

September 30, 2012

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

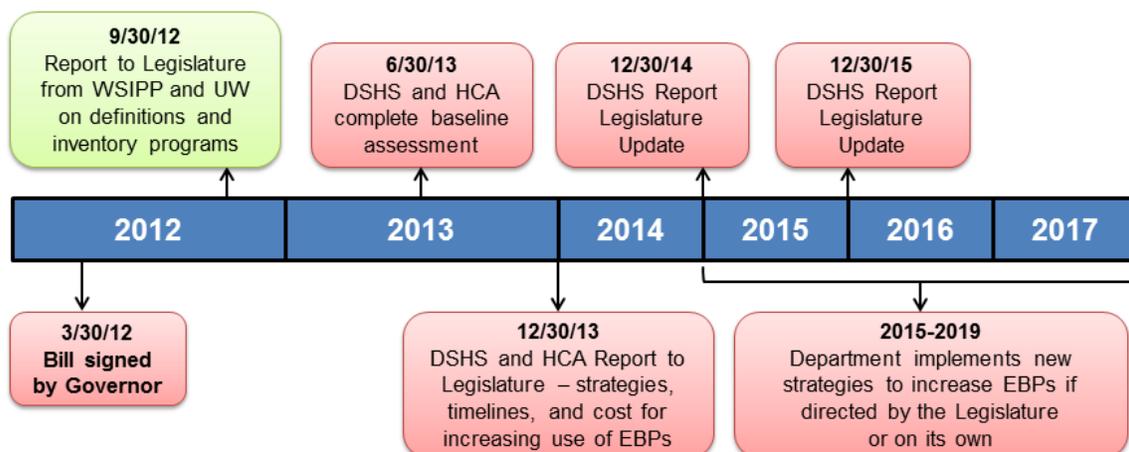
The 2012 Legislature passed E2SHB 2536 with the intention that *“prevention and intervention services delivered to children and juveniles in the areas of mental health, child welfare, and juvenile justice be primarily evidence-based and research-based, and it is anticipated that such services will be provided in a manner that is culturally competent.”*¹

The bill sets up a three-step process.

- ✓ By September 30, 2012, two independent research institutions—the Washington State Institute for Public Policy (WSIPP) and the University of Washington Evidence-Based Practice Institute (UW)—will create an inventory of evidence-based, research-based, and promising practices and services.
- ✓ By June 30, 2013, the Department of Social and Health Services (DSHS) and the Health Care Authority (HCA) will complete a baseline assessment to determine whether their current programs and services are evidence-based or research-based.
- ✓ By December 30, 2013, DSHS and HCA will report to the Governor and the legislature on strategies to increase the “use of evidence-based and research-based practices.” The bill requires annual updates in 2014 and 2015.

Figure 1 depicts the timeframe for the tasks required by the bill.

Figure 1
E2SHB 2536: Implementation Timeline



List of Acronyms

DSHS: Washington State Department of Social and Health Services
UW: Evidence-Based Practice Institute, University of Washington
WSIPP: Washington State Institute for Public Policy
HCA: Washington State Health Care Authority
EBP: Evidence-Based Practice

¹ E2SHB 2536, Chapter 232, Laws of 2012.

This report describes the first of these three steps. Specifically, E2SHB 2536 directs WSIPP and UW, in consultation with DSHS, to complete the following two tasks by September 30, 2012:

- 1) Publish descriptive definitions of evidence-based, research-based, and promising practices and services, and
- 2) Prepare an inventory of evidence-based, research-based, and promising practices and services.

The legislation also requires that WSIPP and UW “periodically update” the inventory “as more practices are identified.”

To implement the first step in the bill, WSIPP and UW staff worked together beginning in May 2012 to create the inventory contained in this report. We initiated a series of meetings with operating agencies, legislative staff, and affected parties to receive input on our assignment. We also responded to invitations from several interest groups² by giving descriptions of the bill and the process.

The legislation, however, directed that our work be completed in a short timeframe.³ Because of this constraint, we encountered two significant barriers.

