

Evidence-Based Practice Institute

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June 2016

## 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 January 13, 2017 for technical corrections

The 2012 Legislature directed the Department of Social and Health Services to...<sup>1</sup>

✓ 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).<sup>2</sup> 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 do not achieve at least a 75% chance of a positive net present value do not meet the benefit-cost test.

The legislation required periodic updates to the inventory. This June 2016 report is the sixth update and reflects changes to the inventory from the promising program applications and WSIPP's ongoing work on systematic research reviews and its benefit-cost model. The next update is anticipated in July 2017 and on an annual basis thereafter.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Engrossed Second Substitute House Bill 2536, Chapter 232, Laws of 2012.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> This schedule was set by the two research groups and is subject to change if necessary.

# Creating the Children's Services Inventory

Our approach to creating the inventory is the same approach we use for legislatively directed inventories in other policy areas.<sup>4</sup> The first step is to estimate the degree to which various public policies and programs can achieve desired outcomes, such as improving high school graduation rates or reducing substance use. For each program or policy, we carefully analyze all high-quality studies from the United States and elsewhere to identify interventions that have been tried, tested, and found to either achieve or not achieve improvements in outcomes. We look for research studies with strong evaluation designs and exclude studies with weak research methods. Using all credible evaluations we can locate on a given program or policy, we then conduct a "meta-analysis" to determine the average effect of the program and a margin of error for that effect.<sup>5</sup> WSIPP's research standards are outlined in the box below.

### **Standards of Research Rigor for Meta-Analysis**

When WSIPP is asked by the legislature to conduct an evidence-based review, we follow a number of steps to ensure a rigorous and consistent analysis. These procedures include the following:

- ✓ We consider all available studies we can locate on a topic rather than selecting only a few; that is, we do not "cherry pick" studies to include in our reviews.
- To be included in our reviews, we require an evaluation's research design include treatment and comparison groups from intent-to-treat samples. Random assignment studies are preferred, but we include quasi-experimental studies when the study uses appropriate statistical techniques. Natural experimental designs, including regression discontinuity and instrumental variables, are also considered.
- ✓ We then use a formal statistical procedure, meta-analysis, to calculate an average "effect size" that indicates the expected magnitude of the relationship between the treatment and the outcome of interest. This is how we determine whether the weight of the evidence indicates outcomes are, on average, achieved.

<sup>&</sup>lt;sup>4</sup> Lemon, M., Pennucci, A., Morris, M., & Nicolai C. (2015). *Updated inventory of evidence- and research-based practices: Washington's K–12 Learning Assistance Program.* (Doc. No. 15-07-2201). Olympia: Washington State Institute for Public Policy.

<sup>&</sup>lt;sup>5</sup> Meta-analysis is an approach to summarize research literature. Unlike a narrative review of the literature, however, this approach produces an empirical estimate to quantify the effect on a given outcome. Our research methods are described in detail in http://www.wsipp.wa.gov/TechnicalDocumentation/WsippBenefitCostTechnicalDocumentation.pdf

The second step is to use the results from our analysis of program effects to determine whether the lifetime benefits of the program exceed the costs to Washington's taxpayers. That is, we conduct a formal benefit-cost analysis.

The third analytical step involves testing the robustness of our results. Any tabulation of benefits and costs involves some degree of uncertainty about future performance. This uncertainty is expected in any investment analysis, whether in the private or public sector. To assess the riskiness of our conclusions, we perform a "Monte Carlo simulation" in which we vary the key factors in our calculations. The purpose of the risk analysis is to determine the odds that the benefits of a particular policy option will exceed the costs. This type of analysis is used by many businesses in investment decision making.

Thus, for each option, we produce two "big picture" findings: expected benefit-cost results (net present values and benefit-cost ratios) and, given our understanding of the risks involved, the odds that the policy will at least have benefits greater than costs.

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

The 2012 legislative assignment directs WSIPP and EBPI to identify evidence-based and researchbased 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.<sup>6</sup> The table on the following page contains the definitions currently in statute prior to the passage of the 2012 law as well as the suggested definitions for evidencebased and research-based developed by the two research entities as required by the law.

