WASHINGTON STATE PREVENTION PROGRAMS AND PRACTICES FOR YOUTH MARIJUANA USE PREVENTION

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Washington State Department of Social and Health Services
Behavioral Health and Service Integration Administration
Division of Behavioral Health and Recovery
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  Jennifer A. Bailey, Ph.D., & Daniel Gangon, graduate student;

• **Washington State University;** Laura Griner Hill, Ph.D.; Brittany Rhoades Cooper, Ph.D.; Angie Funaiole,
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• **Pacific Institute for Research and Evaluation,** Sean Hanley, Ph.D.;

• **Washington State Prevention Research Subcommittee;** and

• **Washington State Division of Behavioral Health and Recovery,** Ge (Grace) Hong, Ph.D., Lyz Speaker, MS
**PROCESS AND METHODOLOGY**

**INTRODUCTION**
In November 2012, Washington voters passed Initiative 502 (I-502) which established a system, overseen by the Washington State Liquor Control Board, to license, regulate, and tax the production, processing, and wholesale retail sales of marijuana. It created a dedicated marijuana fund (later renamed Dedicated Marijuana Account), consisting of excise taxes, license fees, penalties, and forfeitures and specifies the disbursement of this money for a variety of health, education, and research purposes with the remainder distributed to the state general fund. In 2015 of the Legislative session 2E2SHB 2136 was passed which amended the respective RCW 69.50.530. The Division of Behavioral Health and Recovery is directed to implement substance abuse prevention programs using a disbursement of these funds.

Figure 1

<table>
<thead>
<tr>
<th>These requirements are outlined in 2E2SHB 2136:</th>
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<tbody>
<tr>
<td>(a)(i) Up to fifteen percent to the department of social and health services division of behavioral health and recovery for the development, implementation, maintenance, and evaluation of programs and practices aimed at the prevention or reduction of maladaptive substance use, substance-use disorder, substance abuse or substance dependence, as these terms are defined in the Diagnostic and Statistical Manual of Mental Disorders, among middle school and high school age students, whether as an explicit goal of a given program or practice or as a consistently corresponding effect of its implementation, mental health services for children and youth, and services for pregnant and parenting women; PROVIDED, That:</td>
</tr>
<tr>
<td>(A) Of the funds appropriated under (a)(i) of this subsection for new programs and new services, at least eighty-five percent must be directed to evidence-based or research-based programs and practices that produce objectively measurable results and, by September 1, 2020, are cost-beneficial; and</td>
</tr>
<tr>
<td>(B) Up to fifteen percent of the funds appropriated under (a)(i) of this subsection for new programs and new services may be directed to proven and tested practices, emerging best practices, or promising practices.</td>
</tr>
<tr>
<td>(ii) In deciding which programs and practices to fund, the secretary of the department of social and health services must consult, at least annually, with the University of Washington’s social development research group and the University of Washington’s alcohol and drug abuse institute.</td>
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The process for developing a comprehensive list of evidence-based marijuana prevention programs to meet this directive has been ongoing and collaborative. The following will describe each step in the rigorous review process of how the final list of Prevention Programs and Practices for Youth Marijuana Use Prevention were identified.
THE PRELIMINARY EVIDENCE-BASED PROGRAM LIST

In order to begin the process of identifying a preliminary list of youth marijuana use prevention programs, Washington State Department of Social and Health Services (DSHS) Division of Behavioral Health and Recovery (DBHR) requested Technical Assistance from the federal Substance Abuse and Mental Health Services Administration’s Collaborative for the Application of Prevention Technologies (SAMHSA’s CAPT) Western Resource Team. Kristen Gabrielsen, MPH, conducted the search, and Joyce Hartje, an evaluator with the Center for the Application of Substance Abuse Technologies (CASAT) verified information related to comparison groups, validity of the study designs, and the effects.

The search criteria for these programs included: publication in at least one study that met the following criteria: [Positive] marijuana prevention outcomes in youth ages 12-17 and young adults ages 18-20; use of a comparison group in study design; accounts for threats to external validity of study (selection bias, sample bias, and baseline equivalency, statistical control, and assigned to conditions (in quasi-experimental studies); accounts for threats to internal validity of study (attrition rates and fidelity in implementation); and demonstrates sustained outcomes. Twenty programs met these criteria.

