Washington State

Programs & Practices for Youth Marijuana Use Prevention

Behavioral Health Administration
Division of Behavioral Health and Recovery

Washington State Department of Social & Health Services
Transforming lives
DSHS 22-1661 (6/16)

Acknowledgements

The Washington State Department of Social and Health Services (DSHS), Division of Behavioral Health and Recovery (DBHR) convened the following group of individuals for consultation, program search and review.

- **University of Washington's Social Development Research Group,** Kevin Haggerty, Ph.D.; Rico Catalano, Ph.D.; Jennifer A. Bailey, Ph.D.; & Daniel Gangon, graduate student
- **Washington State University,** Laura Griner Hill, Ph.D.; Brittany Rhoades Cooper, Ph.D.; Angie Funaiole, graduate student; and Eleanor Dizon, graduate student
- **Washington State Institute for Public Policy,** Annie Pennucci, Interim Director; Adam Darnell, Ph.D.; Marna Miller, Ph.D.; and Matt Lemon, Research Associate
- **Pacific Institute for Research and Evaluation,** Sean Hanley, Ph.D.
- **Washington State Prevention Research Subcommittee**
- **Washington State DSHS Division of Behavioral Health and Recovery,** Sarah Mariani, Behavioral Health Administrator; Julia Havens, Prevention System Implementation Manager; Ge (Grace) Hong, Ph.D.; and Lyz Speaker, MS

We would like to thank these individuals and groups for their contributions and overall generous support for assisting DBHR in this project.

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PROCESS AND METHODOLOGY

INTRODUCTION

In November 2012, Washington voters passed Initiative 502 (I-502) which established a system, overseen by the Washington State Liquor and Cannabis 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.

The Washington State Department of Social and Health Services' (DSHS) Division of Behavioral Health and Recovery (DBHR) is directed to implement substance abuse prevention and treatment programs using a disbursement of funding for implementation of Initiative 502 (I-502) as authorized in Chapter 4, Laws of 2015 (2nd Special Session); 2E2SHB 2136.

Figure 1

These requirements are outlined in 2E2SHB 2136:

(a)(i) Up to 15 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:

(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

(B) Up to 15percent 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.

(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.

The process for developing a comprehensive list of evidence-based marijuana prevention programs to meet this directive has been ongoing and collaborative. The intent of our review was to: meet the statute requirements; focus on primary prevention in multiple settings; address risk and protective factors and realize outcomes; and ensure the availability of multiple relevant and culturally competent programs. 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.

Additional evidence-based programs for general substance use prevention and mental health promotion can be found in DBHR's Excellence in Prevention online searchable database: www.theathenaforum.org/learning_library/ebp.

THE PRELIMINARY EVIDENCE-BASED PROGRAM LIST

In order to begin the process of identifying a preliminary list of youth marijuana use prevention programs, (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 for Public Policy (WSIPP) published a report reviewing the programs identified on the Preliminary List. In October 2014[2], WSIPP revised and updated this report.

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1 Hanley, S., & Aos, S. (2014). Preventing youth substance use: A review of thirteen programs. (Doc. No. 14-09-3201). Olympia: Washington State Institute for Public Policy. http://www.wsipp.wa.gov/ReportFile/1562/Wsipp_Preventing-Youth-Substance-Use-A-Review-of-Thirteen-Programs_Report.pdf

2 Lemon, M., Pennucci, A., Hanley, S., & Aos, S. (2014). Preventing and treating youth marijuana use: An updated review of the evidence. (Doc. No. 14-10-3201). Olympia: Washington State Institute for Public Policy. http://www.wsipp.wa.gov/ReportFile/1571/Wsipp_Preventing-and-Treating-Youth-Marijuana-Use-An-Updated-Review-of-the-Evidence_Report.pdf

Figure 2

WSIPP's Evidence-Based, Research-Based, and Promising Program Descriptions

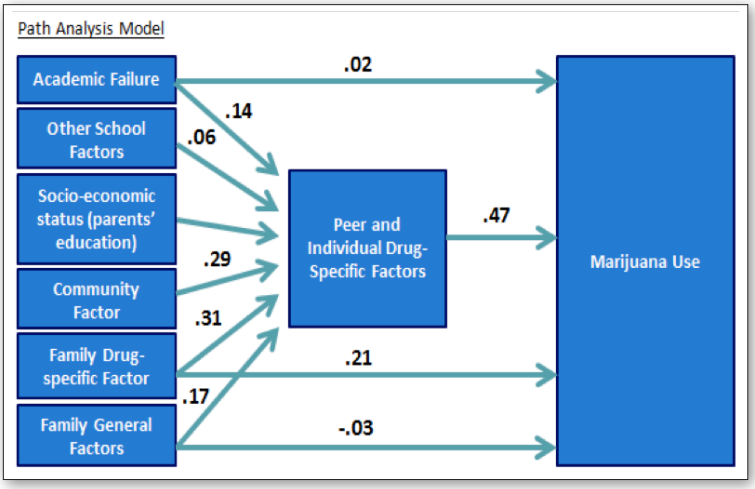
Evidence-Based Programs	Research-Based Programs	Promising Programs
- Tested in heterogeneous or intended populations; - Multiple randomized and/or statistically-controlled evaluations, or one large multiple-site randomized and/or statistically-controlled evaluation; - Weight of the evidence from a systematic review demonstrates sustained improvements in at least one of the desired outcomes; - Can be implemented with a set of procedures to allow successful replication in Washington; and - Is cost-beneficial.	- Tested with a single randomized and/or statistically controlled evaluation; and - Demonstrates sustained desirable outcomes; or where the weight of the evidence from a systematic review supports sustained outcomes as identified in the term "evidence-based," but does not meet the full criteria for "evidence-based".	- Based on statistical analyses or a well-established theory of change; - Shows potential for meeting the "evidence-based" or "research-based" criteria; and - Could include the use of a program that is evidence-based for outcomes other than the alternative use.

