

**School Substance Abuse
Prevention Program Inventory:
Results and Recommendations**

School Substance Abuse Prevention Program Inventory: Results and Recommendations

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On behalf of

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Executive Summary

In 2017, the Governor's Goal Council on Healthy People, Places & Resources created a sub-group of substance abuse and education experts from across Arizona, known as the Youth Prevention Sub-Team. At the direction of the Healthy Families Goal Council, and with the current opioid epidemic in mind, the group sought to gather information on the status of youth substance abuse prevention programming that is currently available in all primary and secondary schools in Arizona, and to evaluate and recommend the top substance abuse prevention and out-of-school programs for Arizona schools. The Youth Prevention Sub-Team partnered with the Substance Abuse Epidemiology Work Group (Epi), the Arizona Criminal Justice Commission (ACJC), and the Arizona National Guard's Counter Drug Task Force to construct a survey of Arizona's schools on the availability of programming for students, as well as the dissemination, collection, and reporting of data produced.

Findings from the Substance Abuse Prevention Programming Inventory (SAPPI) survey indicate that few schools in Arizona currently provide substance abuse prevention programming to students, and of those that are able to provide programming most programs have only started in the past one to two years. Compared with data from the 2016 Arizona Youth Survey (AYS) it appears that there is a substantial gap in Arizona schools in terms of the need for prevention programming and the accessibility of these programs.

As schools work to identify substance abuse prevention programming, it is critical that they first determine the level and types of needs that are present in their student population, and then select a prevention program that is suitable to both the specific needs of their students, as well as to the financial ability of the institution to initiate and maintain quality programming. Recommendations from this report include:

1. Continuation and expansion of the use of evidence-based substance abuse prevention programs such as those recommended in this report.
2. Continuation and expansion of funding for school-based substance abuse prevention programs and after-school programs.
3. Continuation of back-to-school substance abuse programs such as the Healthy Families Healthy Youth program in conjunction with ongoing evidence-based and evidence-informed prevention programs throughout the school year.
4. Further equipping schools with tools and timely data in the determination of needs and measurement of outcomes.

Introduction

In response to the drug epidemic that is sweeping the country and effecting all Arizona communities, Governor Doug Ducey took actions that improved access to substance abuse treatment, enacted a Good Samaritan law, increased public messaging on the dangers of opioid misuse and abuse, and strengthened laws that limit the number of opioids dispensed while protecting individuals suffering from chronic and debilitating pain.

As part of the continued efforts to end this epidemic, the Governor's Office of Youth, Faith and Family (GOYFF), in partnership with the Arizona Department of Education, and the Youth Prevention Sub-Team of the Governor's Goal Council on Healthy People, Places & Resources, conducted an inventory of substance abuse prevention programs that are currently being implemented in Arizona schools.

The purpose of this inventory is to assess potential gaps in these prevention services in order to make recommendations on prevention and afterschool programs for Arizona schools. The Arizona Substance Abuse Epidemiology Work Group and the Arizona Criminal Justice Commission facilitated the collection of this information with guidance and support from the members of the Youth Prevention Sub-Team and on behalf of the Governor's Office of Youth, Faith and Family and the Governor's Goal Council on Healthy People, Places & Resources.

The following charts and tables present statewide response trends on a number of metrics included in the Substance Abuse Prevention Program Inventory Survey (SAPPI). When applicable, results from this survey are compared to the 2016 Arizona Youth Survey (AYS) results. The following results are reported:

- Schools reporting substance abuse programs
- Risk factors targeted by schools
- Protective factors targeted by schools
- Additional programs provided by schools
- Mental health resources provided by schools

Survey Administration

The survey instrument (Appendix B) was developed by the Arizona Criminal Justice Commission's Statistical Analysis Center (AZSAC) in conjunction with the members of

the Youth Prevention Sub-Team. The survey was sent out to a list of Arizona schools¹ during the spring semester of 2018. Schools were then contacted by members of the Arizona National Guard's Counter Drug Task Force to facilitate participation in the survey.

