benefits per Dollar of Cost (3)	Benefits Minus Costs (4)
Pre-Kindergarten Education Programs				
Early Childhood Education for Low Income 3- and 4-Year-Olds*	$17,202	$7,301	$2.36	**$9,901**
HIPPY (Home Instruction Program for Preschool Youngsters)	$3,313	$1,837	$1.80	**$1,476**
Parents as Teachers	$4,300	$3,500	$1.23	**$800**
Parent-Child Home Program	$0	$3,890	$0.00	**-$3,890**
Even Start	$0	$4,863	$0.00	**-$4,863**
Early Head Start	$4,768	$20,972	$0.23	**-$16,203**
Child Welfare / Home Visitation Programs				
Nurse Family Partnership for Low Income Women	$26,298	$9,118	$2.88	**$17,180**
Home Visiting Programs for At-risk Mothers and Children*	$11,089	$4,892	$2.27	**$6,197**
Parent-Child Interaction Therapy	$4,724	$1,296	$3.64	**$3,427**
System of Care/Wraparound Programs*	$0	$1,914	$0.00	**-$1,914**
Family Preservation Services Programs*	$0	$2,531	$0.00	**-$2,531**
Healthy Families America	$2,318	$6,888	$0.34	**-$4,569**
Comprehensive Child Development Program	-$9	$37,388	$0.00	**-$37,397**
The Infant Health and Development Program	$0	$49,021	$0.00	**-$49,021**
Youth Development Programs				
Seattle Social Development Project	$14,426	$4,590	$3.14	**$9,837**
Guiding Good Choices (formerly PDFY)	$7,605	$687	$11.07	**$6,918**
Strengthening Families Program for Parents and Youth 10-14	$6,656	$851	$7.82	**$5,805**
Child Development Project	$448	$16	$28.42	**$432**
Good Behavior Game	$204	$8	$25.92	**$196**
CASASTART (Striving Together to Achieve Rewarding Tomorrows)	$4,949	$5,559	$0.89	**-$610**
Mentoring Programs				
Big Brothers/Big Sisters	$4,058	$4,010	$1.01	**$48**
Quantum Opportunities Project	$10,900	$25,921	$0.42	**-$15,022**
Youth Substance Abuse Prevention Programs				
Adolescent Transitions Program	$2,420	$482	$5.02	**$1,938**
Project Northland	$1,575	$152	$10.39	**$1,423**
Family Matters	$1,247	$156	$8.02	**$1,092**
Life Skills Training (LST)	$746	$29	$25.61	**$717**
Project STAR (Students Taught Awareness and Resistance)	$856	$162	$5.29	**$694**
Minnesota Smoking Prevention Program	$511	$5	$102.29	**$506**
Other Social Influence/Skills Building Subtance Prevention Programs*	$492	$7	$70.34	**$485**
Project Towards No Tobacco Use (TNT)	$279	$5	$55.84	**$274**
All Stars	$169	$49	$3.43	**$120**
Project ALERT (Adolescent Learning Exp. in Resistance Training)	$58	$3	$18.02	**$54**
STARS for Families (Start Taking Alcohol Risks Seriously)	$0	$18	$0.00	**-$18**
D.A.R.E. (Drug Abuse Resistance Education)	$0	$99	$0.00	**-$99**

Source: S. Aos, R. Lieb, J. Mayfield, M. Miller, A. Pennucci. (2004) Benefits and Costs of Prevention and Early Intervention Programs for Youth. Olympia: Washington State Institute for Public Policy, available at <http://www.wsipp.wa.gov/rptfiles/04-07-3901.pdf>.

Meta-analytic results, references, and detailed benefit-cost calculations are presented in the Appendix to this report, available at <http://www.wsipp.wa.gov/rptfiles/04-07-3901a.pdf>. The economic values on this table are estimates of present-valued benefits and costs of each program from the societal perspective. The benefits are estimated for six types of outcomes: crime, education, substance abuse, child abuse and neglect, teen pregnancy, and public assistance, for each program with statistically significant results for any of these outcomes. Many of these programs have achieved outcomes in addition to those for which we are currently able to estimate monetary benefits.

* Programs marked with an asterisk are the average effects for a group of programs; programs without an asterisk refer to individual programs.

Table 1 (Continued)
Summary of Benefits and Costs (2003 Dollars)