First, we were not able to develop a full inventory of “promising practices and services,” as this falls outside the scope of our previous work. Second, there was insufficient time for agency representatives and community providers to review the inventory of research-based, evidence-based, and promising practices and services presented in this report.

In order to expand the list of promising practices and allow input from agency representatives and community providers on the inventory, we propose that our first legislatively-required periodic update occur by December 30, 2012. We invite feedback on the inventory we present in this report and suggestions for additional promising practices by December 1, 2012. As described later, we also propose an approach to aid in the identification of promising practices. We believe that conducting the first update shortly after publication of this initial report will more rapidly expand the list of promising programs.

As noted, the legislative intent in E2SHB 2536 anticipates that evidence-based and research-based “*services will be provided in a manner that is culturally competent.*” While E2SHB 2536 did not assign WSIPP and UW the task of defining “culturally competent,” a definition currently exists in the DSHS Washington Administrative Code.⁴

² These groups were: Asian American Counseling and Referral Services, Association of African American Service Providers, Washington State Child Placing Agency Network, Children’s Administration Racial Disproportionality Committee, Children and Family Services Advisory Committee, and Evidence-based Practice Coalition of Washington.

³ E2SHB 2536 was approved by the Governor March 30, 2012, with an effective date of June 7, 2012.

⁴ From WAC 388-865-0150: “Cultural competence” means a set of congruent behaviors, attitudes, and policies that come together in a system or agency and enable that system or agency to work effectively in cross-cultural situations. A culturally competent system of care acknowledges and incorporates at all levels the importance of language and culture, assessment of cross-cultural relations, knowledge and acceptance of dynamics of cultural differences, expansion of cultural knowledge and adaptation of services to meet culturally unique needs.

Definitions

In order to assemble an inventory of evidence-based, research-based, and promising practices, the first task was to define these terms. Definitions already exist in current law and these became the starting point for our process.⁵

Because E2SHB 2536 contains two provisions not incorporated within current-law definitions, it was necessary to develop alternative definitions. The two additional criteria in E2SHB 2536 are the consideration of available systematic evidence and whether a program is cost-effective. Accordingly, to incorporate these two new legislative directives, we developed alternative definitions of evidence-based, research-based, and promising practices that modify current-law definitions.

Table 1 displays the two sets of definitions.

The current-law definition of “evidence-based” includes a requirement that a program or practice be effective “across heterogeneous populations.” However, current law does not define heterogeneity. Given our discussions with legislative staff, we assume that heterogeneity refers to the inclusion of racial and ethnic minority populations (as opposed, for example, to heterogeneity across genders or sexual orientations) within program evaluations, and that this requirement remains important to the legislature. Therefore, we retained the current-law requirement for heterogeneity in our alternative definition of “evidence-based.” In order to build the inventory, we developed specific criteria, described on page 6, for identifying programs that were tested in heterogeneous populations.

The current-law requirement for heterogeneity, along with the legislative direction to consider cost-effectiveness, set the inventory presented in this report apart from lists that have been created by other entities. That is, these additional criteria move some programs that might be described by other entities as “evidence-based” to be classified as “research-based” in the inventory.

For the alternative definitions, we also modified and clarified current-law definitions regarding the type of research and evidence to be considered in making designations. Current-law criterion for “evidence-based” limits consideration to only random assignment studies; our alternative definition of “evidence-based” allows us to consider more programs for the evidence-based category.

- ✓ **Evidence-based.** Under current law, an “evidence-based” designation is restricted to programs with multiple site randomized control studies. While randomized control studies are often regarded as the “gold standard” scientific test, recent research has indicated that randomized trials are not always needed in order to draw practical cause-and-effect conclusions about program effectiveness.⁶ Therefore, our alternative definition includes a broader range of valid research designs. In addition, the alternative definition modifies the current-law requirement for heterogeneity with the phrase “or the intended population.” This allows programs that are directed toward specific populations (e.g., adolescent girls or Latino boys) to be potentially categorized as evidence-based. Finally, to add clarity to the expected impacts of programs and practices, the alternative definition lists specific types of outcomes which must be achieved for a program to be considered evidence-based.
- ✓ **Research-based.** Under current law, a “research-based” designation is restricted to programs with “some research demonstrating effectiveness....” In our alternative definition, we clarify the current-law definition by defining the type of research study that would meet this definition.
- ✓ **Promising practices.** Under current law, a “promising practice” designation includes programs with “preliminary information” indicating “potential for becoming a research-based or consensus-based practice.” In our alternative definition, we clarify the current-law definition by using the phrase “well-