In July 2013, in collaboration with the University of Washington’s Social Development Research Group (UW SDRG), 13 out of 20 programs identified by the CAPT showing marijuana prevention outcomes in youth (ages 12-17) and young adults (ages 18-20) were identified. A few programs remained under review that were not included on the preliminary list (i.e., Strengthening Families Program: For Parents and Youth 10-14, and Communities That Care).

September 2014\(^1\) the Washington State Institute of Public Policy (WSIPP) published a report reviewing the programs we identified on the Preliminary List. In October 2014\(^2\), WSIPP revised and updated this their report.

**Figure 2**

<table>
<thead>
<tr>
<th>WSIPP’s Evidence-Based, Research-Based, and Promising Program Descriptions</th>
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<tr>
<td><strong>Evidence-Based Programs</strong></td>
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<tr>
<td>- Tested in heterogeneous or intended populations;</td>
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<td>- Multiple randomized and/or statistically-controlled evaluations, or one large multiple-site randomized and/or statistically-controlled evaluation;</td>
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<tr>
<td>- Weight of the evidence from a systematic review demonstrates sustained improvements in at least one of the desired outcomes;</td>
</tr>
<tr>
<td>- Can be implemented with a set of procedures to allow successful replication in Washington; and</td>
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<tr>
<td>- Is cost-beneficial.</td>
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IDENTIFYING YOUTH MARIJUANA USE RELATED RISK AND PROTECTIVE FACTORS

The next step expanded the list through investigation of other programs that had direct impacts on risk factors that could lead to youth marijuana use.

Grace Hong, Ph.D., and Lyz Speaker, MS, at DBHR conducted a path analysis with input from the Washington State Prevention Research Subcommittee and Kevin Haggerty, Ph.D., to identify the most salient underlying risk and protective factors relating to youth marijuana use among 8th and 10th grade students using 2012 Healthy Youth Survey data. The Path Analysis Model, Figure 3, is below and identifies the strength and direction of relationships between risk and protective factors and behavior outcomes. The Washington State Prevention Research Subcommittee has reviewed and vetted the conclusions of the analysis.

Figure 3

THE PATH ANALYSIS CONCLUSIONS:

- All domains (family, school, community, peer/individual) included risk and protective factors that predicted marijuana use.
- Family drug-specific (e.g., Parental attitudes towards drug use) and peer/individual drug-specific factors (e.g., friends’ use of drugs, perceived risks of drug use, favorable attitudes towards drug use and intention to use drugs) showed the strongest links to marijuana use.
- Community factors (e.g., norms favorable to drug use, perceived availability of drugs, perceived availability of handguns) and family general factors also had significant indirect links to youth marijuana use through their association with peer and individual drug-specific factors.
• Academic failure and general family factors (e.g., family management skills, opportunities for pro-social involvement, rewards for pro-social involvement) were also predictive.
• No apparent difference by gender, grade, or race/ethnicity.

Table 1

<table>
<thead>
<tr>
<th>Risk and Protective Factors Identified for Youth Marijuana Use Prevention Program Search as Identified by Path Analysis in Figure 3</th>
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<tbody>
<tr>
<td>• Individual/peer favorable attitudes toward drug use</td>
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<tr>
<td>• Individual/peer perceived risks for drug use</td>
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<tr>
<td>• Individual/peer intentions to use drugs</td>
</tr>
<tr>
<td>• Peer use of drugs</td>
</tr>
<tr>
<td>• Parental favorable attitudes toward drug use</td>
</tr>
<tr>
<td>• Family management</td>
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<tr>
<td>• Any substance use outcomes (added to the search later)</td>
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Criteria for Determining Marijuana Prevention Programs List

Prevention Science group from Washington State University (WSU) led by Brittany Rhoades Cooper, Ph.D., searched for programs with direct impact on these marijuana-related risk and protective factors listed on SAMHSA’s National Registry of Evidence-based Programs and Practices (NREPP) & Blueprints for Healthy Youth Development (Blueprints). The criteria below were used to identify effective and well researched programs that DBHR could use specifically for funding to address youth marijuana use, misuse, and abuse prevention.