<sup>&</sup>lt;sup>6</sup> 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).

## **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.

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 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 K–12 Learning Assistance Program. The criteria are as follows:

1) <u>Heterogeneity.</u> 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.<sup>7</sup> Thus, if the weighted average of program participants in the 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 the studies has been conducted on youth in Washington, and a subgroup analysis demonstrates the program is effective for minorities (p < 0.20).

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

- 2) <u>Weight of evidence</u>. 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).<sup>8</sup> To meet the research-based definition, one single-site evaluation must indicate the practice achieves the desired outcomes (p-value < 0.20).</p>
- 3) <u>Benefit-cost.</u> 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.<sup>9</sup> 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.

If a program is not listed on the inventory, we have not yet had the opportunity to review it. The children's services inventory is displayed at the end of this report and is also available on our website.<sup>10</sup> Further information on the individual programs contained in the inventory can also be found on our website.<sup>11</sup>

<sup>&</sup>lt;sup>7</sup> United States Census Bureau, 2010. Retrieved from http://factfinder2.census.gov/.

<sup>&</sup>lt;sup>8</sup> 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 up to 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. <sup>9</sup> For information about WSIPP's benefit-cost model, see

http://www.wsipp.wa.gov/TechnicalDocumentation/WsippBenefitCostTechnicalDocumentation.pdf

<sup>&</sup>lt;sup>10</sup> http://www.wsipp.wa.gov/ReportFile/1640

<sup>&</sup>lt;sup>11</sup> http://www.wsipp.wa.gov/BenefitCost

# Updates to the Inventory as of June 2016

Since the inventory was published in July 2015, WSIPP reviewed and added 32 programs.

Five of the new programs were classified as evidence-based.

- ✓ Adolescent Diversion Project
- ✓ Cognitive behavioral therapy for juvenile offenders
- ✓ Family-based therapies (non-name brand)
- ✓ Parenting with Love and Limits
- ✓ Wilderness experience programs

Sixteen of the new programs were classified as research-based.

- ✓ Compliance checks for alcohol
- ✓ Education and Employment Training
- ✓ Familias Unidas
- ✓ Family Matters
- ✓ Lions Quest Skills for Adolescence
- ✓ Multicomponent environmental interventions to prevent youth tobacco use
- ✓ Project Northland
- ✓ PROSPER
- ✓ SPORT
- ✓ Stop Now and Plan (SNAP)
- ✓ Strong African American Families
- ✓ Strong African American Families—Teen
- ✓ Teaching-Family (group home model)
- ✓ Teen Intervene
- ✓ Vocational and employment training
- ✓ Youth Villages LifeSet

Eleven of the new programs were classified as promising.

- ✓ Alcohol Literacy Challenge for high school students
- ✓ Athletes Training and Learning to Avoid Steroids (ATLAS)
- ✓ Compliance checks for tobacco
- ✓ ENCOMPASS for ADHD
- ✓ Keepin' it Real
- ✓ King County Family Treatment Court
- ✓ Multicomponent environmental interventions to prevent youth alcohol use
- ✓ Promoting Alternative Thinking Strategies (PATHS)
- ✓ Protecting You/Protecting Me
- ✓ Raising Healthy Children
- ✓ STARS (Start Taking Alcohol Risks Seriously) for Families

Since the last inventory update in July 2015, WSIPP modified the statistical calculations applied to some types of studies and adjusted its benefit-cost methodology.<sup>12</sup> These calculations affected the detailed statistical results for each program. Due to these changes, WSIPP reclassified 15 programs.

Four programs moved from research-based to evidence-based.

- ✓ Parent Child Interaction Therapy (PCIT) for children with disruptive behavior problems
- ✓ Parent Management Training—Oregon Model (treatment population)
- ✓ Triple-P Positive Parenting Program: Level 4, Group
- ✓ Triple-P Positive Parenting Program: Level 4, Individual

Five programs moved from evidence-based to research-based.