Estimates as of July 12, 2004	Measured Benefits and Costs Per Youth			
	Benefits (1)	Costs (2)	Benefits per Dollar of Cost (3)	Benefits Minus Costs (4)
Teen Pregnancy Prevention Programs				
Teen Outreach Program	$801	$620	$1.29	**$181**
Programs for Teen Parents*	$1,772	$1,763	$1.00	**$8**
Reducing the Risk Program	$0	$13	$0.00	**-$13**
Postponing Sexual Involvement Program	-$45	$9	-$5.07	**-$54**
Teen Talk	$0	$81	$0.00	**-$81**
School-Based Clinics for Pregnancy Prevention*	$0	$805	$0.00	**-$805**
Adolescent Sibling Pregnancy Prevention Project	$709	$3,350	$0.21	**-$2,641**
Children's Aid Society-Carrera Project	$2,409	$11,501	$0.21	**-$9,093**
Juvenile Offender Programs				
Dialectical Behavior Therapy (in Washington)	$32,087	$843	$38.05	**$31,243**
Multidimensional Treatment Foster Care (v. regular group care)	$26,748	$2,459	$10.88	**$24,290**
Adolescent Diversion Project	$19,713	$1,777	$11.09	**$17,936**
Mentoring (in the juvenile justice system)*	$23,143	$6,471	$3.58	**$16,672**
Functional Family Therapy (in Washington)	$16,455	$2,140	$7.69	**$14,315**
Other Family-Based Therapy Programs for Juvenile Offenders*	$14,061	$1,620	$8.68	**$12,441**
Multi-Systemic Therapy (MST)	$14,996	$5,681	$2.64	**$9,316**
Aggression Replacement Training (in Washington)	$9,564	$759	$12.60	**$8,805**
Juvenile Boot Camps*	$0	-$8,474	$0.00	**$8,474**
Juvenile Offender Interagency Coordination Programs*	$8,659	$559	$15.48	**$8,100**
Diversion Progs. with Services (v. regular juvenile court processing)*	$2,272	$408	$5.58	**$1,865**
Coordination of Services	$0	$408	$0.00	**-$408**
Juvenile Intensive Probation Supervision Programs*	$0	$1,482	$0.00	**-$1,482**
Juvenile Intensive Parole (in Washington)	$0	$5,992	$0.00	**-$5,992**
Scared Straight	-$11,002	$54	-$203.51	**-$11,056**
Regular Parole (v. not having parole)	-$10,379	$2,098	-$4.95	**-$12,478**
Other National Programs				
Functional Family Therapy (excluding Washington)	$28,356	$2,140	$13.25	**$26,216**
Aggression Replacement Training (excluding Washington)	$15,606	$759	$20.56	**$14,846**
Juvenile Intensive Parole Supervision (excluding Washington)*	$0	$5,992	$0.00	**-$5,992**

Source: S. Aos, R. Lieb, J. Mayfield, M. Miller, A. Pennucci. (2004) Benefits and Costs of Prevention and Early Intervention Programs for Youth. Olympia: Washington State Institute for Public Policy, available at <http://www.wsipp.wa.gov/rptfiles/04-07-3901.pdf>.

Meta-analytic results, references, and detailed benefit-cost calculations are presented in the Appendix to this report, available at <http://www.wsipp.wa.gov/rptfiles/04-07-3901a.pdf>. The economic values on this table are estimates of present-valued benefits and costs of each program from the societal perspective. The benefits are estimated for six types of outcomes: crime, education, substance abuse, child abuse and neglect, teen pregnancy, and public assistance, for each program with statistically significant results for any of these outcomes. Many of these programs have achieved outcomes in addition to those for which we are currently able to estimate monetary benefits.

* Programs marked with an asterisk are the average effects for a group of programs; programs without an asterisk refer to individual programs.

Developing Program Selection Criteria: What Programs Are Worthy of Investment?

Our study's main finding is that *some* prevention and early intervention programs for youth can give taxpayers a good return on their dollar. We also found evidence, however, that other prevention and early intervention programs fail to generate more benefits than costs. Our research indicates that money spent on these unsuccessful research-based programs is an inefficient use of taxpayer money. Thus, first and foremost, any legislation needs to recognize that not all prevention works and that choosing the right program is the critical first step.

Unfortunately—and we cannot stress this point enough—it is not easy to determine successful from unsuccessful "research-based" programs. There are many shades of quality when it comes to program evaluation research. Interpreting research evidence requires a considerable degree of impartial expertise, in the same way that forecasting investment opportunities for public retirement funds requires specialized knowledge. Program advocates usually claim to have research indicating "evidence-based" effectiveness. We have found, however, that the studies on which these claims are made can overstate the benefits of a program—once adjustments are made for the quality of the research design on which the program evaluation rests. Deciding what is causation rather than mere correlation requires unbiased analytical expertise and experience.

In our study, we have attempted to develop, for Washington State, a complete set of analytical tools with which we believe successful research-based prevention and early intervention programs can be selected. The Appendix to this study describes these benefit-cost methods in detail. We recommend this set of tools be the starting point for helping to identify those programs that produce the best returns for taxpayers. With this technical information in hand, the legislatively designated state entity could then adopt a list of successful research-proven prevention and early intervention programs. Once developed, local government could choose from this list if it decides to participate. In this way, the state would be assured that only successful research-based prevention and early intervention programs were being funded, and local government leaders would have the option of selecting from an array of programs that best fit their local communities.

We also suggest that the state entity use a technical working group comprised of executive and legislative staff members. There are some existing models to emulate for a successful workgroup process; the state entity may wish to follow the example of the Caseload Forecast Council in this regard.

Determining Methods for a Reimbursement Arrangement.

Another responsibility for the state entity could be to develop an incentive reimbursement methodology for review by the Legislature and Governor. The purposes of the reimbursement formula would be to ensure that (a) the state receives high-quality implementation of the research-based programs by local government, and (b) local government receives a portion of the benefits that would otherwise accrue to the state as a result of implementation of a successful prevention or early intervention program.

There are a number of factors, some quite technical, that the state entity would need to consider in developing a reimbursement formula. These include the following:

- Matching Requirements. As our economic model indicates, state and local governments can save money when certain research-based prevention and early intervention programs are successfully implemented. The state entity could be directed to consider this factor and require that a local government's contribution, in the form of a matching requirement, be set in proportion to its share of the expected savings. In the model we developed for this study, there is some information on the state/local split on benefits, but additional information would need to be created to make this matching factor operational.
- Limits on the Use of State Dollars. The state entity could be given direction to put safeguards in place to ensure that any benefits flowing to local government would only be used for the selected research-based programs and that the funds would not supplant any other funds.
- Type and Scope of Avoided Costs to Be Included in the Formula. The legislation could give direction to the state entity to limit the scope of avoided costs to certain specific state government costs. For example, avoided crime could be selected as a prevention outcome of interest, and the avoided costs could be determined by limiting the estimated state

savings to the budgets of the Juvenile Rehabilitation Administration and Department of Corrections. Similarly, some prevention programs affect child welfare costs; these costs could be specifically designated to be included in a funding formula. Other cost issues would include how avoided costs are defined (operating or capital costs) and whether marginal or average cost estimates would be used to determine the avoided costs.

