Washington State
Institute for Public Policy

UNIVERSITY OF WASHINGTON
Evidence-Based Practice Institute

110 Fifth Ave. SE, Ste. 214 • PO Box 40999 • Olympia, WA 98504
360.664.9800• www.wsipp.wa.gov

2815 Eastlake Ave. E., Ste. 200 • Box 358015 • Seattle, WA 98102
206.685.2085 • www.depts.washington.edu/ebpi

December 2018

Updated Inventory of Evidence-Based, Research-Based, and Promising Practices:

For Prevention and Intervention Services for Children and Juveniles in the Child Welfare, Juvenile Justice, and Mental Health Systems

Revised March 8, 2019 for technical corrections

The 2012 Legislature directed the Department of Social and Health Services to…[1]

- ✓ Provide prevention and intervention services to children that are primarily "evidence-based" and "research-based" in the areas of mental health, child welfare, and juvenile justice.

The legislation also directed two independent research groups—the Washington State Institute for Public Policy (WSIPP) and the University of Washington's Evidence-Based Practice Institute (EBPI) to…

- ✓ Create an "inventory" of evidence-based, research-based, and promising practices and services. The definitions (page 4) developed for evidence-based and research-based are high standards of rigor and represent programs that demonstrate effectiveness at achieving certain outcomes.

While the definitions used to build the inventory have not changed since the inventory was originally published in September 2012, programs may be classified differently with each update as new research becomes available. Thus, it is important to note that the inventory is a snapshot that can change as new evidence and information is incorporated.

To assemble the inventory, we operationalize each criterion for both the current law definitions for children as well as the suggested definitions of evidence-based and research-based (see page 4 for definitions).[2] For example, for the suggested definitions, the WSIPP benefit-cost model is used to determine whether a program meets the benefit-cost criterion by testing the probability that benefits exceed costs. Programs that achieve at least a 75% chance of a positive net present value meet the benefit-cost test.

The legislation required periodic updates to the inventory. This December 2018 report is the eighth update and reflects changes to the inventory from new promising program applications and WSIPP's ongoing work updating systematic research reviews and its benefit-cost model. The next update is anticipated in September 2019.[3]

[1] Engrossed Second Substitute House Bill 2536, Chapter 232, Laws of 2012.
[2] The suggested definitions have not been enacted into law; thus, we provide the classification of each program for both the suggested and current law definitions of evidence-based and research-based.
[3] This schedule was set by the two research groups and is subject to funding availability. This may change if necessary.

Creating the Children's Services Inventory

The Washington State Legislature often directs WSIPP to study the effectiveness and assess the potential benefits and costs of programs and policies that could be implemented in Washington State. These studies are designed to provide policymakers with objective information about which programs or policy options ("programs") work to achieve desired outcomes (e.g., reduced crime or improved health) and the likely long-term economic consequences of these options.

WSIPP implements a rigorous three-step research approach to undertake this type of study. Through these three steps we:

1) Identify what works (and what does not). For each program under consideration, we systematically review all rigorous research evidence and estimate the program's effect on all relevant outcomes. The evidence may indicate that a program worked (i.e., had a desirable effect on outcomes), caused harm (i.e., had an undesirable effect on outcomes), or had no detectable effect one way or the other.

2) Assess the return on investment. Given the estimated effect of a program from Step 1, we estimate—in dollars and cents—how much the program would benefit people in Washington were it implemented and how much it would cost the taxpayers to achieve this result. We use WSIPP's benefit-cost model to develop standardized, comparable results for all programs that illustrate the expected return on investment. We present these results as net present values on a per-participant basis. We also consider how monetary benefits are distributed across program participants, taxpayers, and other people in society.

3) Determine the risk of investment. We assess the riskiness of our conclusions by calculating the probability that a program will at least "break even" if critical factors—like the actual cost to implement the program and the precise effect of the program—are lower or higher than our estimates.

We follow a set of standardized procedures (see Exhibit 1) for each of these steps. These standardized procedures support the rigor of our analysis and allow programs to be compared on an apples-to-apples basis. For full detail on WSIPP's methods, see WSIPP's Technical Documentation.[4]

[4] WSIPP's meta-analytic and benefic-cost methods are described in detail in our Technical Documentation. Washington State Institute for Public Policy. (December 2018). *Benefit-cost technical documentation.* Olympia, WA: Author.

Exhibit 1

WSIPP's Three-Step Approach

Step 1: Identify what works (and what does not)

We conduct a meta-analysis—a quantitative review of the research literature—to determine if the weight of the research evidence indicates whether desired outcomes are achieved, on average.

WSIPP follows several key protocols to ensure a rigorous analysis for each program examined. We:

- Search for all studies on a topic—We systematically review the national and international research literature and consider all available studies on a program, regardless of their findings. That is, we do not "cherry pick" studies to include in our analysis.
- Screen studies for quality—We only include rigorous studies in our analysis. We require that a study reasonably attempt to demonstrate causality using appropriate statistical techniques. For example, studies must include both treatment and comparison groups with an intent-to-treat analysis. Studies that do not meet our minimum standards are excluded from analysis.
- Determine the average effect size—We use a formal set of statistical procedures to calculate an average effect size for each outcome, which indicates the expected magnitude of change caused by the program (e.g., tutoring by adults) for each outcome of interest (e.g., standardized test scores).

Step 2: Assess the return on investment

WSIPP has developed, and continues to refine, an economic model to provide internally consistent monetary valuations of the benefits and costs of each program on a per-participant basis.

Benefits to individuals and society may stem from multiple sources. For example, a program that reduces the need for publicly funded substance use treatment services decreases taxpayer costs. If that program also improves participants' educational outcomes, it will increase their expected labor market earnings. Finally, if a program reduces crime, it will reduce expected costs to crime victims.

We also estimate the cost required to implement an intervention. If the program is operating in Washington State, our preferred method is to obtain the service delivery and administrative costs from state or local agencies. When this approach is not possible, we estimate costs using the research literature, using estimates provided by program developers, or using a variety of sources to construct our own cost estimate.