- ✓ Functional Family Parole (with quality assurance)
- ✓ Good Behavior Game
- ✓ Multisystemic Therapy for juvenile sex offenders
- ✓ Nurse Family Partnership
- ✓ Safecare

One program moved from promising to evidence-based.

✓ Communities That Care

Two programs moved from promising to research-based.

- ✓ Intensive Family Preservation (HOMEBUILDERS®) for serious emotional disturbance (SED)
- ✓ Triple-P Positive Parenting Program (System)

One program, Coordination of Services, moved from promising to research-based because new research was available for an updated meta-analysis.

Another program, Reconnecting Youth, moved from promising on the program theory of change to "Produces null or poor outcomes" based on inclusion of one large study.

Lastly, we obtained a new cost estimate for one program, Teen Marijuana Check-Up, which moved from research-based to evidence-based.

<sup>&</sup>lt;sup>12</sup> WSIPP's meta-analytic and benefic-cost methods are described in detail in our technical documentation. http://www.wsipp.wa.gov/TechnicalDocumentation/WsippBenefitCostTechnicalDocumentation.pdf

## 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 will be published by July, 2017.

## June 2016 Inventory of Evidence-Based, Research-Based, and Promising Practices

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

Revised January 13, 2017 for technical corrections

Budget area	Program/intervention	Manual	Current definitions	Suggested definitions	Cost- beneficial	Reason program does not meet suggested evidence-based criteria (see full definitions below)	Percent minority
	Intervention						
	Alternatives for Families (AF-CBT)	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Family Search and Engagement	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Fostering Health Futures	Yes	۲	۲		Single evaluation	56%
	Functional Family Therapy (FFT) for children in the child welfare system	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Including Fathers—Father Engagement Program	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Intensive Family Preservation Services (HOMEBUILDERS®)	Yes	•	•	99%		58%
	King County Family Treatment Court	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Multisystemic Therapy (MST) for child abuse and neglect	Yes	۲	۲		Single evaluation	82%
	Other Family Preservation Services (non-HOMEBUILDERS®)	Varies*	Р	0	0%	Weight of evidence	76%
	Parent-Child Assistance Program	Yes	Р	Р		Single evaluation	52%
	Parent-Child Interaction Therapy (PCIT) for families in the child welfare system		•	•	94%		48%
	Parents for Parents		Р	Р		No rigorous evaluation measuring outcome of interest	
lre	Partners with Families and Children		Р	Р		No rigorous evaluation measuring outcome of interest	
Child welfare	Pathway to Reunification	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
Š	SafeCare	Yes	۲	۲	50%	Benefit-cost	33%
hilo	Youth Villages LifeSet	Yes	۲	۲	22%	Benefit-cost	49%
σ	Prevention						
	Circle of Security	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Healthy Families America	Yes	•	۲	51%	Benefit-cost	72%
	Kaleidoscope Play and Learn	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Nurse Family Partnership	Yes	•	۲	58%	Benefit-cost/heterogeneity	20%
	Other home visiting programs for at-risk mothers and children	Varies*	•	۲	63%	Benefit-cost	50%
	Parent Child Home Program	Yes	۲	۲	43%	Benefit-cost	65%
	Parent Mentor Program	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Parents and Children Together (PACT)		Р	Р		No rigorous evaluation measuring outcome of interest	
	Parents as Teachers	Yes	Р	Р	67%	Weight of evidence	80%
	Promoting Alternative Thinking Strategies (PATHS)		Р	Р	63%	Weight of evidence	49%
	Promoting First Relationships		Р	Р		No rigorous evaluation measuring outcome of interest	
	Safe Babies, Safe Moms	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Triple-P Positive Parenting Program (System)	Yes	۲	۲	63%	Benefit-cost	33%

• Evidence-based • Research-based • Promising • Produces null or poor outcomes **NR** Not reported See definitions and notes on page 15.