- Timing of Payments. In developing a reimbursement formula, the state entity would also need to consider a number of issues related to when the prevention or intervention program achieved the result and when the costs would have otherwise been incurred by the state. For example, if a program reduces future crime rates, the state savings from this reduction will occur in the future. There are a couple of options that could be used to reflect this difference. A standard option would be for the state entity to adopt a discount rate that would be used to compute a present-valued sum of future state avoided costs. Another option would be for the state entity to adopt a cut-off point (a set number of years in the future) beyond which the state would not consider reimbursing avoided costs to the local government unit.

- Small Local Government Considerations. Many units of local government, both counties and cities, are small. Some prevention programs are difficult for small jurisdictions to implement. The legislation may wish to establish ways small local governments can apply jointly to implement the approved research-based prevention and early intervention strategies.

Monitoring Quality Control and Program Fidelity and Conducting Outcome Evaluations.

In our formal evaluation of Washington's effort at implementing research-proven programs for juvenile offenders, one important lesson was learned. The programs work and they produce more benefits than costs—but only when implemented rigorously with close attention to quality control and adherence to the original design of the program. Without quality control, the programs do not work.[20]

This lesson is so central that we think it should be part of any legislative direction to implement a state-local reimbursement arrangement or, for that matter, any attempt by the state to implement research-based programs in the state system. Therefore, our recommendations regarding quality assurance concern all efforts to implement research-based prevention and early intervention programs. To ensure program integrity, any contract between the local government and the state should include provisions for the monitoring of program fidelity through a state entity. In 2003, the Institute issued a report on this topic with detailed recommendations on the elements necessary for effective monitoring and program evaluation. We refer interested readers to that document.[21]

[20] R. Barnoski. (2004) *Outcome evaluation of Washington state's research-based programs for juvenile offenders*. Olympia: Washington State Institute for Public Policy, available from <http://www.wsipp.wa.gov/rptfiles/04-01-1201.pdf>.

[21] R. Barnoski, S. Aos, and R. Lieb. (2003) *Recommended quality control standards: Washington state research-based juvenile offender programs*. Olympia: Washington State Institute for Public Policy, available from <http://www.wsipp.wa.gov/rptfiles/JuvQA.pdf>.

Brief Description of the Programs in Our Review

PROGRAMS WITH BENEFIT-COST ESTIMATES. The programs identified on Table 1 are described below. These are programs where we measure effectiveness in terms of costs and benefits.[22] Note, however that some programs produce additional benefits for which we are currently unable to estimate a dollar value.

Adolescent Diversion Project[23] stems from research experiments conducted in the 1970s and 1980s where youth were diverted from the juvenile court to prevent being labeled as "delinquent." Program "change agents" (usually college students) work with youth in their environment to provide community resources and initiate behavioral change. Change agents are trained in a behavioral model (contracting, with rewards written into actual contracts between youth and other significant persons in the youth's environment) and to become advocates for community resources. Youth and change agents are matched, whenever possible, on race and gender.

Adolescent Sibling Pregnancy Prevention Program[24] was founded in California to prevent pregnancy among adolescents with a pregnant or parenting teenage sibling, a group identified at high risk of early pregnancy. The intervention is delivered by non-profit social service agencies, school districts, and public health departments to youth 11 to 17 years old. There is no prescribed intervention except for a once-a-month face-to-face meeting with the youth and case manager; most locations offer a variety of activities.

Adolescent Transitions Program (ATP)[25] is a middle and high school-based program that focuses on parenting skills and combines universal, selective, and indicated approaches to prevention. The program seeks to improve parenting skills and inform parents about risks associated with problem behavior and substance use. The program also provides assessment, professional support, and other services for families at risk.

Aggression Replacement Training (ART)[26] (excluding Washington). This collection of studies was conducted outside Washington State, but uses the same approach to ART described below.

Aggression Replacement Training (ART)[27] (in Washington) is a 10-week, 30-hour intervention administered to groups of 8 to 12 juvenile offenders three times per week. The program relies on repetitive learning techniques to teach participants to control impulsiveness and anger and use more appropriate behaviors. In addition, guided group discussion is used to correct anti-social thinking. This analysis concerns programs in Washington.

All Stars[28] is a school- or community-based program to prevent risky behavior in youth 11 to 15 years old. In 22 to 29 sessions delivered over two years, the program attempts to foster positive personal characteristics of youth and reduce substance use, violence, and premature sexual activity.

Big Brothers/Big Sisters[29] provides one-on-one mentoring for youth in single-parent families. Trained community volunteers are matched with youth aged 5 to 18; they spend time together two to four times each month for a year, on average. The goal of Big Brothers/Big Sisters is to develop stable and supportive relationships between at-risk youth and caring adults.

CASASTART (Striving Together to Achieve Rewarding Tomorrows),[30] formerly known as Children at Risk, targets youth aged 11 to 13 in high-risk neighborhoods. Using case management, after-school activities, and law enforcement, the program attempts to decrease individual, family, and community risk factors while promoting positive behavior such as school performance and prosocial activities.

---

[22] The Appendix to this report provides details for the study references, effect size calculations, and benefit-cost results for each listing, available from <http://www.wsipp.wa.gov/rptfiles/04-07-3901a.pdf>.
[23] <http://www.msu.edu/course/psy/371/psy371.html>.
[24] <http://www.dhs.ca.gov/org/pcfh/mchb/programs/asppp/asppfacts.htm>.
[25] <http://cfc.uoregon.edu/atp.htm>.
[26] *Ibid*.
[27] <http://www.uscart.org/new.htm>.
[28] <http://www.tanglewood.net>.
[29] <http://www.bbbsa.org>.
[30] <http://www.casacolumbia.org>.