Step 3: Determine the risk of investment

Any tabulation of benefits and costs involves a degree of uncertainty about the inputs used in the analysis, as well as the bottom-line estimates. An assessment of risk is expected in any investment analysis, whether in the private or public sector.

To assess the riskiness of our conclusions, we look at thousands of different scenarios through a Monte Carlo simulation. In each scenario, we vary a number of key factors in our calculations (e.g., expected effect sizes, program costs) using estimates of error around each factor. The purpose of this analysis is to determine the probability that a particular program or policy will produce benefits that are equal to or greater than costs if the real-world conditions are different than our baseline assumptions.

Classifying Practices as Evidence-Based, Research-Based, or Promising

The 2012 legislative assignment directed WSIPP and EBPI to identify evidence-based and research-based practices for children. To prepare an inventory of evidence-based, research-based, and promising practices and services, the bill required WSIPP and EBPI to publish descriptive definitions of these terms.[5] The table below contains the definitions currently in statute prior to the passage of the 2012 law as well as the suggested definitions for evidence-based and research-based developed by the two research entities as required by the law.

Exhibit 2

Current Law and Suggested Definitions

	Current law definition for children's mental health and juvenile justice	Suggested definitions for children's services developed by WSIPP & EBPI
Evidence-based	A program or practice that has had multiple site random controlled trials across heterogeneous populations demonstrating that the program or practice is effective for the population.	A program or practice that has been tested in heterogeneous or intended populations with multiple randomized and/or statistically controlled evaluations, or one large multiple-site randomized and/or statistically controlled evaluation, where the weight of the evidence from a systematic review demonstrates sustained improvements in at least one of the following outcomes: child abuse, neglect, or the need for out of home placement; crime; children's mental health; education; or employment. Further, "evidence-based" means a program or practice that can be implemented with a set of procedures to allow successful replication in Washington and, when possible, has been determined to be cost-beneficial.
Research-based	A program or practice that has some research demonstrating effectiveness but that does not yet meet the standard of evidence-based practices.	A program or practice that has been tested with a single randomized and/or statistically controlled evaluation demonstrating sustained desirable outcomes; or where the weight of the evidence from a systematic review supports sustained outcomes as identified in the term "evidence-based" in RCW (the above definition) but does not meet the full criteria for evidence-based. Further, "research-based" means a program or practice that can be implemented with a set of procedures to allow successful replication in Washington.
Promising practices	A practice that presents, based upon preliminary information, potential for becoming a research-based or consensus-based practice.	A program or practice that, based on statistical analyses or a well-established theory of change, shows potential for meeting the "evidence-based" or "research-based" criteria, which could include the use of a program that is evidence-based for outcomes other than the alternative use.

[5] The suggested definitions, originally published in 2012, were subsequently enacted by the 2013 Legislature for adult behavioral health services with slight modifications to relevant outcomes; however, they have not been enacted for the children's services inventory. Thus, we classify programs according to the statutory and proposed definitions (See: Second Substitute Senate Bill 5732, Chapter 338, Laws of 2013).

An application process for "promising" practices was created by EBPI to allow treatment providers to nominate practices for review. EBPI reviews the applications to determine if a program meets the criteria to be defined as promising. When outcome evaluation literature for the program exists, WSIPP then conducts a systematic review of the literature to determine if the program meets the definition of evidence-based or research-based.

For each program where research is available, we conduct a meta-analysis and benefit-cost analysis to classify practices as evidence- or research-based according to the above definitions. If outcome evaluations exist but the evidence indicates a non-significant effect (p-value > 0.20) on desired outcomes in the expected direction, then the program is designated as promising. When we cannot locate rigorous outcome evaluations for a program, we rely on EBPI to determine whether the program meets the criteria for promising.

To assemble the inventory, we operationalize each criterion in the statutory and suggested definitions. These are the same criteria WSIPP has used in assembling inventories in other policy areas including adult behavioral health, adult corrections, and the Learning Assistance Program. The criteria are as follows:

1) Weight of evidence. To meet the evidence-based definition, results from a random-effects meta-analysis (p-value < 0.20) of multiple evaluations or one large multiple-site evaluation must indicate the practice achieves the desired outcome(s). To meet the research-based definition, one single-site evaluation must indicate the practice achieves the desired outcomes (p-value < 0.20).

   If results from a random-effects meta-analysis of multiple evaluations are not statistically significant (p-value > 0.20) for desired outcomes, the practice may be classified as "null." If results from a random-effects meta-analysis of multiple evaluations or one large multiple-site evaluation indicate that a practice produces undesirable effects (p-value < 0.20), the practice may be classified as producing poor outcomes.

2) Benefit-cost. The proposed definition of evidence-based practices requires that, when possible, a benefit-cost analysis be conducted. We use WSIPP's benefit-cost model to determine whether a program meets this criterion.[6] Programs that have at least a 75% chance of a positive net present value meet the "cost-beneficial" criterion.

3) Heterogeneity. To be designated as evidence-based, the state statute requires that a program has been tested on a "heterogeneous" population. We operationalize heterogeneity in two ways. First, the proportion of program participants belonging to ethnic/racial minority groups must be greater than or equal to the proportion of minority children aged 0 to 17 in Washington. From the 2010 Census, for children aged 0 through 17 in Washington, 68% were White and 32% were minorities.[7] Thus, if the weighted average of program participants in the

[6] In order to operationalize the benefit-cost criterion, net benefits must exceed costs at least 75% of the time. After considerable analysis, we found that a typical program that WSIPP has analyzed may produce benefits that exceed costs roughly 75% of the time with a p-value cut-off of 0.20. Thus, we determined that programs with p-values < 0.20 on desired outcomes should be considered research-based in order to avoid classifying programs with desirable benefit-cost results as promising. For information about WSIPP's benefit-cost model see WSIPP. (December 2018).