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

#### Inventory of Evidence-Based, Research-Based, and Promising Practices

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

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Budget area	Program/intervention	Manual	Current definitions	Suggested definitions	Cost- beneficial	Reason program does not meet suggested evidence-based criteria (see full definitions below)	Percent minority
	Adolescent Diversion Project		•	•	97%		58%
	Aggression Replacement Training						
	Youth in state institutions		۲	۲	92%	Heterogeneity	17%
	Youth on probation		۲	۲	91%	Heterogeneity	17%
	Cognitive behavioral therapy	Varies*	•	•	94%		43%
	Moral Reconation Therapy*	Yes					
	Reasoning and Rehabilitation*	Yes					
	Other cognitive behavioral therapy*	Varies*					
	Connections Wraparound	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Coordination of Services	Yes	۲	۲	95%	Heterogeneity	30%
	Dialectical Behavior Therapy	Yes	۲	۲		Single evaluation	27%
	Dialectical Behavior Therapy for substance abuse: Integrated treatment model	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Drug court	Varies*	•	۲	57%	Benefit-cost	38%
	Education and Employment Training (EET, King County)	Yes	۲	۲		Single evaluation	74%
	Family-based therapies (non-name brand)	Varies*	•	•	95%		53%
	Family Integrated Transitions (youth in state institutions)	Yes	۲	۲		Single evaluation	30%^
e	Functional Family Parole (with quality assurance)	Yes	۲	۲	72%	Benefit-cost	46%
stic	Functional Family Therapy	Yes					
Juvenile justice	Youth in state institutions		•	•	99%		18%^
nile	Youth on probation		•	•	99%		18%^
PVL	Juvenile Detention Alternatives Initiative	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
<del>`</del>	Mentoring	Yes	•	•	87%		40%
	Multidimensional Family Therapy (MDFT) for substance abusers	Yes	۲	۲	12%	Benefit-cost	100%
	Multidimensional Treatment Foster Care	Yes	۲	۲	61%	Benefit-cost/heterogeneity	23%
	Multisystemic Therapy	Yes	•	•	75%		52%
	Multisystemic Therapy (MST) for substance abusers	Yes	•	۲	54%	Benefit-cost	63%
	Parenting with Love and Limits	Yes	۲	•	98%		55%
	Scared Straight	Yes	0	0	4%	Weight of evidence	NR
	Sex offender treatment	Varies*					
	Multisystemic Therapy	Yes	•	۲		Benefits & costs cannot be estimated at this time	43%
	Sex offender treatment (non-MST)	Varies*	Р	Р		Weight of evidence	NR
	Step Up		Р	Р		No rigorous evaluation measuring outcome of interest	
	Teaching-Family (group home model)	Yes	۲	۲		Single evaluation	22%
	Therapeutic Communities for substance abusers	Varies*	•	•	76%		58%
	Vocational and employment training	Varies*	۲	۲	55%	Weight of evidence	68%
	Victim offender mediation	Varies*	•	•	78%		71%
	Wilderness experience programs	Varies*	•	•	100%		36%
	You Are Not Your Past	No	Р	Р		No rigorous evaluation measuring outcome of interest	

• Evidence-based • Research-based • P Promising • Produces null or poor outcomes **NR** Not reported See definitions and notes on page 15.