IDENTIFYING YOUTH MARIJUANA USE RELATED RISK AND PROTECTIVE FACTORS

In an effort to ensure relevant and culturally appropriate programs, 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, 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, and 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, and rewards for pro-social involvement) were also predictive.*
- *No apparent difference by gender, grade, or race/ethnicity.*

Risk and Protective Factors Identified for Youth Marijuana Use Prevention Program Search

As Identified by Path Analysis in Figure 3

- Individual/peer favorable attitudes toward drug use
- Individual/peer perceived risks for drug use
- Individual/peer intentions to use drugs
- Peer use of drugs
- Parental favorable attitudes toward drug use
- Family management
- Any substance use outcomes (added to the search later)

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[3] (NREPP) & Blueprints for Healthy Youth Development[4] (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.
  - 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/01_landing.aspx

4 Blueprints for Healthy Youth Development program database, http://www.blueprintsprograms.com/

UW SDRG produced a summary of the recommendations related to the programs that address underlying risk and protective factors for marijuana use and additional Promising Programs with single substance outcomes for inclusion in this review.

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).*

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 for and likely would not meet criterion for EBP in a a WSIPP review) and programs that were not recommended (based on 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[5].

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[6].

The Environmental programs and strategies were identified using 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*[7] 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 nine of this report.

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5 The following programs were identified, but removed from this list due to various reasons. WSIPP 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. 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.

7 Quinlan, K., Valenti M., Barovier I., Rots G., & Harding W. (2014) Community-based environmental strategies to prevent non-medical use of marijuana: A review of the literature. Education Development Center, Inc., Waltham, MA, USA. 2014. Drugs: education, prevention and policy, Early Online: 1-18 @ 2014 Informa UK Ltd.

MAY 2016 UPDATE

In May 2016, this program list was revised using updated information from WSIPP's program review of cost benefits, outcome results, and overall consideration of dissemination availability. The programs listed on page nine reflect the updated program list. The list will be reviewed and updated annually.

PREVENTION PROGRAMS AND PRACTICES FOR YOUTH MARIJUANA USE PREVENTION

The following is a list of prevention programs identified.

Note *According to RCW 69.50.545: No less than 85 pecent of DMA funds can be used to support Evidence-Based and Research-Based Programs and no more than 15 percent of DMA funds can be used to support Promising Programs from the list below. DBHR will use this list to determine which programs are eligible for specific funding opportunities.*

EVIDENCE-BASED & RESEARCH-BASED PROGRAMS

- Communities That Care (CTC)
- Community-based Mentoring* *(Across Ages, Big Brothers Big Sisters, The Buddy System, Career Beginnings, Sponsor-a-Scholar, and Mentoring Works Washington.) Locally developed programs may be considered but require DBHR approval and consultation with Mentoring Works WA.*
- Good Behavior Game (GBG)*
- Guiding Good Choices*
- Incredible Years*
- LifeSkills Training - Middle School *(Botvin version; Grades 6, 7, and 8)*
- Lions Quest Skills for Adolescence*
- Nurse Family Partnership (NFP)*
- Positive Action*
- 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

- Athletes Training & Learning to Avoid Steroids
- Coping Power
- Curriculum-Based Support Group (CBSG) Program*
- Familias Unidas
- Keepin' it REAL*
- Project Towards No Drug Abuse
- PROSPER
- Raising Healthy Children *(using SSDP model)*
- Strong African American Families
- Teen Intervene

ENVIRONMENTAL STRATEGIES (PROMISING)

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

Note:

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

Additional Promising Programs

As noted on page six of this report, these programs focus on single substance outcomes but have outcomes on risk factors salient to youth marijuana use.

ADDITIONAL PROMISING PROGRAMS

- Alcohol Literacy Challenge (ALC)
- Community Trials Intervention to Reduce High-Risk Drinking (adapted for marijuana)
- Family Matters
- Project Towards No Tobacco Use
- Protecting You/Protecting Me

For more information and the programs supported for current DBHR funding opportunities please visit http://www.theathenaforum.org/I502PreventionPlanImplementation.