Survey Participation

The survey instrument was distributed to a list of 3,978 individual contacts provided by the Arizona Department of Education. Included in the email was a letter from the Superintendent of Public Education, Diane Douglas, and Director of the Governor's Office of Youth, Faith and Family, Maria Cristina Fuentes (Appendix A), requesting participation in the study.

	Districts Participating ²	Total Districts	% of District Participation	Schools Participating ³	Total Schools	% of School Participation
Apache	4	11	36.36%	5	36	13.89%
Cochise	4	22	18.18%	4	67	5.97%
Coconino	5	10	50.00%	17	62	27.42%
Gila	6	9	66.67%	5	27	18.52%
Graham	2	9	22.22%	2	32	6.25%
Greenlee	1	4	25.00%	1	6	16.67%
La Paz	1	6	16.67%	2	12	16.67%
Maricopa	62 ⁴	58	106.90%	100	1145	8.73%
Mohave	4	14	28.57%	3	61	4.92%
Navajo	2	14	14.29%	3	76	3.95%
Pima	6	18	33.33%	7	336	2.08%
Pinal	2	21	9.52%	4	117	3.42%
Santa Cruz	3	6	50.00%	5	25	20.00%
Yavapai	5	25	20.00%	11	95	11.58%
Yuma	4	10	40.00%	3	71	4.23%

¹ A list of contacts was provided by the Arizona Department of Education.

² Schools and Districts that attempted to complete or completed the SAPPI Survey. Note that not all Schools and Districts reported here completed the survey in its entirety; please refer to the sample size listed for each table and figure included in this report.

³ Numbers obtained from the Annual Report of the Arizona Superintendent of Public Instruction (Arizona Department of Education, 2017). The total of Arizona schools includes charter schools.

⁴ The Annual Report of the Arizona Superintendent of Public Instruction (Arizona Department of Education, 2017) lists 58 districts for Maricopa County. However, there are an additional 281 charter holders in Maricopa County that have not been included in the State of Arizona numbers, as the AZSAC is unable to verify how many of those 281 represent individual school districts.

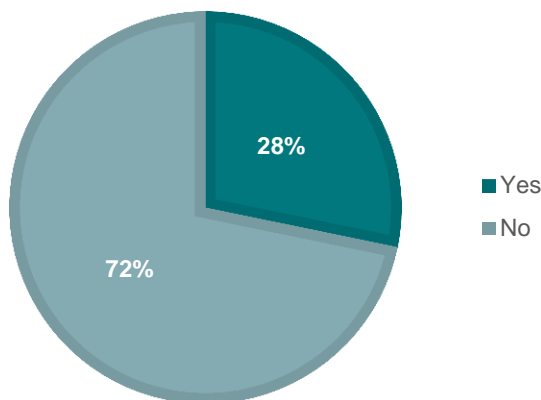
TOTAL	111	237	46.84%	172	2168	7.93%
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The Arizona National Guard’s Counter Drug Task Force was provided with the contact list, and members reached out to schools to encourage participation in the survey.⁵ Table 1 presents the results of the survey administration, demonstrating that approximately 47% of districts and 8%⁶ of schools in Arizona are represented in the survey findings presented in this report.

Substance Abuse Programs

Participating respondents were asked to report whether their school had a substance abuse prevention program currently available. As shown in Figure 1⁷, the vast majority (n=122) of schools that participated in the survey reported that they do not currently have any form of substance abuse prevention programming available for students.

Figure 1: Schools Reporting Availability of Programming



Participants were also asked to report the number of prevention programs that were currently available to students at their school. Of those who responded (n=52), approximately 69% (n=36) indicated that they had only one prevention program, while 31% (n=16) reported they had two or more programs. Survey respondents were also asked to provide the name of the prevention program available at their school. Of those who responded, the most common programs listed include the Healthy Family Healthy

⁵ As the National Guard called school across Arizona, many of the schools disclosed that they did not provide prevention programs but that they were greatly needed in their school and community.