Child Development Project[31] is designed to build students' academic skills and sense of school community. It includes a reading and community-building program, called Caring School Community (CSC), to prevent problem behaviors. CSC is designed to foster a sense of belonging and improve connections among students, educators, and parents.

Children's Aid Society—Carrera Project[32] provides after-school activities five days a week for teens 13 and older. Program activities include Job Club (students receive stipends and employment experience), academic assistance (available every day), classes in family life and sexuality, an arts component, and individual sports one could continue throughout life. In addition, the program provides mental health care, medical care, and full dental care.

Comprehensive Child Development Program was a national demonstration project (21 sites) for disadvantaged new parents. Home visitors provided case management and early childhood education (ECE), starting before the child's first birthday and extending to the child's fifth birthday. Biweekly home visits were the primary means of delivering case management and ECE. The program also served to broker services for families.

Coordination of Services provides an educational program to low-risk juvenile offenders and their parents. The goals of this program are to describe the consequences of continued delinquent behavior, stimulate goal setting, review the strengths of the youth and family, and explain what resources are available for helping to achieve a positive pro-social future for the youth.

D.A.R.E. (Drug Abuse Resistance Education)[33] is a school-based drug prevention program delivered to youth during the last year of elementary school. The program uses a trained, uniformed law enforcement officer to teach students how to resist pressure to use drugs and provides information on the consequences of drug use, decision-making skills, and alternatives to drug use. The D.A.R.E. curriculum is currently being revised and re-evaluated.

Dialectical Behavior Therapy[34] (in Washington) is a comprehensive cognitive-behavioral treatment for individuals with complex and difficult-to-treat mental disorders. Originally developed by Marsha Linehan at the University of Washington to treat chronically suicidal individuals, this program has since been adapted for youth who have difficulty regulating their emotions. It operates in one of Washington State's juvenile offender institutions. The program focuses on four functions: (1) enhancing a youth's behavioral skills to handle difficult situations, (2) motivating the youth to change dysfunctional behaviors, (3) ensuring the new skills are used in daily life, and (4) training and consultation to improve the counselor's skills.

Diversion Programs with Services (versus regular juvenile court processing) are programs typically designed for low-risk, first-time juvenile offenders who would otherwise have their cases handled formally in the juvenile court. These programs typically have citizen accountability boards with counseling services provided by social service agencies.

Early Childhood Education for Low Income Three- and Four-Year-Olds. These enhanced preschool experiences are designed for low income three- and four-year-old children. Each program uses different educational approaches in an attempt to increase student success. Some programs are small-scale pilot studies and some are widespread programs such as the federally-funded Head Start program.

Early Head Start[35] is a federally funded program for low-income women who are pregnant or families with a child younger than 24 months old. Families may receive services until the child is three years old. Early Head Start is not prescriptive; programs may offer home-visit services, center-based services, or a combination. In 2002, this program served 55,000 families in 664 communities.

---

[31] <http://www.devstu.org/cdp/index.html>.
[32] <http://www.stopteenpregnancy.com>.
[33] <http://www.dare.com/home/default.asp>.
[34] <http://www.crest.it/Versione-Inglese/DBT/dbtengli.htm>.
[35] <http://www.ehsnrc.org>.

Even Start[36] receives about half its funding from the U.S. Department of Education. The goal of the program is to improve the literacy of children and their parents through (1) early childhood education, (2) parenting education, (3) adult education, and (4) parent-child joint literacy activities. Eligibility requirements include having a child in the family under 8 years old and a low income adult in need of adult education services. In some of the programs, parenting education and adult education services are provided during home visits. In 2000-2001, 855 projects served 32,000 families.

Family Matters[37] is a family-focused program to prevent tobacco and alcohol use among 12- to 14-year-old youth. The program is delivered through a series of booklets mailed to the home and follow-up telephone calls from health educators. The booklets are intended to motivate participation in the program and encourage and help families think about characteristics associated with adolescent substance use.

Family Preservation Services Programs[38] are short-term, home-based crisis intervention services that emphasize placement prevention. The original program, Homebuilders, was developed in 1974 in Tacoma, Washington. The program emphasizes contact with the family within 24 hours of the crisis, staff accessibility round the clock, small caseload sizes, service duration of four to six weeks, and provision of intensive, concrete services and counseling.

Functional Family Therapy[39] (excluding Washington). This collection of studies was conducted outside Washington State, but uses the same approach to FFT described below.

Functional Family Therapy[40] (in Washington) is a structured family-based intervention that works to enhance protective factors and reduce risk factors in the family. FFT has three-phases. The first phase is designed to motivate the family toward change; the second phase teaches the family how to change a specific critical problem identified in the first phase; and the final phase helps the family generalize their problem-solving skills. FFT programs are operating in Washington State, principally through the juvenile courts.

Good Behavior Game[41] is a classroom management strategy designed to improve aggressive/disruptive classroom behavior and prevent later criminality. The program is universal and can be applied to general populations of early elementary school children.

Guiding Good Choices[42] (formerly PDFY) is a family-focused program designed to improve parenting skills. The five-session program for families with 6th-graders improves parenting techniques and family bonding and teaches children resistance skills.

Healthy Families America[43] is a network of programs that grew out of the Hawaii Healthy Start program. At-risk mothers are identified and enrolled either during pregnancy or shortly after the birth of a child. The intervention involves home visits by trained paraprofessionals who provide information on parenting and child development, parenting classes, and case management.