⁵ For evidence-based, see: RCW 71.24.025 (14); 71.36.010 (7); 43.215.146 (1); and 70.305.010 (5). For research-based, see: RCW 71.24.025 (22); 71.36.010 (11); 43.215.146 (3); 70.305.010 (6); and 72.09.015 (23). For promising practices, see: RCW 71.36.010 (9); and 72.09.015 (22).

⁶ Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., Anderson, L. (2012). *Return on investment: Evidence-based options to improve statewide outcomes, Technical Appendix*, section B3.4 (Document No. 12-04-1201B). Olympia: Washington State Institute for Public Policy.

established theory of change.” This qualitative language can help identify innovative and informed practices that have a clear logical foundation.

- ✓ **Consensus-based.** Under current law, there is also a definition of “consensus-based” programs or practices in the mental health statutes, but not in child welfare or juvenile justice statutes. Our assignment under E2SHB 2536 did not direct us to create an inventory of “consensus-based” programs or practices. While the legislature did not ask for an inventory of consensus-based programs or practices for this report, many programs that would be considered consensus-based would likely meet the alternative definition of “promising practices.” As noted later, we recommend that DSHS and HCA compile a list of practices from service providers that may meet the alternative promising practice definition.

As required in E2SHB 2536, in developing the alternative definitions, WSIPP and UW consulted with the two executive agencies identified in the bill, DSHS and HCA. It should be noted, however, that the alternative definitions are those recommended by WSIPP and UW and do not necessarily reflect the preferences of DSHS, HCA, or any other interested stakeholder.

Table 1
Current Law and Alternative Definitions

	Current Law[#]	Alternative
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.”
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.
Cost-beneficial	Not applicable	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.

[#] For evidence-based, see: RCW 71.24.025 (14); 71.36.010 (7); 43.215.146 (1); and 70.305.010 (5). For research-based, see: RCW 71.24.025 (22); 71.36.010 (11); 43.215.146 (3); 70.305.010 (6); and 72.09.015 (23). For promising practices, see: RCW 71.36.010 (9); and 72.09.015 (22).

The Inventory

Once the alternative definitions were developed, the next task was to create an inventory of programs and practices within each definition. To provide flexibility for the legislature, we created two sections in the inventory: one for current-law definitions, and one for the alternative definitions.

The inventory was built primarily from WSIPP's April 2012 report to the legislature describing evidence-based and research-based programs that affect a variety of public policy outcomes.⁷ For more information on WSIPP's research process, see the box below: "Standards of Research Rigor."

From the WSIPP April 2012 list, we reviewed the research literature and placed each program into the definitional categories described in Table 1. The result is the inventory shown in the Appendix⁸ to this report. This inventory is the foundation for DSHS and HCA to complete their upcoming work assignments under E2SHB 2536.

The Appendix table organizes the inventory into the three systems identified in the bill: child welfare, juvenile justice, and mental health. We also include general prevention and substance abuse prevention programs that might be applicable to all of these systems. Within each system, we grouped the programs into categories of practices and services. For example, interventions in mental health are listed by programs targeted toward specific disorders such as anxiety and depression.

For each of the programs listed, we indicate whether the program contains a manual or set of procedures required to operate the program. "Manualized," or name-brand programs, will be easier for DSHS and HCA to identify as the agencies assemble their baseline assessment. For example, Multisystemic Therapy (MST) is a manualized program. If DSHS or HCA currently funds MST, those funds can be easily classified in accordance with the inventory.

For non-manualized programs, on the other hand, additional information will be required from DSHS and HCA and their service providers to classify the program. As described later, this will require interaction between UW and the agencies.