[7] United States Census Bureau, 2010.

outcome evaluations of the program is at least 32% ethnic/racial minority, then the program is considered to have been tested in a heterogeneous population.

Second, the heterogeneity criterion can also be achieved if at least one of a program's outcome evaluations was conducted with children in Washington and a subgroup analysis demonstrates the program is effective for ethnic/racial minorities (p-value < 0.20).

Programs whose evaluations do not meet either of these two criteria do not meet the heterogeneity definition.

To summarize, we begin with the pool of programs defined at the outset and review the research literature for studies meeting WSIPP's criteria for methodological rigor. Programs that have no studies are not analyzed further, and these programs are noted in the inventory. Programs are deemed to be promising if some research on the program suggests effectiveness even though the studies do not meet WSIPP's methodological criteria or if the program has a well-defined theory of change. For programs that do have studies that meet WSIPP's methodological criteria, we conduct a meta-analysis. If the meta-analysis indicates at least one effect on an outcome of interest according to the weight of evidence criterion, the program is eligible to be either research-based or evidence-based. To reach the top tier, a program must also meet heterogeneity and benefit-cost criteria.

In the September 2017 inventory, WSIPP clarified classifications for programs that produce null or poor results. In earlier inventories, there was a single category for programs producing "null or poor outcomes." Programs with null effects on outcomes (p-value > 0.20) were inconsistently categorized as either "null or poor" or as "promising." WSIPP now defines two separate categories to distinguish between programs producing null results (no significant effect on desired outcomes) and those producing poor (undesirable) outcomes and has standardized the application of these definitions. If results from a random-effects meta-analysis of multiple evaluations or one large multiple-site evaluation are not statistically significant (p-value > 0.20) for relevant outcomes, the practice may be classified as "null." If results from a random-effects meta-analysis of multiple evaluations or one large multiple-site evaluation indicate that a practice produces undesirable effects (p-value < 0.20), the practice may be classified as producing "poor" outcomes. If there is sufficient evidence of desirable effects on some outcomes but undesirable effects on other outcomes, we note the mixed results next to the program rating.

If a program is not listed on the inventory, we have not yet had the opportunity to review it or it may not meet criteria for promising. The children's services inventory is displayed at the end of this report and is also available on our website.[8] Further information on the individual programs contained in the inventory can also be found on our website.[9]

[8] WSIPP & EBPI. (2018). *Updated inventory of evidence-based, research-based, and promising practices: For prevention and intervention services for children and juveniles in the child welfare, juvenile justice, and mental health systems* (Document Number E2SHB2536-9). Olympia: Washington State Institute for Public Policy.
[9] WSIPP. *Benefit-cost results*.

Updates to the Inventory as of December 2018

WSIPP has added 22 programs since the last inventory was published in September 2017.

Exhibit 3
New Program Classifications

Program/intervention name	Classification*
Child welfare	
Attachment & Biobehavioral Catch-Up	Research-based
Kinship care compared to traditional (non-kin) foster care	Promising
Juvenile justice	
Youth Advocate Programs—Mentoring	Promising
Mental health	
Child Parent Relationship Therapy	Evidence-based
Cognitive behavioral therapy (CBT) for prodromal psychosis	Research-based
Integrated treatment for first-episode psychosis	Evidence-based
Integrated treatment for prodromal psychosis	Research-based
Mentoring: Community-based for children with disruptive behavior disorders	Research-based
General prevention	
Becoming a Man (BAM)	Evidence-based
Caring School Community (formerly Child Development Project)	Null
Child Parent Enrichment Project (CPEP)	Poor outcomes
Conjoint behavioral consultation	Null
Daily Behavior Report Cards	Research-based
Early Head Start—Home Visiting	Promising
Family Connects	Research-based
Family Spirit	Research-based
Healthy Beginnings	Promising
Maternal Early Childhood Sustained Home-Visiting (MESCH)	Promising
Minding the Baby	Promising
Other home visiting programs for adolescent mothers	Evidence-based
Resources, Education, and Care in the Home (REACH—Futures)	Promising
Sunshine Circle Model	Research-based

Notes:
*Classifications using suggested definitions.
Programs with multiple evaluations or a single multi-site evaluation that do not demonstrate statistically significant results are classified as "Null."

WSIPP updated literature reviews and meta-analyses for 49 programs in this inventory since the 2017 publication. These updates encompass including new research evidence, removing studies from the set of included studies, dividing certain categories of programs into two or more specific programs, updating statistical calculations, and/or updating program costs. Due to these changes, WSIPP reclassified 20 programs, largely in children's mental health interventions.

Additional changes resulted in seven other program re-classifications. These changes include refining our program classification strategy for null programs (new to the 2017 inventory), revising the set of outcomes considered to determine classification (e.g., using only substance use outcomes to classify substance use treatment programs), and updates to WSIPP's benefit-cost model and analyses.

In November 2018 WSIPP completed an update to its benefit-cost model that reflects ongoing improvements to inputs and calculations across a variety of policy areas. We revised benefit-cost analyses using WSIPP's updated model for all eligible programs on the inventory.[10] This update has implications for whether programs on the inventory meet WSIPP's suggested benefit-cost criterion for evidence-based practice, described above. Programs with no benefit-cost analysis may still be classified as evidence-based if all other criteria are met.

[10] WSIPP conducts a benefit-cost analysis when program outcomes can be linked to benefits (future economic consequences), program costs can be estimated, the analysis sample size meets our standard requirements, and WSIPP's benefit-cost model includes an appropriate population for modeling benefits and costs over time.