⁶ While the percentage of participating schools is low, the information cleaned from the survey give strong insights into the prevalence of substance abuse prevention programming in schools.

⁷ 170 schools responded to this question in the SAPPI.

Youth program provided by the GOYFF (41%; n=56); a variety of programs funded through grant opportunities with the GOYFF, such as Botvin LifeSkills, Project SUCCESS, and Too Good for Drugs, among others (33%; n=45); and law enforcement partnerships and various other substance abuse programs (25%; n=34). Of the respondents who reported the length of time that their prevention program has been in existence, 46% (n=24) indicated that the program began in 2017 or later. It should be noted that of these programs, all are funded through grants provided by the GOYFF. These grants are provided on a three-year funding cycle, and as such, it can be expected that the programs will end between 2019 and 2020 without continued funding.

Schools were also asked to provide details about the substance abuse prevention programs that they are currently providing. Of the 40 respondents, 38 indicated that their substance abuse prevention programs were school-based, as opposed to an afterschool program (n=2). Of the 35 respondents for what the prevention intervention programs were offered⁸, 30 indicated that their programs were universal prevention interventions, while 8 reported selective interventions and 3 reported indicated interventions.

SAPPI Survey		2016 AYS	
Risk Factor	% of School Respondents⁹	Risk Factor	% of Student Respondents¹⁰
Academic Failure	47.7%	Family Conflict	52.1%
Family Conflict	45.5%	Laws and norms favorable toward drug use	50.7%
Family history of antisocial, high risk or drug related behavior	45.5%	Low commitment to school	48.1%

⁸ More than one response allowed.

⁹ 44 schools responded to this question in the SAPPI.

¹⁰ Percentages are based on 57,170 student respondents to the AYS in 2016.

Favorable attitudes toward drug use	45.5%	Early Initiation	48.1%
Friends' use of drugs	45.5%	Poor family management	47.9%

Risk Factors

Risk factors are personal and environmental factors that may increase a person’s likelihood of engaging in problem behaviors (Hawkins et al, 1992). Survey respondents were asked to rank the top five risk factors that their school’s substance abuse prevention program(s) sought to address. Table 2 reports the results of the top five most frequently reported risk factors by survey respondents.

In order to contextualize the risk factors that most schools are addressing, results from the 2016 Arizona Youth Survey (AYS) are included in Table 2. These results show the top five most prevalent risk factors among Arizona students. The composite ‘risk score’ represents the degree to which respondents are at risk for developing problem behaviors in a particular domain (i.e., peer-individual, school, family, and community) based on student responses on the 2016 AYS. These risk scores were then dichotomized into a variable that indicated whether the student responses were at high or low risk for each risk factor.

The results of the SAPPI indicate that most schools are addressing academic failure (47.7% of respondents); family conflict (45.5% of respondents); family history of antisocial, high risk or drug related behavior (45.5% of respondents); favorable attitudes towards drug use (45.5% of respondents); and friends’ use of drugs (45.5% of respondents) within the substance abuse prevention program(s) available to their students. However, when compared to responses from 8th, 10th, and 12th grade students in Arizona in 2016, there appears to be a disconnect between what risk factors educators feel are most critical to address and those risk factors for which students report being a highest risk. For instance, while schools most frequently reported addressing academic failure, this risk factor did not rank among the top five risk factors reported from the AYS findings. Instead, AYS respondents indicated that they were at highest risk for family conflict, which is the second most frequent risk factor being addressed by Arizona schools. The second most prevalent risk factor among Arizona’s youth was living in communities in which they perceive there to be laws and norms favorable towards drug use. While this may be difficult for schools alone to address, it should be noted that none of the top five risk factors being addressed by schools involved the community domain. Finally, it is worth noting that the third most prevalent risk factor among Arizona students was a low commitment to schools. This is indicative of a larger problem within Arizona schools in their ability to connect to students, beyond substance abuse prevention programs.