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

#### Inventory of Evidence-Based, Research-Based, and Promising Practices

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

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Budget area	Program/intervention	Manual	Current definitions	Suggested definitions	Cost- beneficial	Reason program does not meet suggested evidence-based criteria (see full definitions below)	Percent minority
	<u>Anxiety</u>						
	Cognitive Behavioral Therapy (CBT) for anxious children (group, individual or remote) $^{\#}$		•	۲	100%	Heterogeneity	20%
	Cool Kids*						
	Coping Cat <sup>*</sup>						
	Coping Cat/Koala book-based model <sup>*</sup>	Yes					
	Coping Koala*	Yes					
	Other Cognitive Behavioral Therapy (CBT) for anxious children*	Varies*					
	Parent Cognitive Behavioral Therapy (CBT) for anxious young children	Varies*	۲	۲	99%	Heterogeneity	26%
	Theraplay	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Attention Deficit Hyperactivity Disorder						
	Behavioral Parent Training (BPT) for children with ADHD		۲	۲	89%	Heterogeneity	10%
	Barkley Model*	Yes					
	New Forest Parenting Programme <sup>*</sup>	Yes					
	Cognitive Behavioral Therapy (CBT) for children with ADHD		0	0	8%	Weight of evidence	24%
	ENCOMPASS for ADHD	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Multimodal Therapy (MMT) for children with ADHD	Varies*	۲	۲	33%	Benefit-cost	37%
	Depression						
	Cognitive Behavioral Therapy (CBT) for depressed adolescents	Varies*	۲	۲	38%	Benefit-cost/heterogeneity	26%
£	Coping with depression—Adolescents*	Yes					
eal	Treatment for Adolescents with Depression Study*	Yes					
<u>عَ</u>	Other Cognitive Behavioral Therapy (CBT) for depressed adolescents*	Varies*					
Mental health	Cognitive Behavioral Therapy (CBT) for depressed children	Yes	•	۲	59%	Benefit-cost	38%
Ae	Blues Program		-	-		<b>B</b>	2001
	(group CBT prevention program for high school students at risk for depression)	Yes	•	۲	41%	Benefit-cost	38%
	Disruptive Behavior (Oppositional Defiant Disorder or Conduct Disorder)						
	Behavioral Parent Training (BPT) for children with disruptive behavior disorders	Varies*					
	Helping the Noncompliant Child	Yes	۲	۲	66%	Benefit-cost/heterogeneity	31%
	Incredible Years: Parent training	Yes	•	۲	54%	Benefit-cost	52%
	Incredible Years: Parent training + child training	Yes	•	۲	13%	Benefit-cost/heterogeneity	22%
	Parent Child Interaction Therapy (PCIT) for children with disruptive behavior problems	Yes	•	•	79%		47%
	Parent Management Training—Oregon Model (treatment population)	Yes	•	•	83%		34%
	Triple-P Positive Parenting Program: Level 4, Group	Yes	•	•	100%		80%
	Triple-P Positive Parenting Program: Level 4, Individual	Yes	•	•	86%		36%
	Other Behavioral Parent Training (BPT) for children with disruptive behavior disorders		۲	۲	89%	Heterogeneity	NR
	Brief Strategic Family Therapy (BSFT)	Yes	•	۲	46%	Benefit-cost	100%
	Choice Theory/Reality Therapy		Р	Р		No rigorous evaluation measuring outcome of interest	
	Families and Schools Together (FAST)		•	۲	49%	Benefit-cost	53%
	Kids Club and Moms Empowerment support groups	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Multimodal Therapy (MMT) for children with disruptive behavior	Varies*	Р	Р	49%	Weight of evidence	7%
	Stop Now and Plan (SNAP)	Yes	۲	۲	4%	Benefit-cost	77%

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

<sup>#</sup>This program is a special analysis for the purpose of this inventory and does not have a program-specific webpage on WSIPP's website.

The classifications in this document are current as of June 2016.

For the most up-to-date results, please visit the program's page on our website http://www.wsipp.wa.gov/BenefitCost