HIPPY (Home Instruction Program for Preschool Youngsters)[44] is designed for families with 3-year-olds whose parents have a limited education. This program teaches parents how to teach their children and make their home more conducive to child learning. At the biweekly home visits, parents receive books and toys, and the home visitor instructs parents in the use of the educational materials. The program continues until the child completes kindergarten.

Home Visiting Programs for At-risk Mothers and Children focus on mothers considered to be at risk for parenting problems, based on factors such as maternal age, marital status and education, low household income, lack of social supports, or in some programs, mothers testing positive for drugs at the child's birth. Depending on the program, the content of the home visits consist of instruction in child development and health, referrals for service, or social and emotional support. Some programs provide additional services, such as preschool.

---

[36] <http://www.ed.gov/programs/evenstartformula/index.html>.
[37] <http://www.sph.unc.edu/familymatters/Program_materials.htm>.
[38] <http://www.nfpn.org>.
[39] *Ibid*.
[40] <http://www.fftinc.com>.
[41] <http://hazelden.org>. Program description from the Colorado Blueprints website <http://www.colorado.edu/cspv/blueprints/promising/programs/BPP01.html>.
[42] <http://www.channing-bete.com/positiveyouth/pages/FTC/FTC-GGC.html>.
[43] <http://www.healthyfamiliesamerica.org>.
[44] <http://www.hippyusa.org.>

Infant Health and Development Program[45] was an eight-site clinical trial of a comprehensive early intervention for premature, low birth weight infants. The intervention began when infants were discharged from the neonatal nursery and continued until children were 36 months old. It provided pediatric care and follow-up; home visits providing information on child health and development; child attendance at a child development center five days each week, beginning at 12 months of age; and, after infants were 12 months old, bimonthly parent group meetings.

Juvenile Boot Camps are intended to apply the discipline and structure of a military-style environment to offenders as a means of increasing rehabilitation. This approach has been used with both adults and juveniles; here, we examined applications toward juvenile offenders.

Juvenile Intensive Parole Supervision (excluding Washington). After sentencing or following a commitment to a juvenile institution, youth are often placed on parole. Numerous programs aim to put the youth on the right track during this period through more intensive services and supervision than normally offered.

Juvenile Intensive Parole (in Washington).[46] When serious juvenile offenders are released from a juvenile institution in Washington State, they are subject to intensive parole conditions that include services and extra supervision/monitoring.

Juvenile Intensive Probation Supervision Programs. After sentencing or following a commitment to a juvenile institution, youth are often placed on probation. Numerous programs aim to put the youth on the right track during this period through more intensive services and supervision than normally offered.

Juvenile Offender Interagency Coordination Programs. We found four evaluations of programs for juvenile offenders where services in the community were coordinated among several agencies. Sometimes called "wraparound services," this approach is intended to allow more individualized services, as well as more efficient resource allocation.

Life Skills Training (LST)[47] is a school-based classroom intervention to prevent and reduce the use of tobacco, alcohol, and marijuana. Teachers deliver the program to middle/junior high school students in 30 sessions over three years. Students in the program are taught general self-management and social skills and skills related to avoiding drug use.

Mentoring (in the juvenile justice system). Three juvenile justice mentoring programs were reviewed for this study. Washington State's Juvenile Rehabilitation Administration's mentoring program[48] for juvenile offenders uses community volunteers to serve as trusted adults who assist Seattle youths transitioning from a JRA facility back into the community. Similarly, the "citizen volunteer" mentor program reported by Moore (1987)[49] uses community volunteers to serve as mentors for young male offenders on probation for one year. The Michigan-based Adolescent Diversion Project (ADP)[50] offers mentoring as an alternative to adjudication for youths about to become formally involved with the juvenile justice system. College students serve as mentors in the program.

Minnesota Smoking Prevention Program[51] is a school-based tobacco prevention curriculum designed for students in grades 4 through 8. The program helps adolescents learn why people smoke, to resist peer pressure, and to develop their own reasons for avoiding tobacco use. The program consists of six 45- to 50-minute class sessions led by teachers and peers.

Multidimensional Treatment Foster Care[52] (MTFC) is an alternative to group or residential treatment, incarceration, and hospitalization for adolescents with chronic antisocial behavior, emotional disturbance, and delinquency. Community families are recruited, trained, and closely supervised to provide MTFC-placed adolescents with treatment and intensive supervision at home, in school, and in the community. MTFC emphasizes clear and consistent limits with follow-through on consequences, positive reinforcement for appropriate behavior, a relationship with a mentoring adult, and separation from delinquent peers.

---

[45] <http://www.childtrends.org/Lifecourse/programs/InfantHealthDev.htm>.
[46] <http://www.wsipp.wa.gov/rptfiles/JuvParoleIntense.pdf>.
[47] <http://www.lifeskillstraining.com>.
[48] <http://www.wsipp.wa.gov/rptfiles/JRA_mentor.pdf>.
[49] R. H. Moore. (1987) "Effectiveness of citizen volunteers functioning as counselors for high-risk young male offenders." Psychological Reports 61(3): 823-830.
[50] <http://www.msu.edu/course/psy/371/psy371.html>.
[51] <http://www.hazelden.org>.
[52] <http://www.colorado.edu/cspv/publications/factsheets/blueprints/FS-BPM08.html>.

Multi-Systemic Therapy (MST)[53] is an intervention for youth that focuses on improving the family's capacity to overcome the known causes of delinquency. Its goals are to promote parents' ability to monitor and discipline their children and replace deviant peer relationships with pro-social friendships. Trained MST therapists, working in teams consisting of one Ph.D. clinician and three or four clinicians with masters' degrees, have a caseload of four to six families. The intervention typically lasts between three and six months. MST, Inc., in Charleston, South Carolina, trains and clinically supervises all MST therapists.