Exhibit 4

Classifications Revised Due to Updated Meta-Analyses or Benefit-Cost Modeling

Program/intervention name	2017 classification	Current classification*	Reason for classification change
Juvenile justice			
Multisystemic Therapy (MST)	Research-based	Evidence-based	Benefit-cost
Vocational and employment training	Research-based	Null	Classification based on revised set of outcomes
Mental health			
Behavioral parent training (BPT) for children with ADHD	Research-based	Evidence-based	Included new evidence, removed studies from analysis
Helping the Noncompliant Child for children with disruptive behavior	Research-based	Null	Removed studies from analysis
Parent-Child Interaction Therapy (PCIT) for children with disruptive behavior	Evidence-based	Research-based	Included new evidence, removed studies from analysis
Parent Management Training—Oregon Model (treatment population)	Evidence-based	Research-based	Updated statistical calculations
Triple P—Positive Parenting Program: Level 4, individual	Evidence-based	Research-based	Included new evidence, removed studies from analysis
Other behavioral parent training (BPT) for children with disruptive behavior	Research-based	Evidence-based	Included new evidence
Choice Theory/Reality Therapy for children with disruptive behavior	Research-based	Promising	Updated statistical calculations
Multimodal therapy (MMT) for children with disruptive behavior	Null	Research-Based	Included new evidence
Stop Now and Plan (SNAP)	Research-based	Evidence-Based	Included new evidence
Multisystemic Therapy (MST) for youth with serious emotional disturbance (SED)	Research-based	Evidence-Based	Included new evidence, removed studies from analysis, removed BC requirement**
Full fidelity wraparound for children with serious emotional disturbance (SED)	Research-based	Evidence-Based	Included new evidence, removed BC requirement**
Intensive Family Preservation (HOMEBUILDERS®) for youth with serious emotional disturbance (SED)	Research-based	Null	Updated statistical calculations
Eye Movement Desensitization and Reprocessing (EMDR) for child trauma	Evidence-based	Promising	Removed studies from analysis
Kids Club & Moms Empowerment	Promising	Research-based	Included new evidence
Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH-ADTC)	Research-based	Evidence-based	Included new evidence
Mentoring: Great Life Mentoring (formerly 4Results Mentoring)	Promising	Research-based	Included new evidence

General prevention			
Families and Schools Together (FAST)	Research-based	Null	Included new evidence, removed studies from analysis
Good Behavior Game	Research-based	Evidence-based	Included new evidence
New Beginnings for children of divorce	Research-based	Null	Included new evidence
Raising Healthy Children	Promising	Null	Refined null definition
Strengthening Families for Parents and Youth 10-14	Research-based	Null	Included new evidence, removed studies from analysis
Substance use disorder			
Compliance checks for tobacco	Promising	Research-based	Classification based on revised set of outcomes
MET/CBT-5 for youth marijuana use	Research-based	Null	Classification based on revised set of outcomes
Multicomponent environmental interventions to prevent youth alcohol use	Promising	Research-based	Classification based on revised set of outcomes
Teen Marijuana Check-Up (TMCU)	Evidence-based	Research-based	Benefit-cost

Notes:
*Classifications using suggested definitions.
** For this update to the inventory, WSIPP did not conduct benefit-cost analyses for interventions targeting seriously emotionally disturbed youth. This is because WSIPP's benefit-cost model does not currently include data on an appropriate comparison population for modeling long-term economic impacts.

Limitations

The benefit-cost analyses in this report reflect only those outcomes that were measured in the studies we reviewed. We focus primarily on outcomes that are "monetizable" with the current WSIPP benefit-cost model. "Monetizable" means that we can link the outcome to future economic consequences, such as labor market earnings, criminal justice involvement, or health care expenditures. At this time we are unable to monetize some outcomes, including homelessness and placement stability.

Future Updates

The next update to this inventory is planned for September 2019, contingent on funding.

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Budget area	Program/intervention	Manual	Current definitions	Proposed definitions	Cost-beneficial	Reason program does not meet suggested evidence-based criteria (see full definitions below)	Percent minority
Child welfare	**Intervention**						
	Alternatives for Families (AF-CBT)	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Attachment & Biobehavioral Catch-up	Yes	◉	◉		Single evaluation	19%
	Family dependency treatment court	Yes	◉	◉	7%	Benefit-cost	35%
	Fostering Healthy Futures	Yes	◉	◉		Single evaluation	56%
	Functional Family Therapy—Child Welfare (FFT-CW)	Yes	P	Null		Weight of the evidence	95%
	Including Fathers—Father Engagement Program	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Intensive Family Preservation Services (HOMEBUILDERS®)	Yes	●	●	97%		58%
	Kinship care compared to traditional (non-kin) foster care	No	P	P		No rigorous evaluation measuring outcome of interest	
	Locating family connections for children in foster care	Yes	P	Null		Weight of the evidence	66%
	Multisystemic Therapy (MST) for child abuse and neglect	Yes	◉	◉		Single evaluation	82%
	Other Family Preservation Services (non-HOMEBUILDERS®)	Varies*	⊘	⊘	0%	Weight of the evidence	76%
	Parent-Child Assistance Program	Yes	P	P		Single evaluation	52%
	Parent-Child Interaction Therapy (PCIT) for families in the child welfare system	Yes	●	●	96%		48%
	Parents for Parents	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Partners with Families and Children	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Pathway to Reunification	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	SafeCare	Yes	●	●	93%		33%
	Youth Villages LifeSet	Yes	◉	◉	21%	Benefit-cost	49%
	Prevention						
	Circle of Security	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Circle of Security—Parenting (COS-P)	Yes	P	P	56%	Single evaluation	89%
	Healthy Families America	Yes	●	◉	58%	Mixed results/benefit-cost	63%
	Nurse Family Partnership	Yes	●	◉	62%	Benefit-cost/heterogeneity	20%
	Other home visiting programs for at-risk families	Varies*	●	◉	51%	Mixed results/benefit-cost	63%
	Parent-Child Home Program	Yes	P	P		Single evaluation	NR
	Parent Mentor Program	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Parents and Children Together (PACT)	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Parents as Teachers	Yes	◉	◉	30%	Benefit-cost	66%
	Promoting First Relationships	Yes	P	P	47%	Single evaluation	43%
	Safe Babies, Safe Moms	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Triple-P Positive Parenting Program (System)	Yes	◉	◉	64%	Benefit-cost	33%

● Evidence-based ◉ Research-based **P** Promising ⊘ Poor outcomes **Null** Null outcomes **NR** Not reported See definitions and notes on page 22.