Protective Factors

Protective factors are personal and environmental factors that may decrease a person’s likelihood of engaging in problem behaviors (Hawkins et al, 1992). Survey respondents were asked to rank the top five protective factors that their school’s substance abuse prevention program(s) sought to address. Table 4 reports the results of the top five most frequently reported protective factors by survey respondents.

In order to contextualize the protective factors that most schools are addressing, results from the 2016 Arizona Youth Survey (AYS) are included in Table 3. The composite ‘protective score’ represents the degree to which respondents have protection against developing problem behaviors in a particular domain (i.e., peer-individual, school, family, and community) based on student responses on the 2016 AYS. These protective scores were then dichotomized into a variable that indicated whether the student responses indicated high or low levels of protection for each protective factor. The results in Table 3 show the top five protective factors for which most Arizona students indicate having the lowest levels of protection. Ideally, protection scores should be higher, indicating a higher level of protection. Lower scores indicate low levels of protection and thus areas where improvements can be made to further protect students from developing problem behaviors, such as substance use and abuse.

Table 3: Top 5 Reported Protective Factors, SAPPI and AYS			
SAPPI Survey¹¹		2016 AYS	
Protective Factor	% of School Respondents¹²	Protective Factor	% of Student Respondents¹³
Academic Skills	23.8%	Interaction with Prosocial Peers	52.9%
Healthy Beliefs and Clear Standards for Behavior	23.8%	Prosocial Involvement	52.3%
Belief in a Moral Order	21.4%	Rewards for Prosocial Involvement	51.1%
Bonding to Adults, Peers and Community	21.4%	Belief in the Moral Order	49.8%
Opportunities for Positive	21.4%	Family Attachment	49.4%

¹¹ “Academic Skills” and “Healthy Beliefs and Clear Standards for Behavior” are not protective factors found on the AYS or Communities that Care survey.

¹² 42 schools responded to this question in the SAPPI.

¹³ Percentages are based on 57,170 student respondents to the AYS in 2016.

The top five protective factors being addressed by Arizona schools are academic skills (23.8% of respondents); healthy beliefs and clear standards for behavior (23.8% of respondents); belief in a moral order (21.4% of respondents); bonding to adults, peers and community (21.4% of respondents); and opportunities for prosocial involvement (21.4% of respondents). Similar to the results for risk factors in Table 2, there appears to be a disconnect between the protective factors being addressed by Arizona educators and the protective factors for which Arizona students report the lowest levels of protection. For instance, students report low levels of protection from interaction with prosocial peers (52.9%), prosocial involvement (52.3%), rewards for prosocial involvement (49.8%), belief in the moral order (49.8%), and family attachment (49.4%). While low levels of belief in a moral order were present among Arizona students, only 21.4% (n=9) of schools were attempting to address this issue among their students. Additionally, while two of the top five protective factors being addressed by schools are relative to the school domain (academic skills and opportunities for positive involvement), the school domain was not present among the top five protective factors for which students reported the lowest levels of protection. While schools would likely have a more difficult time addressing other domains, such as the family or community, it should be less problematic for them to institute prevention programming that addresses the peer-individual domain, which comprised the top four protective factors for which Arizona students report having the lowest levels of protection.

Additional Programs

While the primary focus of the SAPPI survey was to determine the availability and types of substance abuse prevention programming that are currently provided by schools in Arizona, additional information that is relevant to schools and students was asked to be provided by respondents for this report. A list of possible additional programming (see Table 4) was provided, and respondents were asked to indicate whether their school currently offered at least one program that dealt with each of the topics/issues. A number of schools indicated that they had at least one program available, even if they did not have a substance abuse prevention program in place. The most commonly reported programs were those addressing bullying (68%, n=73), youth with learning disabilities and/or academic difficulties (62%, n=66), homeless and/or runaway youth (42%, n=45), interventions related to parents/families/guardians (41%, n=44), and suicide prevention programming (41%, n=44). It is clear from Table 4 that while not all schools are able to provide substance abuse prevention programming to their students,

they attempt to address the same risk and protective factors that influence the likelihood of a student engaging in problem behaviors, such as substance use and abuse.