#### Inventory of Evidence-Based, Research-Based, and Promising Practices

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	Fetal Alcohol Syndrome		Revised January 13, 2017 for technical corrections						
	Families Moving Forward	Yes	Р	Р		No rigorous evaluation measuring outcome of interest			
	Serious Emotional Disturbance								
	Multisystemic Therapy (MST) for youth with serious emotional disturbance (SED)	Yes	۲	۲	61%	Benefit-cost	59%		
	Full Fidelity Wraparound for Youth with serious emotional disturbance (SED)	Yes	۲	۲		Benefits & costs cannot be estimated at this time	61%		
~	Intensive Family Preservation (HOMEBUILDERS®) for youth with serious emotional disturbance (SED)		۲	۲		Single evaluation	94%		
health (continued)	Trauma								
tin	ADOPTS (therapy to address distress of post traumatic stress in adoptive children)		Р	Р		No rigorous evaluation measuring outcome of interest			
uo	Child-Parent Psychotherapy	Yes	۲	۲		Single evaluation	9%		
9	Cognitive Behavioral Therapy (CBT)-based models for child trauma	Varies*	•	•	100%		82%		
alt	Classroom-based intervention for war-exposed children*	Yes							
h e	Cognitive Behavioral Intervention for Trauma in Schools*	Yes							
Mental	Enhancing Resiliency Among Students Experiencing Stress (ERASE-Stress)*	Yes							
1er	KID-NET Narrative Exposure Therapy for children*	Yes							
2	Trauma Focused CBT for children*								
	Trauma Grief Component Therapy*								
	Other Cognitive Behavioral Therapy (CBT)-based models for child trauma*								
	Eye Movement Desensitization and Reprocessing (EMDR) for child trauma		•	٠	81%		40%		
	Take 5: Trauma Affects Kids Everywhere—Five Ways to Promote Resilience		Р	Р		No rigorous evaluation measuring outcome of interest			
	Treatment Organizational Approaches								
	Modularized Approaches to Treatment of Anxiety, Depression and Behavior (MATCH)	Yes	۲	۲		Single evaluation	65%		

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Budget area	Program/intervention	Manual	Current definitions	Suggested definitions	Cost- beneficial	Reason program does not meet suggested evidence-based criteria (see full definitions below)	Percent minority
	Child FIRST	Yes	۲	۲		Single evaluation	94%
	Communities That Care	Yes	•	•	80%		33%
	Coping and Support Training	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	49%
	Familias Unidas	Yes	۲	۲	42%	Benefit-cost	100%
	Fast Track prevention program	Yes	۲	۲	0%	Benefit-cost	53%
	Good Behavior Game	Yes	•	۲	71%	Benefit-cost	56%
	Guiding Good Choices (formerly Preparing for the Drug Free Years)	Yes	۲	۲	56%	Benefit-cost	46%
	Mentoring for students: community-based (taxpayer costs only)	Varies*	•	۲	72%	Benefit-cost	78%
	Big Brothers Big Sisters*	Yes					57%
~	Other Mentoring Programs*	Varies*					92%
General prevention	4Results Mentoring	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
.uə	New Beginnings for children of divorce	Yes	۲	۲		Single evaluation	11%
rev	Nurturing Fathers	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
d	Positive Action	Yes	•	•	88%		63%
era	Promoting Alternative Thinking Strategies (PATHS)	Yes	Р	Р	63%	Weight of evidence	49%
jen	PROSPER	Yes	۲	۲	55%	Benefit-cost/heterogeneity	15%
0	Pyramid Model	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Quantum Opportunities Program	Yes	•	۲	61%	Benefit-cost	90%
	Raising Healthy Children	Yes	Р	Р		Single evaluation	18%
	Reconnecting Youth	Yes	0	0	0%	Weight of evidence	92%
	Seattle Social Development Project	Yes	۲	۲		Single evaluation	35%
	Strengthening Multi-Ethnic Families and Communities	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Strengthening Families for Parents and Youth 10-14	Yes	۲	۲	71%	Benefit-cost/heterogeneity	21%
	Strong African American Families	Yes	۲	۲		Single evaluation	100%
	Strong African American Families—Teen	Yes	۲	۲		Single evaluation	100%
	Youth and Family Link	No	Р	Р		No rigorous evaluation measuring outcome of interest	

• Evidence-based • Research-based • Promising • Produces null or poor outcomes **NR** Not reported See definitions and notes on page 15.