Nurse Family Partnership for Low Income Women[54] provides intensive visitation by nurses during a woman's pregnancy and the first two years after birth; the program was developed by Dr. David Olds. The goal is to promote the child's development and provide support and instructive parenting skills to the parents. The program is designed to serve low-income, at-risk pregnant women bearing their first child.

Other Family-Based Therapy Programs for Juvenile Offenders. We found six evaluations of programs for juvenile offenders that employ a family-based approach to counseling, somewhat similar to the approaches taken in Multi-Systemic Therapy and Functional Family Therapy, as described earlier. These programs are not identical, but share a common approach of working with both the youth and his or her family, and thus are grouped for the purpose of this analysis.

Other Social Influence/Skills Building Substance Prevention Programs include a mix of programs designed to help youth understand the social pressures that influence substance use decisions; how to resist pressures to use tobacco, alcohol, and drugs; and how to improve their decision-making abilities. These are primarily school-based programs that may also include information about the short- and long-term consequences of substance use and other health-related information.

Parents as Teachers[55] is a home visiting program for parents and children with a main goal of having healthy children ready to learn by the time they go to school. Parents are visited monthly by parent educators with a minimum of some college education. Visits typically begin during the mother's pregnancy and may continue until the child enters kindergarten.

Parent-Child Home Program[56] (formerly Mother-Child Home Program) is targeted at children 24- to 30-months old whose parents have a limited education. The program involves biweekly visits by a toy demonstrator over a period of two years. Each week, the visitor brings a new toy or book, and demonstrates ways the parents can engage the child with the toy or encourages the parent to read to the child.

Parent-Child Interaction Therapy[57] aims to restructure the parent-child relationship and provide the child with a secure attachment to the parent. Parents are treated with their children, skills are behaviorally defined, and all skills are directly coached and practiced in parent-child sessions. Therapists observe parent-child interactions through a one-way mirror and coach the parent using a radio earphone. Live coaching and monitoring of skill acquisition are cornerstones of the program.

Postponing Sexual Involvement Program[58] is a two-stage program for 8th-grade students. The program consists of five classes on human sexuality taught by teachers, followed by five classes on refusal skills training taught by trained peer educators (11th- and 12th-grade students).

---

[53] <http://www.mstservices.com>.
[54] <http://www.nccfc.org/nurseFamilyPartnership.cfm>. The results reported here are for the program as delivered by nurses; an evaluation of the program delivered by paraprofessionals produced smaller effects that rarely achieved statistical significance.
[55] <http://www.patnc.org>.
[56] <http://www.parent-child.org/home>.
[57] <http://www.pcit.org>.
[58] <http://www.advocatesforyouth.org/programsthatwork/2psi.htm>.

Programs for Teen Parents are designed to help young mothers avoid subsequent teenage births and to continue their educations. Program approaches differ; some are affiliated with local health clinics, some operate in public schools, and still others are community-based.

Project ALERT (Adolescent Learning Experiences in Resistance Training)[59] is a middle/junior high school-based program to prevent tobacco, alcohol, and marijuana use. Over 11 sessions, the program helps students understand that most people do not use drugs and teaches them to identify and resist the internal and social pressures that encourage substance use.

Project Northland[60] is a community-wide intervention designed to reduce adolescent alcohol use. The program spans three years and is multi-level, involving individual students, parents, peers, and community members, businesses, and organizations.

Project STAR (Students Taught Awareness and Resistance),[61] also known as the Midwestern Prevention Project, is a multi-component prevention program with the goal of reducing adolescent tobacco, alcohol, and marijuana use. The program consists of a 6th- and 7th-grade intervention supported by parent, community, and mass media components addressing the multiple influences of substance use.

Project Towards No Tobacco Use (TNT)[62] is a school-based classroom intervention to prevent and reduce tobacco use in youth from 10 to 15 years of age. The program focuses on the multiple causes of tobacco use, develops skills to resist social pressure to use tobacco, and provides information about its physical consequences. The program consists of ten core lessons and two booster lessons, each 40 to 50 minutes in length.

Quantum Opportunities Program[63] is designed to serve disadvantaged high school students by providing education, service, and development activities, as well as financial incentives (stipends) for youths' continuing participation. Mentoring is one component of the services provided. The program begins in 9th grade and continues through students' high school graduation. Additional financial incentives are provided for those who enroll in college.

Reducing the Risk Program[64] is a 16-session sex education curriculum emphasizing information on abstinence and contraception. The curriculum consists of activities to personalize information about sexuality and contraception, training in decision-making and assertiveness, practice in applying skills in difficult situations, and practice obtaining contraceptives. The program encourages conversations with parents about abstinence and contraception.

Regular Parole (versus not having parole).[65] In Washington, a natural experiment regarding parole for juvenile offenders occurred following a 1997 law change, allowing the comparison of similar groups of juveniles who did and did not receive parole after release. Recidivism rates of the two groups were tracked.

Scared Straight[66] typically takes young juvenile offenders to an adult prison where they are lectured by adult offenders about how their life will turn out if they do not change their ways.

School-based Clinics for Pregnancy Prevention are located in schools or immediately adjacent to schools in disadvantaged neighborhoods. Clinics provide general health care in addition to pregnancy and STD counseling and reproductive health services. Depending on the community, the clinics provide contraceptives directly or via arrangement with local family planning clinics.