WSU provided a comprehensive list of programs that included NREPP programs that met the following initial criteria:
• NREPP listed;
• Experimental design;
• Had evidence of impacting one or more of the identified risk and protective factors for youth marijuana use or substance use outcomes as listed in Table 1; and
• Overall Quality of Research (QOR) of 3.0 or above on all relevant outcomes AND overall readiness for dissemination rating of 3.0 or above.
  o If quasi-experimental design, overall QOR of 3.0 or above AND 2.5 or above on confounds, QOR for all relevant outcomes AND overall readiness for dissemination rating of 3.0 or above.

Based on these criteria, WSU identified 35 programs from NREPP. WSU also reviewed Blueprints for programs ranked as “model” or “promising” with evidence of impacting one or more of the identified risk and protective factors for youth marijuana use or substance use outcomes as listed in Table 1. This resulted in an addition of 20 programs from Blueprints; for a grand total of 55 programs identified by WSU.

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3 Substance Abuse and Mental Health Services Administration’s (SAMHSA’s) National Registry for Evidence Based Programs and Practices (NREPP) program database, http://nrepp.samhsa.gov/Search.aspx
UW SDRG produced a summary of the recommendations related to the programs that address underlying risk and protective factors for marijuana use. The following seven (7) Promising Programs with single substance outcomes were included in this review and recommended by UW SDRG for inclusion:

**ADDITIONAL PROMISING PROGRAMS**

1. Alcohol Literacy Challenge (ALC)
2. Community Trials Intervention to Reduce High-Risk Drinking (adapted for marijuana)
3. Family Matters
4. Parent Management Training
5. Project Towards No Tobacco Use
6. Protecting You/Protecting Me
7. Start Taking Alcohol Risks Seriously (STARS) for Families

**UW SDRG REVIEW & RECOMMENDATION CRITERIA**

- Program has already demonstrated marijuana specific outcomes and is aligned with the WSIPP review.
- Program addresses earlier developmental risk and protective factors.
  - Separate out programs that focus on older age programs (i.e., high school/college age).
- Program needs to demonstrate outcomes on multiple risk factors, especially if attitude/intentions are the outcomes.
- Program evaluations are consistent with Blueprints and include more than just pre-post change.
- Program shows no harmful effects in literature, especially related to marijuana use.
- Program has been independently evaluated, rather than as a booster or part of system.
- Identify and separate programs that are focused on single substances only programs (e.g. alcohol or tobacco only programs).

**UW SDRG SORTED THE PROGRAMS PROVIDED BY WSU INTO THE FOLLOWING CATEGORIES**

- Programs already reviewed by DBHR/WSIPP for marijuana outcomes.
- Program reviews by WSU from NREPP on early risk factors/substance abuse.
- Program reviews by WSU of Blueprints programs.
- Program reviews by WSU focused on older aged youth 14-24.
- Program reviews by WSU that focus on single substance outcomes (alcohol only or tobacco only programs) with the exception of Family Matters.

UW SDRG provided information and notes on recommended programs, questionable programs (needing more investigation due to lack of enough information to make a definitive recommendation and likely would not hold up to a WSIPP review), and programs that were not recommended (for not meeting at least one of the review and recommendation criteria).

This yielded a total of 35 recommended programs for final DBHR review. In consultation with WSU and UW SDRG, DBHR used this summary to make the determination for the final program list.

**FINAL DETERMINATION OF PROGRAMS FOR THE LIST**

DBHR reviewed the recommendations, comments, and notes provided by UW SDRG using WSU’s search and ranking process. UW SDRG’s very thorough assessment enabled a positive experience and rapid
review by DBHR. DBHR selected programs that were recommended by UW SDRG and did not include programs that were questionable or not recommended. DBHR has decided, at this time, to exclude programs that were found by WSU and recommended by UW SDRG that do not have “substance abuse prevention area of interest” or “substance abuse outcomes” as indicated on NREPP.

The Environmental programs and strategies were identified using what we know about research-based alcohol prevention strategies and strategies published in Community-based environmental strategies to prevent non-medical use of marijuana: A review of the literature which discusses the research about environmental strategies related to youth marijuana prevention. DBHR consulted with the Pacific Institute for Research and Evaluation for consultation on the Environmental Programs. Sean Hanley, Ph.D., agreed with the strategies that we selected and recommended adding Reward and Reminder along with Purchase Survey efforts.