Notes:

* This is a general program/intervention classification. Some programs within this classification have manuals and some do not. The results listed on the inventory represent a typical, or average, implementation. Additional research will need to be completed in order to establish the most effective sets of procedures within this general category.

** This program is an example within a broader category.

This program is classified as evidence-based because it meets weight of the evidence and heterogeneity criteria. It was not possible to conduct a benefit-cost analysis for this program, either because program costs are unavailable or because WSIPP's benefit-cost model does not currently include data on an appropriate comparison population for modeling long-term economic impacts.

^ Heterogeneity criterion is achieved because at lease one of the studies has been conducted on youth in Washington and a subgroup analysis demonstrates the program is effective for minorities ($p < 0.20$).

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Juvenile justice	Adolescent Diversion Project	Yes	●	●	97%		58%
	Aggression Replacement Training (ART)	Yes					
	Youth in state institutions		◉	◉	66%	Benefit-cost	34%
	Youth on probation		◉	◉	62%	Benefit-cost	34%
	Boot camps	Varies*	P	Null	92%	Weight of the evidence	55%
	Cognitive behavioral therapy (CBT)	Varies*	●	●	94%		43%
	Connections Wraparound	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Coordination of Services	Yes	◉	◉	96%	Heterogeneity	23%
	Dialectical Behavior Therapy (DBT) for youth in the juvenile justice system	Yes	◉	◉	93%	Single evaluation	27%^
	Dialectical Behavior Therapy (DBT) for substance use disorder: Integrated treatment model	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Diversion	Varies*					
	No services (vs. traditional juvenile court processing)	Varies*	●	●	98%		66%
	With services (vs. simple release)	Varies*	P	Null	39%	Weight of the evidence	70%
	With services (vs. traditional juvenile court processing)	Varies*	●	●	94%		73%
	Drug court	Varies*	P	Null	41%	Weight of the evidence	40%
	Education and Employment Training (EET, King County)	Yes	◉	◉	100%	Single evaluation	74%
	Family Integrated Transitions for youth in state institutions	Yes	◉	◉	40%	Single evaluation	30%^
	Functional Family Parole	Yes	P	Null	75%	Weight of the evidence	51%
	Functional Family Therapy	Yes					
	Youth in state institutions	Yes	●	●	96%		36%
	Youth on probation	Yes	●	●	96%		36%
	Group homes	Varies*					
	Teaching-Family Model	Yes	P	P	58%	Weight of the evidence	22%
	Other group home programs (non-name brand)	Varies*	P	P		Single evaluation	NR
	Intensive supervision	Varies*					
	Parole	Varies*	P	Null	76%	Weight of the evidence	74%
	Probation	Varies*	P	Null	0%	Weight of the evidence	58%
	Juvenile Detention Alternatives Initiative	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Mentoring	Yes	●	●	81%		65%

● Evidence-based ◉ Research-based **P** Promising ⊘ Poor outcomes **Null** Null outcomes **NR** Not reported See definitions and notes on page 22.

Notes:

* This is a general program/intervention classification. Some programs within this classification have manuals and some do not. The results listed on the inventory represent a typical, or average, implementation. Additional research will need to be completed in order to establish the most effective sets of procedures within this general category.

** This program is an example within a broader category.

This program is classified as evidence-based because it meets weight of the evidence and heterogeneity criteria. It was not possible to conduct a benefit-cost analysis for this program, either because program costs are unavailable or because WSIPP's benefit-cost model does not currently include data on an appropriate comparison population for modeling long-term economic impacts.

^ Heterogeneity criterion is achieved because at lease one of the studies has been conducted on youth in Washington and a subgroup analysis demonstrates the program is effective for minorities ($p < 0.20$).

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Juvenile justice (continued)	Multidimensional Treatment Foster Care	Yes	◉	◉	64%	Benefit-cost/heterogeneity	24%
	Multisystemic Therapy (MST)	Yes	◉	●	76%		79%
	Other family-based therapies (non-name brand)	Varies*	●	●	92%		53%
	Parenting with Love and Limits	Yes	◉	●	93%		62%
	Scared Straight	Yes	⊘	⊘	2%	Weight of the evidence	NR
	Step Up	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Team Child	Yes	P	Null		Weight of the evidence	25%
	Treatment for juveniles convicted of sex offenses	Varies*					
	Multisystemic Therapy (MST) for juveniles convicted of sex offenses	Yes	●	◉	63%	Benefit-cost	51%
	Other treatment for juveniles convicted of sex offenses (non-MST)	Varies*	P	Null	15%	Weight of the evidence	30%
	Treatment for juveniles with substance use disorder	Varies*					
	Multisystemic Therapy (MST) for juveniles with substance use disorder	Yes	●	◉	52%	Benefit-cost	65%
	Other substance use disorder treatment for juveniles (non-therapeutic communities)	Varies*	P	Null	48%	Weight of the evidence	68%
	Therapeutic communities for juveniles with substance use disorder	Varies*	◉	◉	56%	Benefit-cost	54%
	Vocational and employment training	Varies*	◉	Null	49%	Weight of the evidence	55%
	Victim offender mediation	Varies*	P	Null	76%	Weight of the evidence	61%
	Wilderness experience programs	Varies*	●	●	95%		36%
	You Are Not Your Past	No	P	P		No rigorous evaluation measuring outcome of interest	
	Youth Advocate Programs—Mentoring	Yes	P	P		No rigorous evaluation measuring outcome of interest	