Program Description	Number of Schools Reporting
Bullying	73
Youth with learning disabilities/ academic difficulties	66
Homeless/ Runaway Youth	45
Parents/ Families/ Guardians intervention	44
Suicide Prevention	44
School Dropouts/ Truancy/ At risk of Dropping out	43
Economically Disadvantaged Youth	41
Mentally Ill/ Emotionally Disturbed Youth	34
Children involved in Child Protective Services (CPS)	32
Migrants	29
Adults/ families with children in the CPS system	28
Youth Tobacco Cessation	28
Pregnant Teens	27
Probation/ Parole/ Drug Offending Youth	26
Gay/ Lesbian/ Bisexual/ Transgendered Youth	25
Children in households receiving monetary assistance	24
Adults/ families receiving monetary assistance	23
Immigrants/ Refugees	22
Youth Victims of Physical/ Emotional/ Sexual Abuse	20
Incarcerated Youth	17
Youth in Rural/ Isolated Populations	17
Domestic Violence Offenders - Youth	16
Youth Sex Offenders	16
Gang Prevention/ Intervention	16
COSAs/ Children of Substance Abusers	15
Other Family (e.g. community mentorship, college prep, school counselor)	14
Other Youth (e.g. parent liaison programs, positive behavior intervention support, conflict resolution)	13

Note: 106 schools responded to this question, multiple responses allowed.

Mental Health Resources

The final topic addressed in the SAPPI survey was in relation to the type and availability of mental health resources in Arizona schools. Similar to the results of Table 4, it is evident that more schools are able to provide some form of mental health resource(s) to students than they are able to provide substance abuse prevention programming. Of the 157 respondents, 63% (n=99) indicated that they had some form of mental health

resource available to their students, while 37% (n=58) reported that they did not have any mental health resources available. Of the 99 schools that reported having mental health resources available, 88% indicated that they had a counselor or psychologist on staff (n=8); 17% reported that they had a social worker on staff (n=17); 9% indicated that they had a behavioral specialist on staff (n=9); and another 17% reported that they had some other kind of resources available, such as an outside agency, special education program, school nurse, or other tools and resources (n=17).

Table 5: Mental Health Resources in Schools	
Type	# of Schools Reported
Counselor/Psychologist	87
Social Worker	17
Behavior Specialist	9
Other (e.g. Cultural Coordinator, Special Education Program, outside agencies, nurse)	17

Note: 99 respondents, multiple responses allowed

With recent violent events occurring in schools across the United States, it is clear that mental health resources should be available at all schools. Based on the SAPPI survey results, it appears that approximately 40% of Arizona students attend a primary or secondary educational institution that does not have access to these resources. Of those that do have mental health resources available, it may be for only a portion of the school week. Several schools reported having their resource (such as a social worker or counselor) only available to students “part-time,” “2.5 days a week,” “once a week,” or on an “as needed” basis. While the majority of schools report having access to one or more mental health resources for their students, this may not include a trained professional who is available to students at all times.

Recommendations

Results of the SAPPI survey indicate that there is likely little substance abuse prevention programming being consistently offered to K-12 students across Arizona, yet there also appears to be a great need for such programming. Results from the 2016 AYS indicate that approximately half of 8th, 10th, and 12th grade students report being at high risk for several key factors that may lead to involvement with substance use and other delinquent behaviors. Empirically grounded, data-driven substance abuse prevention programming is one way to prevent youth from ever being involved in the cycle of substance abuse.

School-Based Programming

As this report has established, there is a clear need for substance abuse prevention programming in Arizona's primary and secondary schools. To that effect, a series of recommendations around school-based substance abuse prevention programming are included.