DBHR will use these collaborative findings to inform our prevention work across the state and specifically in our efforts using the Dedicated Marijuana Account funding related to community prevention services, home visiting, and EBP training. Additionally, DBHR is using this information to inform the work with Tribal prevention programs.

The final list of programs and strategies is titled “Prevention Programs and Practices for Youth Marijuana Use Prevention,” found on page 9 of this report.

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5 The following programs were identified, but removed from this list due to various reasons. WSIIP report demonstrated less than 50% cost benefit ratio or mixed results: Caring School Community, InShape and Positive Family Support- Family Check-Up, Project Alert, Project Success, Project Toward not Drug Abuse. Research not available: Project Venture, Red Cliff Wellness School Curriculum.

6 The Good Behavior Game PAX version is not listed to have a substance abuse prevention area of interest on NREPP, however Good Behavior Game is, and consultation has taken place with the PAX version developer and the exception has been made in this case to include the PAX version on this list.

PREVENTION PROGRAMS AND PRACTICES FOR YOUTH MARIJUANA USE PREVENTION
(FOR DMA CPWI ENHANCEMENT SERVICES)

Note: No less than 85% of DMA funds can be used to support Evidence-Based and Research-Based Programs and no more than 15% of DMA funds can be used to support Promising Programs from the list below.

**EVIDENCE-BASED & RESEARCH-BASED PROGRAMS (14)**

- Good Behavior Game (GBG)*
- Nurse Family Partnership (NFP)*
- Brief Strategic Family Therapy
- Case Management in Schools* (Communities in Schools, City Connects, and Comer School Development Program) (see note below)
- Guiding Good Choices*
- Incredible Years*
- Keepin it Real
- Life Skills Training - Middle School
- Lions Quest Skills for Adolescence*
- Mentoring for students: Community-based* (Across Ages, Big Brothers Big Sisters, The Buddy System, Career Beginnings, Sponsor-a-Scholar, and Washington State Mentors program/Mentoring Works Washington. Locally developed programs may be considered but require DBHR approval and consultation with WA Mentors.)
- Project Northland (Class Action may be done as booster)
- Project STAR
- SPORT Prevention Plus Wellness
- Strengthening Families Program: For Parents and Youth 10-14 (Iowa Version) *

**PROMISING PROGRAMS (11)**

- Athletes Training & Learning to Avoid Steroids
- Communities that Care
- Coping Power
- Curriculum-Based Support Group (CBSG) Program*
- Familias Unidas
- Positive Action*
- Project Toward No Drug Abuse
- PROSPER
- Raising Healthy Children (using SSDP model)
- Strong African American Families
- Teen Intervene

**ENVIRONMENTAL STRATEGIES (PROMISING) (4)**

- Policy Review and Development
- Purchase Surveys coupled with Reward and Reminder
- Restrictions at Community Events
- Social Norms Marketing

Notes:
(*)These programs are also programs with Mental Health Promotion areas of interest and outcomes as found on NREPP.

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6 Case management involves placing a full-time social worker or counselor in a school to help identify at-risk students’ needs and connect students and families with relevant services in and outside of the K–12 system. Three such models have been evaluated and are included in this analysis: Communities in Schools, City Connects, and Comer School Development Program. In practice, each of these models includes other services, but the program evaluations focus on the impact of the case management component.
For DMA supported Community Wellness and Prevention Initiative (CPWI) and Substance Abuse Prevention Expansion services the following are also permitted in addition to the 29 programs on page 9. As noted on page 7 of this report, these programs focus on single substance outcomes but have outcomes on risk factors salient to youth marijuana use.

**ADDITIONAL PROMISING PROGRAMS (FOR DMA CPWI & SUBSTANCE ABUSE PREVENTION EXPANSION SERVICES)**

| Additional Promising Programs (7)                                                                 |
|                                                                                                  |
| 1. Alcohol Literacy Challenge (ALC)                                                              |
| 2. Community Trials Intervention to Reduce High-Risk Drinking (adapted for marijuana)             |
| 3. Family Matters                                                                                 |
| 4. Parent Management Training                                                                      |
| 5. Project Towards No Tobacco Use                                                                 |
| 6. Protecting You/Protecting Me                                                                  |
| 7. Start Taking Alcohol Risks Seriously (STARS) for Families                                    |
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