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Mental health	**Anxiety**						
	Acceptance and Commitment Therapy (ACT) for children with anxiety	Yes	◉	◉	85%	Single evaluation	15%
	Group and individual cognitive behavioral therapy (CBT) for children & adolescents with anxiety	Varies*	●	◉	95%	Heterogeneity	21%
	Cool Kids**	Yes					
	Coping Cat**	Yes					
	Coping Cat/Koala book-based model**	Yes					
	Coping Koala**	Yes					
	Other cognitive behavioral therapy (CBT) for children with anxiety**	Varies*					
	Parent cognitive behavioral therapy (CBT) for children with anxiety	Varies*	◉	◉	93%	Heterogeneity	NR
	Remote cognitive behavioral therapy (CBT) for children with anxiety	Varies*	◉	◉	95%	Heterogeneity	NR
	Theraplay	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Attention Deficit Hyperactivity Disorder						
	Behavioral parent training (BPT) for children with ADHD		◉	●	75%		35%
	Barkley Model**	Yes					
	New Forest Parenting Programme**	Yes					
	Cognitive behavioral therapy (CBT) for children with ADHD	Varies*	P	Null	47%	Weight of the evidence	14%
	Encompass for ADHD	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Multimodal therapy (MMT) for children with ADHD	Varies*	◉	◉	53%	Benefit-cost	43%
	Depression						
	Acceptance and Commitment Therapy (ACT) for children with depression	Yes	◉	◉	50%	Benefit-cost/heterogeneity	NR
	Cognitive behavioral therapy (CBT) for children & adolescents with depression	Varies*	◉	◉	49%	Benefit-cost/heterogeneity	30%
	Coping With Depression—Adolescents**	Yes					
	Treatment for Adolescents with Depression Study**	Yes					
	Other cognitive behavioral therapy (CBT) for children & adolescents with depression**	Varies*					
	Collaborative primary care for children with depression	Varies*	◉	◉	50%	Benefit-cost/heterogeneity	28%
	Blues Program (prevention program for students at risk for depression)	Yes	●	◉	49%	Benefit-cost	38%

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Mental health (continued)	**Disruptive Behavior (Oppositional Defiant Disorder or Conduct Disorder)**						
	Behavioral parent training (BPT) for children with disruptive behavior	Varies*					
	Helping the Noncompliant Child for children with disruptive behavior	Yes	◉	P	51%	Single evaluation	31%
	Incredible Years Parent Training	Yes	●	◉	59%	Benefit-cost	41%
	Incredible Years Parent Training with Incredible Years Child Training	Yes	●	◉	2%	Benefit-cost	45%
	Parent-Child Interaction Therapy (PCIT) for children with disruptive behavior	Yes	●	◉	29%	Benefit-cost	76%
	Parent Management Training—Oregon Model (treatment population)	Yes	●	◉	71%	Benefit-cost/heterogeneity	NR
	Triple P—Positive Parenting Program: Level 4, group	Yes	●	●	97%		80%
	Triple P—Positive Parenting Program: Level 4, individual	Yes	●	◉	60%	Benefit-cost/heterogeneity	NR
	Other behavioral parent training (BPT) for children with disruptive behavior	Varies*	◉	●	96%		95%
	Brief Strategic Family Therapy (BSFT)	Yes	●	◉	61%	Benefit-cost	76%
	Collaborative primary care for children with behavior disorders	Varies*	◉	◉	60%	Benefit-cost/heterogeneity	18%
	Coping Power Program	Yes	◉	◉	54%	Benefit-cost	80%
	Child Parent Relationship Therapy	Yes	●	●	79%		62%
	Choice Theory/Reality Therapy for children with disruptive behavior	Yes	◉	P		Single evaluation	27%
	Mentoring: Community-based for children with disruptive behavior	Varies*	◉	◉	67%	Benefit-cost/heterogeneity	7%
	Multimodal therapy (MMT) for children with disruptive behavior	Varies*	P	◉	57%	Benefit-cost/heterogeneity	5%
	Stop Now and Plan (SNAP)	Yes	◉	●	86%		77%

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Mental health (continued)	**Fetal Alcohol Syndrome**						
	Families Moving Forward	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Serious Emotional Disturbance						
	Cognitive behavioral therapy (CBT) for prodromal psychosis	Varies*	◉	◉		Heterogeneity	NR
	Dialectical Behavior Therapy (DBT) for adolescent self-harming behavior	Yes	◉	◉	50%	Benefit-cost	44%
	Multisystemic Therapy (MST) for youth with serious emotional disturbance (SED)#	Yes	◉	●			38%
	Full fidelity wraparound for children with serious emotional disturbance (SED)#	Yes	◉	●			48%
	Individual Placement and Support for first episode psychosis	Yes	◉	◉		Single evaluation	50%
	Integrated treatment for first-episode psychosis#	Varies*	◉	●			73%
	Integrated treatment for prodromal psychosis	Varies*	◉	◉		Heterogeneity	NR
	Intensive Family Preservation (HOMEBUILDERS®) for youth with serious emotional disturbance (SED)	Yes	⊘	Null		Weight of the evidence	95%
	Trauma						
	ADOPTS (therapy to address distress of post traumatic stress in adoptive children)	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Child-Parent Psychotherapy	Yes	◉	◉	96%	Single evaluation	49%
	Cognitive behavioral therapy (CBT)-based models for child trauma	Varies*	●	●	100%		82%
	Classroom-based intervention for war-exposed children**	Yes					
	Cognitive Behavioral Intervention for Trauma in Schools**	Yes					
	Enhancing Resiliency Among Students Experiencing Stress (ERASE-Stress)**	Yes					
	KID-NET Narrative Exposure Therapy for children**	Yes					
	Teaching Recovery Techniques (TRT)**	Yes					
	Trauma Focused CBT for children**	Yes					
	Trauma Grief Component Therapy**	Yes					
	Other cognitive behavioral therapy (CBT)-based models for child trauma**	Varies*					
	Eye Movement Desensitization and Reprocessing (EMDR) for child trauma	Yes	●	P	83%	Weight of the evidence	81%
	Kids Club & Moms Empowerment	Yes	P	◉	81%	Single evaluation	48%
	Take 5: Trauma Affects Kids Everywhere—Five Ways to Promote Resilience	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Other						
	Mentoring: Great Life Mentoring (formerly 4Results Mentoring)	Yes	◉	◉		Single evaluation	18%
	Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH-ADTC)	Yes	◉	●	98%		78%
	Motivational interviewing to engage children in mental health treatment	Varies*	◉	◉		Heterogeneity	27%