Standards of Research Rigor

Most of the programs included in this inventory were analyzed in work originally conducted by WSIPP. See: Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., Anderson, L. (2012). *Return on investment: Evidence-based options to improve statewide outcomes* (Document No. 12-04-1201). Olympia: Washington State Institute for Public Policy.

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

- 1) 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.
- 2) To be included in our reviews, we require that 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.
- 3) We then use a formal statistical procedure, meta-analysis, to calculate an average "effect size," which indicates the expected magnitude of the relationship between the treatment and the outcome of interest. That is, we determine whether the weight of the evidence indicates outcomes are, on average, achieved.

⁷ Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., Anderson, L. (2012). *Return on investment: Evidence-based options to improve statewide outcomes* (Document No. 12-04-1201). Olympia: Washington State Institute for Public Policy.

⁸ http://www.wsipp.wa.gov/rptfiles/E2SHB2536_Appendix.pdf

In the Appendix table, each program is designated as evidence-based, research-based, or promising according to both the current law and alternative definitions. To assemble the inventory, we needed to specify the criteria within each of the definitions. The table also contains the reasons some programs did not meet the alternative evidence-based definition. These reasons are:

- 1) Heterogeneity. To be designated as evidence-based under current law or the alternative definition, a program must have been tested on a “heterogeneous” population. We operationalized heterogeneity in two ways. First, the proportion of program participants belonging to ethnic/racial minority groups must be greater than or equal to the proportional of minority children in Washington State aged 0 to 17.⁹ From the 2010 Census, for children aged 0 to 17 in Washington, 68% were white and 32% belonged to ethnic/racial minority groups.¹⁰ Thus, if the weighted average of program participants in the outcome evaluations of the program had at least 32% ethnic/racial minority children, then the program was 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 has been conducted on youth in Washington and a subgroup analysis demonstrates the program is effective for ethnic/racial minorities ($p \leq .2$).

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

- 2) Benefit-cost. The WSIPP benefit-cost model was used to determine whether a program meets this criterion. Programs that do not achieve 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.
- 3) Mixed results within an outcome. If findings within an outcome area (e.g., crime) have mixed results from different measures, (e.g., undesirable outcomes for felony convictions and desirable outcomes for misdemeanor convictions) the program does not meet evidence-based criteria.
- 4) Program cost. A program cost was not available to WSIPP at the time of the inventory. Thus, WSIPP could not conduct a benefit-cost analysis.
- 5) Single evaluation. The program does not meet the minimum standard of multiple evaluations or one large multiple-site evaluation contained in the current or alternative definitions.
- 6) Weight of evidence. Results from a random effects meta-analysis ($p > .10$) indicate that the weight of the evidence does not support desired outcomes, or results from a single large study indicate the program is not effective.
- 7) Research on outcomes not yet available. The program has not yet been tested with a rigorous outcome evaluation.

If a program is **not** listed on the inventory, we have not yet had the opportunity to review it. If a program **is** listed on the inventory but does not meet any of the criteria for evidence-based, research-based or promising, then the program is ineffective or has adverse effects and should not be used if the goal is to achieve one of the outcomes identified in the alternative evidence-based definition.

⁹ For meta-analyzed programs the weighted average minority populations of the individual studies were computed using the sample size as weights.

¹⁰ United States Census Bureau, 2010. Retrieved from: <http://www.ofm.wa.gov/pop/census2010/default.asp>

Promising Practices

Consensus-based practices. During the definition and inventory process, we met with several groups of providers who serve ethnic/racial minority populations. Many shared a concern about the absence of “consensus-based” in the definitions. This concern was expressed because for years many practitioners in these communities have been using a variety of cultural and community-approved practices that consensus deems effective. However, as noted earlier, our assignment under E2SHB 2536 did not direct us to create an inventory of “consensus-based” programs or practices. While the legislature did not ask for an inventory of consensus-based programs or practices for this report, many programs that would be considered consensus-based would likely meet the alternative definition of “promising practices.” The UW and WSIPP encourage cultural adaptations of evidence-based practices, as well as the use of cultural or traditional practices that can be proven effective.