Program Selection Methodology

The Youth Prevention Sub-Team used the following methodology to select ten evidence-based programs to review for recommendation in this report. Programs were selected through a web-based search of the National Repository of Evidence-Based Programs and Practices (NREPP), Blueprints for Healthy Youth Development, the Office of Juvenile Justice and Delinquency Prevention Program (OJJDP), and the National Institute of Justice Crime Solutions. The initial search criteria screened for substance abuse prevention programs designed for youth 6-17 and that occurred within a school setting by trained school staff. The initial search results revealed more than 60 prevention programs. Programs were then reviewed to ensure that primary outcomes included a reduction in substance abuse or alcohol, tobacco and other drugs (ATOD) rates, could be delivered by school staff, and had a manualized curriculum with a defined number of lessons over a span of time. Remaining programs were evaluated based on programmatic outcomes associated with a reduction in substance abuse rates. If a program did not demonstrate a significant change in lowering substance abuse between the intervention and control group, it was eliminated.

One program was presented that is not listed in the aforementioned repositories. *Living in 2 Worlds* was included in this list due to the limited information available on school-based prevention program designed for American Indians. Many of the programs identified had marginal American Indian population sizes in their evaluations (around 1-10%). Since *Living in 2 Worlds* is a cultural adaptation of *keepin' it REAL*, it is being run in Arizona communities (primarily through the Phoenix Indian Center), and has significant research associated with urban Indian populations, it was included for programmatic review.

The following 10 programs¹⁴ were selected according to the above listed criteria, and then presented to the Youth Prevention Sub-Team members to vote based on nine criteria:

- Botvin LifeSkills
- The Good Behavior Game
- Guiding Good Choices
- keepin' it REAL
- Living in 2 Worlds
- Positive Action
- Project SUCCESS
- Project Toward No Drug Abuse
- Strengthening Families
- Too Good for Drugs

The criteria for selection as a recommended program included:

- Youth- and/or parent-focused program which can be implemented in schools.
- Substance abuse focused; substance abuse must be a primary objective of the curriculum, although not necessarily the only objective.
- Curriculum-based program, with a specific curriculum (including lessons and manual) that can be implemented with fidelity.
- Rated as an “evidence-based” program by a recognized national rating system.
- Program is geared to a multi-cultural population (includes a cultural competency component).
- The cultural competency component can be adapted for other groups/cultures.
- The program is available for all grade levels (K-12).
- The program is available for only a subset population of students (e.g., 5-8th grades).
- The length of the program (both in terms of weeks and a number of lessons) will be suitable for schools to adopt.

Evaluators from the Youth Prevention Sub-Team were asked to provide feedback on each of the ten programs in accordance with how strongly (on a five-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree”) they perceived each program met each of the above listed criteria. While individual feedback varied, the group unanimously agreed that all of the ten programs be included as recommendations in the final report.

¹⁴ More detail on each of the programs is available in Appendix C.

Of the ten programs, however, there were five that the group determined to be the preferred programs. These included: *Botvin LifeSkills*, *keepin' it REAL*, *Positive Action*, *Project Toward No Drug Abuse*, and *Too Good For Drugs*. These five programs were determined to have the greatest focus on substance abuse, evidence-based backing, and ability to be implemented in Arizona schools. It should be noted, however, that these programs are not necessarily the best fit for every school in Arizona. Educators and community stakeholders should first assess the needs of their population, and identify programs that are best suited to address those needs. In addition, prior to selecting a program, the prevalent risk and protective factors should be determined in order to select a program that will best address those factors.