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General prevention	Becoming a Man (BAM)	Yes	⦿	●	75%		98%
	Caring School Community (formerly Child Development Project)	Yes	⦿	Null	61%	Weight of the evidence	47%
	Child First	Yes	⦿	⦿	44%	Single evaluation	94%
	Child Parent Enrichment Project (CPEP)	Yes	⦸	⦸	12%	Weight of the evidence	55%
	Communities That Care	Yes	●	●	85%		33%
	Conjoint behavioral consultation	Yes	P	Null	25%	Weight of the evidence	21%
	Coping and Support Training	Yes	●	●	81%		51%
	Daily Behavior Report Cards	Yes	⦿	⦿		Single evaluation	13%
	Early Head Start—Home Visiting	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Early Start (New Zealand)	Yes	⦿	⦿	8%	Single evaluation	NR
	Family Check-Up (also known as Positive Family Support)	Yes	●	⦿	49%	Benefit-cost	61%
	Familias Unidas	Yes	⦿	⦿	41%	Benefit-cost	100%
	Family Connects	Yes	⦿	⦿		Single evaluation	71%
	Family Spirit	Yes	⦿	⦿	56%	Benefit-cost	100%
	Families and Schools Together (FAST)	Yes	P	Null	50%	Weight of the evidence	83%
	Fast Track prevention program	Yes	⦿	⦿	0%	Benefit-cost	53%
	Good Behavior Game	Yes	●	●	76%		50%
	Guiding Good Choices (formerly Preparing for the Drug Free Years)	Yes	⦿	⦿	51%	Single evaluation	1%
	Healthy Beginnings	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Home Instruction for Parents of Preschool Youngsters (HIPPY)	Yes	P	P	52%	Weight of the evidence	93%
	Infant Health and Development Program (IHDP)	Yes	⦿	⦿	19%	Benefit-cost	58%
	Kaleidoscope Play and Learn	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Maternal Early Childhood Sustained Home-Visiting (MESCH)	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Mentoring: Community-based						
	Mentoring: Big Brothers Big Sisters Community-Based (taxpayer costs only)	Yes	●	⦿	41%	Benefit-cost	57%
	Mentoring: Community-based (taxpayer costs only)	Varies*	●	⦿	66%	Benefit-cost	85%
	Mentoring: School-based						
	Mentoring: Big Brothers Big Sisters School-Based (taxpayer costs only)	Yes	●	⦿	7%	Benefit-cost	64%
	Mentoring: School-based by teachers or school staff	Varies*	●	⦿	71%	Benefit-cost	86%
	Mentoring: School-based by volunteers (taxpayer costs only)	Varies*	P	Null	16%	Weight of the evidence	78%
	Minding the Baby	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	New Beginnings for children of divorce	Yes	P	Null	48%	Weight of the evidence	25%
	Nurturing Fathers	Yes	P	P		No rigorous evaluation measuring outcome of interest	

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General prevention (continued)	Other home visiting programs for adolescent mothers[#]	Varies*	●	●			58%
	Positive Action	Yes	●	●	95%		57%
	Promoting Alternative Thinking Strategies (PATHS)	Yes	P	Null	63%	Weight of the evidence	49%
	PROSPER	Yes	◉	◉	55%	Benefit-cost/heterogeneity	15%
	Pyramid Model	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Quantum Opportunities Program	Yes	●	◉	52%	Benefit-cost	90%
	Raising Healthy Children	Yes	P	Null		Weight of the evidence	18%
	Resources, Education, and Care in the Home (REACH-Futures)	Yes	◉	P	NA	Single evaluation	100%
	Reconnecting Youth	Yes	⊘	⊘		Weight of the evidence	92%
	Seattle Social Development Project	Yes	◉	◉	60%	Benefit-cost	35%
	Strengthening Multi-Ethnic Families and Communities	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Strengthening Families for Parents and Youth 10-14	Yes	◉	Null	58%	Weight of the evidence	19%
	Strong African American Families	Yes	◉	◉		Single evaluation	100%
	Strong African American Families—Teen	Yes	◉	◉		Single evaluation	100%
	Sunshine Circle Model	Yes	◉	◉	91%	Single evaluation	87%
	Youth and Family Link	No	P	P		No rigorous evaluation measuring outcome of interest	

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Substance use disorder	**Prevention**						
	Alcohol Literacy Challenge (for high school students)	Yes	P	P	58%	Single evaluation	33%
	Athletes Training and Learning to Avoid Steroids (ATLAS)	Yes	P	Null		Weight of the evidence	22%
	Brief intervention for youth in medical settings	Yes	◉	◉	41%	Benefit-cost	65%
	Compliance checks for alcohol	Varies*	◉	◉		Heterogeneity	25%
	Compliance checks for tobacco	Varies*	●	◉		Heterogeneity	28%
	Family Matters	Yes	◉	◉	73%	Benefit-cost/heterogeneity	22%
	keepin' it REAL	Yes	P	Null	61%	Weight of the evidence	83%
	LifeSkills Training	Yes	●	◉	59%	Benefit-cost	38%
	Lions Quest Skills for Adolescence	Yes	◉	◉	65%	Benefit-cost	74%
	Marijuana Education Initiative	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Multicomponent environmental interventions to prevent youth alcohol use	Varies*	◉	◉	28%	Benefit-cost/heterogeneity	19%
	Multicomponent environmental interventions to prevent youth tobacco use	Varies*	◉	◉	85%	Heterogeneity	21%
	Project ALERT	Yes	●	◉	70%	Benefit-cost/heterogeneity	12%
	Project Northland	Yes	●	◉	70%	Benefit-cost	36%
	Project STAR	Yes	●	◉	67%	Benefit-cost/heterogeneity	5%
	Project SUCCESS	Yes	P	Null	43%	Weight of the evidence	38%
	Project Toward No Drug Abuse	Yes	●	◉	56%	Benefit-cost	70%
	Protecting You/Protecting Me	Yes	P	P		Single evaluation	92%
	SPORT	Yes	◉	◉	70%	Benefit-cost	49%
	STARS (Start Taking Alcohol Risks Seriously) for Families	Yes	P	P		Single evaluation	66%
	Teen Intervene	Yes	●	◉	49%	Benefit-cost/heterogeneity	29%