Identifying Additional Promising Practices. The current inventory in the Appendix table includes only six programs that are categorized as promising practices. In order to meet the September 30, 2012 deadline, we had to rely on WSIPP’s previous work related to evidence-based programs. In the past, we have concentrated on programs and policies where strong research evidence is available. Thus, we have screened studies using standards of research rigor and have not cast a wide net looking for programs that solely have a well-established theory of change, or only have preliminary research.

However, the pool of programs and practices in Washington that can meet the promising definition may be extensive. As we have learned in our discussions with community leaders, many of these potentially promising programs focus on specific ethnic/racial minority populations. The legislators drafting E2SHB 2536 were aware of this and established expectations that the implementation reports from DSHS and HCA in future years include strategies to identify programs that are effective with ethnically diverse communities. The bill directed the agencies to consult with tribal governments, experts within ethnically diverse communities, and community organizations that serve diverse communities.

Therefore, we recommend two steps that will help move Washington forward in learning about existing promising programs and practices, and also increase the evidence regarding effectiveness.

- 1) Expand the inventory to include additional promising practices. Under E2SHB 2536, DSHS and the HCA will complete a baseline assessment of evidence-based and research-based practices in the areas of child welfare, juvenile rehabilitation, and children’s mental health services. As the agencies conduct these assessments, they will be reviewing service contracts in detail, and will likely communicate with providers to learn about their specific programs. As part of that process, we recommend that community providers, DSHS, and HCA identify programs and practices that might meet the promising definition and prepare a list of potential promising practices. The UW and WSIPP can then determine whether the recommended items meet the promising practice criteria and can be added to the inventory in the Appendix table.
- 2) Provide technical assistance on the pathway to becoming evidence-based. Considering that one goal of this legislation is to encourage the use of research- and evidence-based practice, promising practices identified by DSHS, HCA, or community providers should also be evaluated for their potential to move toward the research- and evidence-based categories.

The UW will engage in a dialogue with providers to determine the potential of each promising practice. Through a supportive consultation process, the UW and community providers with promising practices will work together to move practices toward the “research-based” category. Similarly, for those agencies that want to integrate research- or evidence-based practices into their existing cultural or traditional practices, the UW will consult on potential pathways for training and capacity building necessary for implementation of evidence- and research-based practices.

The number of providers or organizations that will have access to this support is still unknown and will be determined by the resources available to complete such a process. Assuming that the number of agencies with access to this support is limited, the UW will engage in a selection process. The details of this selection process, as well as contingency plans for providers or organizations who do not receive UW consultation are forthcoming. Of course, the University

remains a public resource, and it is always happy to provide assistance in the form of access to research on program implementation, and may organize some form of peer-to-peer support option among community providers.

Summary and Next Steps

This report transmits to DSHS and HCA the legislative assignment for WSIPP and UW to prepare an inventory of evidence-based, research-based and promising practices and services. In preparing this inventory we identified additional steps that will help the agencies comply with their legislative assignments under E2SHB 2536.

- ✓ **Agency Technical Review.** WSIPP and UW propose a meeting with DSHS and HCA in October 2012 to discuss the inventory and share additional information that agencies may need to complete the next phase of their legislative assignments.
- ✓ **Identify Additional Promising Practices.** As noted earlier, we recommend that DSHS and HCA solicit information from providers regarding programs and practices that potentially meet the promising practices definition and prepare a list of potential promising practices. The UW and WSIPP can then determine whether the recommend items meet the promising practice criteria and can be added to the inventory in the Appendix.
- ✓ **First Periodic Update.** As noted on page 2, because of the tight timeline for this report, we are recommending that the first periodic update of the inventory occur by December 30, 2012. To meet this suggested deadline for the first update, we invite feedback on the inventory and suggestions for additional promising practices by December 1, 2012.
- ✓ **Non-Manualized Programs.** As DSHS and HCA assemble their inventories of evidence- and research-based programs, they will likely encounter some programs that do not have a standard manual available. In those cases, the agencies should consult with the UW to determine the category in which those programs belong.

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