---

[59] <http://www.projectalert.best.org>.
[60] <http://www.epi.umn.edu/projectnorthland>. Program description from the Colorado Blueprints for Violence Prevention website <http://www.colorado.edu/cspv/blueprints>.
[61] <http://www.colorado.edu/cspv/blueprints>.
[62] Steven Y. Sussman, Ph.D., Institute for Health Promotion and Disease Prevention Research, Department of Preventive Medicine, School of Medicine, University of Southern California (626) 457-6635.
[63] <http://www.colorado.edu/cspv/blueprints/model/programs/QOP.html>.
[64] <http://www.etr.org>.
[65] <http://www.wsipp.wa.gov/rptfiles/parolerecid.pdf>.
[66] See, J. O. Finchkenauer and P. W. Gavin. (1999) Scared Straight: The panacea phenomenon revisited. Prospect Heights, Il: Waveland Press.

Seattle Social Development Project[67] is a three-part intervention for teachers, parents, and students in grades 1 to 6. The focus is on elementary schools in high crime urban areas. The intervention trains teachers to manage classrooms to promote students' bonding to the school. This program also offers training to parents to promote bonding to family and school. It provides training to children designed to affect attitudes toward school, behavior in school, and academic achievement.

STARS for Families (Start Taking Alcohol Risks Seriously)[68] is a health promotion intervention designed to postpone alcohol use among at-risk middle and junior high school youth. The two-year intervention includes a 20-minute nurse consultation, regular mailings to parents, and take-home lessons for parents and children. The program can be implemented in a variety of settings, including schools.

Strengthening Families Program for Parents and Youth 10–14[69] (also known as the Iowa Strengthening Families Program) is a family-based program that attempts to reduce behavior problems and substance use by enhancing parenting skills, parent-child relationships, and family communication. The seven-week intervention is designed for 6th-grade students and their families.

Systems of Care/Wraparound Programs[70] emphasize providing individualized coordinated services among a variety of agencies and organizations and allows the child to remain in the community. This approach is considered preferable because it is more flexible, culturally competent, neighborhood-based, and tailored to individual circumstances. A systems of care approach has been applied to a number of populations; for this analysis, emphasis was placed on programs directed toward children with serious emotional disturbances who are in foster care or referred by the child welfare system.

Teen Outreach Program[71] is a school-based intervention to prevent teenage pregnancy and dropping out of school. The focus of this year-long program is supervised community volunteering. The students must volunteer for a minimum of 20 hours. Remaining class time is spent preparing for and discussing service experience, as well as other topics relevant to youth.

Teen Talk[72] aims to prevent teenage pregnancy for 13- to 19-year-olds. This community-based program consists of six sessions over a two- to three-week period for a total of 12 to 15 hours, including group lectures on reproductive health, physiology, and contraception. The remainder of the time is devoted to adult-led small group (six to eight youths) sessions where teens discuss beliefs and values and practice decision-making and refusal skills.

[67] <http://www.colorado.edu/cspv/blueprints/promising/programs/BPP13.html>.
[68] <http://www.unf.edu/coh/cdpr/rescontd.htm>.
[69] <http://www.extension.iastate.edu/sfp>.
[70] <http://cecp.air.org/promisingpractices>.
[71] <http://www.cornerstone.to/top/teen%20outreach.html>.
[72] <http://www.socio.com/srch/summary/pasha/full/paspp02.htm>.

PROGRAMS WITHOUT BENEFIT-COST ESTIMATES. As mentioned in the section on study limitations, some studies did not have sufficient information on costs, or used measures that could not be monetized, but the available research offered sufficient information on outcomes for some measurements of effect.[73]

Childhaven[74] consists of a day treatment program for children that provides a safe, therapeutic, and educational environment. Rather than concentrating attention on the parents, these programs aim to provide children with the environment and social conditions needed to overcome their abuse/neglect and thrive. We are unable to estimate the costs of this program at this time.

Communities Mobilizing for Change on Alcohol[75] is a community organizing effort to reduce teenagers' access to alcohol. The program helps community members involve law enforcement, licensing agencies, civic groups, faith-based groups, and schools to affect changes in policies and practices to achieve the goals of the program. We are unable to estimate the benefits and costs of this program at this time.

Family Group Conferences[76] is an intervention emphasizing the use of meetings among family members and professionals where family members develop their own plan to overcome identified problems and respond to concerns of child protection professionals. The meetings are commonly used as a decision-making apparatus when a child has been placed out of the home. This approach has a variety of names, including "Family Group Decision-Making," "Family Decision Meetings," or "Family Unity Meetings." Although there are over 20 evaluations of Family Group Conferences, only one uses a comparison group. We are unable to estimate the benefits of these programs at this time.

Home Visiting for Parents With Toddlers. Two programs use home visits to enhance the effectiveness of disadvantaged parents as teachers of their young children. The age at enrollment is 18 to 27 months for one program, and 3 years for the other. We are unable to estimate the costs of this program at this time.

Home Visiting Programs for Low Birth Weight Infants. Low birth weight infants are at risk for developmental delays. The programs included in this group were all associated with clinics or hospitals. Home visits were designed to help parents learn parenting skills and ways to encourage development of their infants. We are unable to estimate the costs of these programs at this time.

Know Your Body[77] is a comprehensive, skills-based school health promotion program for grades K–6. This curriculum addresses all health education content areas recommended by the Centers for Disease Control. Through its cross-curricula matrix, this program can easily be integrated into programs such as science, math, social studies, language arts, and physical education. We are unable to estimate the costs of this program at this time.

Other Community and Mass-Media Programs to Prevent Substance Use include a variety of efforts to reduce the initiation or prevalence of youth substance use, with a focus on the community level rather than individuals or school settings. These programs use institutional or policy changes; community mobilization; and radio, television, or print promotions of anti-substance use messages to achieve their goals. We are unable to estimate the costs of these programs at this time.