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

#### Inventory of Evidence-Based, Research-Based, and Promising Practices

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

Revised January 13, 2017 for technical corrections

Budget area	Program/intervention	Manual	Current definitions	Suggested definitions	Cost- beneficial	Reason program does not meet suggested evidence-based criteria (see full definitions below)	Percent minority
	Prevention						
	Alcohol Literacy Challenge for high school students	Yes	Р	Р		Single evaluation	33%
	Athletes Training and Learning to Avoid Steroids (ATLAS)	Yes	Р	Р		Weight of evidence	22%
	Brief intervention for youth in medical settings	Yes	۲	۲	49%	Benefit-cost	65%
	Compliance checks for alcohol	Varies*	۲	۲		Single evaluation	25%
	Compliance checks for tobacco	Varies*	Р	Р		Single evaluation	28%
	Family Matters	Yes	۲	۲	74%	Heterogeneity	22%
	Keepin' it Real	Yes	Р	Р	62%	Weight of evidence	83%
	Life Skills Training	Yes	•	۲	66%	Benefit-cost	38%
	Lions Quest Skills for Adolescence	Yes	۲	۲	65%	Benefit-cost	74%
	Multicomponent environmental interventions to prevent youth alcohol use	Varies*	Р	Р	27%	Weight of evidence	19%
	Multicomponent environmental interventions to prevent youth tobacco use	Varies*	۲	۲	86%	Heterogeneity	21%
	Project ALERT	Yes	•	۲	64%	Benefit-cost/heterogeneity	12%
	Project Northland	Yes	•	۲	74%	Benefit-cost	36%
Substance abuse	Project STAR	Yes	•	۲	73%	Benefit-cost/heterogeneity	5%
abu	Project SUCCESS	Yes	0	0	41%	Weight of evidence	38%
e	Project Toward No Drug Abuse	Yes	•	۲	57%	Benefit-cost	70%
tan	Protecting You/Protecting Me	Yes	Р	Р		Weight of evidence	92%
sq	SPORT	Yes	۲	۲		Single evaluation	49%
SL	STARS (Start Taking Alcohol Risks Seriously) for Families	Yes	Р	Р		Single evaluation	66%
	Teen Intervene	Yes	•	۲	96%	Heterogeneity	29%
	Treatment						
	Adolescent Assertive Continuing Care	Yes	۲	۲	37%	Benefit-cost/heterogeneity	26%
	Adolescent Community Reinforcement Approach	Yes	۲	۲		Single evaluation	59%
	Dialectical Behavior Therapy for substance abuse: Integrated Treatment Model	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Functional Family Therapy for substance-abusing adolescents (FFT-SA)	Yes	۲	۲		Mixed results	74%
	Matrix Model substance abuse treatment for adolescents	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	MET/CBT-5 for youth marijuana use	Yes	۲	۲		Single evaluation	33%
	Multidimensional Family Therapy for substance abusing youth	Yes	۲	۲	12%	Benefit-cost	100%
	Multisystemic Therapy (MST) for substance-abusing juvenile offenders	Yes	•	۲	54%	Benefit-cost	63%
	Recovery Support Services	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Seven Challenges	Yes	Р	Р		No rigorous evaluation measuring outcome of interest	
	Teen Marijuana Check-Up	Yes	•	•	100%		39%
	Therapeutic communities for substance abusers	Varies*	•	•	76%		58%

• Evidence-based • Research-based • P Promising • Produces null or poor outcomes **NR** Not reported See definitions and notes on page 15

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

#### Inventory of Evidence-Based, Research-Based, and Promising Practices

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

## Definitions and Notes:

#### **Current Law Definitions:**

Evidence-b	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.
Research-l	based:	A program or practice that has some research demonstrating effectiveness, but that does not yet meet the standard of evidence-based practices.
Promising	practice:	A practice that presents, based upon preliminary information, potential for becoming a research-based or consensus-based practice.

#### **Suggested Definitions:**

- 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 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 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.
- <u>Cost-beneficial</u>: A program or practice where the monetary benefits exceed costs with a high degree of probability according to the Washington State Institute for Public Policy.

#### **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, 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. Thus, if the weighted average of program participants in the 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 the studies has been conducted on youth in Washington and a subgroup analysis demonstrates the program is effective for minorities (p < 0.20). Programs passing the second test are marked with a ^.

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

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).

\* Varies: 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.

For questions about evidence-based & research-based programs contact Marna Miller at marna.miiller@wsipp.wa.gov. For questions about promising practices or technical assistance contact Jessica Leith at jmleith@uw.edu.

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Washington State Institute for Public Policy

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