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Substance use disorder (continued)	**Treatment**						
	Adolescent Assertive Continuing Care (ACC)	Yes	◉	◉	37%	Benefit-cost/heterogeneity	27%
	Adolescent Community Reinforcement Approach (A-CRA)	Yes	◉	◉		Single evaluation	59%
	Dialectical behavior therapy for substance abuse: Integrated treatment model	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Functional Family Therapy (FFT) for adolescents with substance use disorder	Yes	◉	◉	35%	Benefit-cost	74%
	Matrix Model treatment for adolescents with substance use disorder	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	MET/CBT-5 for youth marijuana use	Yes	◉	Null		Weight of the evidence	33%
	Multidimensional Family Therapy (MDFT)	Yes	◉	◉	25%	Benefit-cost	87%
	Recovery Support Services	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Seven Challenges	Yes	P	P		No rigorous evaluation measuring outcome of interest	
	Teen Marijuana Check-Up (TMCU)	Yes	●	◉	48%	Benefit-cost	35%
	Treatment for youth involved in the juvenile justice system						
	Multisystemic Therapy (MST) for juveniles with substance use disorder	Yes	●	◉	52%	Benefit-cost	65%
	Other substance use disorder treatment for juveniles (non-therapeutic communities)	Varies*	P	Null	48%	Weight of the evidence	68%
	Therapeutic communities for juveniles with substance use disorder	Varies*	◉	◉	56%	Benefit-cost	54%

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Definitions and Notes:

Level of Evidence:

Evidence-based: A program or practice that has been tested in heterogeneous or intended populations with multiple randomized and/or statistically controlled evaluations, or one large multiple-site randomized and/or statistically controlled evaluation, where the weight of the evidence from a systematic review demonstrates sustained improvements in at least one outcome. Further, "evidence-based" means a program or practice that can be implemented with a set of procedures to allow successful replication in Washington and, when possible, has been determined to be cost-beneficial.

Research-based: A program or practice that has been tested with a single randomized and/or statistically controlled evaluation demonstrating sustained desirable outcomes; or where the weight of the evidence from a systematic review supports sustained outcomes as identified in the term "evidence-based" in RCW (the above definition) but does not meet the full criteria for "evidence-based."

Promising practice: A program or practice that, based on statistical analyses or a well-established theory of change, shows potential for meeting the "evidence-based" or "research-based" criteria, which could include the use of a program that is evidence-based for outcomes other than the alternative use.

Null outcome(s): If results from multiple evaluations or one large multiple-site evaluation indicate that a program has no significant effect on outcomes of interest (p-value > 0.20), a program is classified as producing "null outcomes."

Reasons Programs May Not Meet Suggested Evidence-Based Criteria:

Benefit-cost: The proposed definition of evidence-based practices requires that, when possible, a benefit-cost analysis be conducted. We use WSIPP's benefit-cost model to determine whether a program meets this criterion. Programs that do not have at least a 75% chance of a positive net present value do not meet the benefit-cost test. The WSIPP model uses Monte Carlo simulation to test the probability that benefits exceed costs. The 75% standard was deemed an appropriate measure of risk aversion.

Heterogeneity: To be designated as evidence-based under current law or the proposed definition, a program must have been tested on a "heterogeneous" population. We operationalized heterogeneity in two ways. First, the proportion of minority program participants must be greater than or equal to the minority proportion of children under 18 in Washington State. From the 2010 Census, of all children in Washington, 68% were White and 32% minority. Thus, if the weighted average of program participants had at least 32% minorities then the program was considered to have been tested on a heterogeneous population.

Second, the heterogeneity criterion can also be achieved if at least one of the studies has been conducted on children in Washington and a subgroup analysis demonstrates the program is effective for minorities (p-value < 0.20). Programs passing the second test are marked with a ^. Programs that do not meet either of these two criteria do not meet the heterogeneity definition. Programs whose evaluations do not meet either of these two criteria do not meet the heterogeneity definition.

Mixed results: If findings are mixed from different measures (e.g., undesirable outcomes for behavior measures and desirable outcomes for test scores), the program does not meet evidence-based criteria.

No rigorous evaluation measuring outcome of interest: The program has not yet been tested with a rigorous outcome evaluation.

Single evaluation: The program does not meet the minimum standard of multiple evaluations or one large multiple-site evaluation contained in the current or proposed definitions.

Weight of evidence: To meet the evidence-based definition, results from a random-effects meta-analysis (p-value < 0.20) of multiple evaluations or one large multiple-site evaluation must indicate the practice achieves the desired outcome(s). To meet the research-based definition, one single-site evaluation must indicate the practice achieves the desired outcomes (p-value < 0.20).

Other Definitions:

Benefit-cost percentage: Benefit-cost estimation is repeated many times to account for uncertainty in the model. This represents the percentage of repetitions producing overall benefits that exceed costs. Programs with a benefit-cost percentage of at least 75% are considered to meet the "cost-beneficial" criterion in the "evidence-based" definition above.

For questions about evidence-based & research-based programs, contact Rebecca Goodvin at Rebecca.Goodvin@wsipp.wa.gov.
For questions about promising practices or technical assistance, contact Ellie Qian at ebpi2536@uw.edu.

Document No. E2SHB2536-9

Washington State Institute for Public Policy

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