Other Comprehensive, Multi-level Programs to Prevent Substance Use include programs that combine a variety of approaches or tiers to reduce youth substance use or other detrimental behavior. These programs may integrate school-based prevention programs with other methods, such as family-focused interventions, home visits, community organizing, or public service promotions. We are unable to estimate the costs of these programs at this time.

---

[73] The Appendix to this report provides details for the study references and effect size calculations for each listing, available from <http://www.wsipp.wa.gov/rptfiles/04-07-3901a.pdf>.
[74] <http://www.childhaven.org/programs.htm>.
[75] <http://www.epi.umn.edu/alcohol/CMCA/CMCAdefault.html>.
[76] <http://www.pppncjfcj.org/html/technical_assistance_ref-famlygrp_decis.html>, and <http://www.americanhumane.org/site/PageServer?pagename=pc_fgdm_research_psu>. For referenced evaluation, see: K. Sundell and B. Vinnerljung. (2004) "Outcomes of family group conferencing in Sweden: A 3-year follow-up." Child Abuse and Neglect 28(3): 267-287.
[77] Program description from the Kendall/Hunt website <http://www.kendallhunt.com>.

Other Mentoring Programs provide one-on-one or group mentoring for at-risk youth in a community or school setting. School staff, college students, or community volunteers serve as mentor role models. With the exception of the Big Brothers Big Sisters and Juvenile Justice program models, mentoring is often just one of multiple program components. These programs generally have an array of goals, including improving academic and career outcomes, and reducing crime, substance abuse, and teen pregnancy. Due to the diversity of outcome measures used in these evaluations, we were unable to estimate the overall costs and benefits of these programs at this time.

Other Substance Use Prevention Programs Targeting Youth Risk and Protective Factors include a variety of programs designed to change behavioral or environmental factors that may influence substance use, criminality, school achievement, or other outcomes. Programs may focus on youth, their families, schools, or neighborhoods. Some programs specifically target youth or schools determined to be at greater risk. We are unable to estimate the costs of these programs at this time.

Project 12 Ways[78] provides multifaceted, in-home treatment to families designed to reduce repeated and recidivistic child abuse and neglect among clients. Services include parent-child training, stress reduction, self control, basic skill training, social support, home safety, health maintenance, and nutrition. The services focus on behavioral deficits and excesses which have precipitated previous abuse and neglect incidents. (Project SafeCare is a streamlined version of Project 12 Ways.) We are unable to estimate the costs of these programs at this time.

Project PATHE[79] (Positive Action Through Holistic Education) is a comprehensive program implemented in secondary schools that reduces school disorder and improves the school environment to enhance students' experiences and attitudes about school. More specifically, it increases students' bonding to the school, self-concept, and educational and occupational attainment which, in turn, reduce juvenile delinquency. We are unable to estimate the costs of this program at this time.

Project Taking Charge[80] is a pregnancy prevention program used in junior high home economics classrooms. The curriculum integrates family life education with lessons on vocational exploration, interpersonal and family relationships, decision making, and goal setting. It promotes abstinence as the correct choice for adolescents; no material on contraception is included. We are unable to estimate the costs of this program at this time.

Project Towards No Drug Use (TND)[81] is a targeted drug abuse prevention program with a focus on high school youth, ages 14 to 19, who are at risk for drug abuse. It has been tested at traditional and alternative high schools. A set of 12 in-class interactive sessions addresses the use of cigarettes, alcohol, marijuana, hard drug use, and violence-related behavior. We are unable to estimate the benefits of this program at this time.

Reach for Health—Community Youth Service[82] is a two-year curriculum designed for 7th and 8th graders. In addition to 40 hours of health curriculum each year, students spend three hours a week volunteering in local agencies, such as preschools or nursing homes. We are not able to estimate the costs of this program at this time.

Suicide Prevention Programs for at-risk youth can be divided into two categories: (1) school-based curriculum programs usually targeting high school students at risk for dropping out of school and suicide; and (2) hospital-based therapeutic programs targeting youth who attempted suicide or are in psychiatric crisis. We are not able to estimate the costs and benefits of these programs at this time.

Washington State Department of Health/Client-Centered Programs to Prevent Adolescent Pregnancy[81] are a collection of community-based programs aimed at adolescents considered to be at risk of teenage pregnancy. Projects offer a wide range of individualized services, tailored to the adolescent's age. Services include counseling, mentoring, and advocacy. We are not able to estimate the costs and benefits of these programs at this time.

---

[78] <http://www.p12ways.siu.edu>.
[79] Program description from the Colorado Blueprints website <http://www.colorado.edu/cspv/blueprints/promising/programs/BPP10.html>.
[80] <http://www.socio.com/srch/summary/pasha/full/paspp07.htm>.
[81] Steven Y. Sussman, Ph.D., Institute for Health Promotion and Disease Prevention Research, Department of Preventive Medicine, School of Medicine, University of Southern California (626) 457-6635. Program description from the Colorado Blueprints website <http://www.colorado.edu/cspv/blueprints/model/programs/TND.html>.
[82] <http://main.edc.org/newsroom/features/reach.asp>.
[81] D. McBride and A. Gienapp. (2000) "Using randomized designs to evaluate client-centered programs to prevent adolescent pregnancy." Family Planning Perspectives 32(5): 227-235.

Notes

This report was authored by: Steve Aos, Roxanne Lieb, Jim Mayfield, Marna Miller, and Annie Pennucci. The authors are grateful to Debra Fabritius, Janie Maki, and Jessikah Foulk for their assistance on this project.

For additional information, contact Steve Aos at (360) 586-2740 or saos@wsipp.wa.gov.

Document No. 04-07-3901

Washington State
Institute for
Public Policy

The Washington 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.