One way for schools to obtain data on risk and protective factors, as well as substance use, is through the AYS. Conducted biennially by the Arizona Criminal Justice Commission, the Arizona Youth Survey (AYS) collects data on 8th, 10th, and 12th grade students across the state. The survey asks youth about their experiences with topics such as substance use, school safety, bullying, gang activity, and other problematic behaviors, as well as the risk and protective factors that influence the prevalence of these behaviors. The AYS is grounded in empirically driven and research-based theories of youth development, and provides a wealth of information that is used to improve the circumstances in which all Arizona youth live and learn. For years, the AYS has been utilized by a number of coalitions, non-profit agencies, government agencies, Regional Behavioral Health Authorities (RBHA), local school districts, and state universities in order to:

- Identify the nature and extent of various problem behaviors;
- Assess the performance of prevention and intervention efforts;
- Guide program and policy decisions that affect prevention and intervention efforts;
- Design and implement a new program and/or policy; and
- Apply for competitive funding opportunities to solve a variety of problem behaviors.

The Youth Prevention Sub-Team only recommended specific evidence-based prevention programs because of the extent of research available. There are also many short-term evidence-informed supplementary prevention programs that schools should consider incorporating in a systematic prevention effort. These programs include but are not limited to Healthy Families – Healthy Youth, Rx 360, and “Opioid Impact” lessons provided for School Resource Officers through the Arizona Bar Foundation. Schools should also partner with local coalitions and non-profits to provide additional prevention

programs and incorporate school-based prevention activities into a Strategic Prevention Framework¹⁵.

After-School Programming

After-School Programs (ASP) vary in structure, focus, content, emphasis, and sponsoring organization (e.g., schools, religious institutions, libraries, Boys and Girls Clubs). Effective ASPs are unique in that they are a strong protective factor for a number of risky behaviors including substance abuse, but they also create prosocial protective factors. ASPs may be broadly differentiated by the following categories:

1. Team sports, sports clubs, or organized sports activities out of school.
2. Prosocial activities, such as participation in volunteering, service clubs, and/or religious service activities in the community.
3. Performing arts, including participation in band, drama, art, or dance.
4. Academic-oriented clubs and experiential/enriched learning programs.
5. School involvement, such as participation in student government.¹⁶

ASPs work best when they are thoughtfully incorporated into systematic prevention effort as demonstrated through The Icelandic Prevention Model. In Iceland, the Icelandic Centre for Social Research and Analysis (ICSRA) and researchers at Reykjavik University, along with policy makers and practitioners in the field, began collaborating in the 1990s in order to better understand the societal factors influencing substance use among adolescents and possible approaches to prevention. The evidence-based approach that was developed is commonly known as “The Icelandic Prevention Model.”

Components of the intervention involved but were not limited to parents signing contracts to agree to spend more time with their children and significant investment to provide greater opportunity for youth to engage in music, art, dance, and sports programs to keep youth engaged in prosocial activities after school hours.

Results from the implementation of The Icelandic Prevention Model show a steady decline in substance use, which is reported as being drunk during the last 30 days; smoking one cigarette or more per day; and having tried hashish once, from 1997 through 2007 among 14 and 16-year-old adolescents (Sigfusdottir, Thorlindsson, Kristjansson, Roe, & Allegrante, 2008). In addition, protective factors such as parental monitoring, time spent with parents, not attending parties, and participating in sports or clubs were all reported to have increased over time.

¹⁵ A Strategic Prevention Framework is a comprehensive guide to plan, implement and evaluate prevention practices and programs and is discussed in greater detail beginning on page 17 of this report.

¹⁶ See (McDowell Group, 2018) for additional information.

More current research indicates that the effort has continued to be effective over the last decade. In 1998, 42% of 15- and 16- year olds reported getting drunk in the previous month. In 2016, that number dropped to only 5%. A similarly drastic reduction in youth cigarette use occurred during the same time period, with those reporting use decreasing from 23% in 1998 to only 3% in 2016. The Icelandic Prevention Model exemplifies the use of ASPs in a strategic prevention model.

While research supports the impact ASPs can have, a major limitation to evaluating the best afterschool programs for Arizona schools is that they generally do not have an empirically based set of standards in which to operate. Additionally, a wider variety of options allows for youth to participate in after-school programs that appeal to their passions. While there is not a specific list of afterschool programs to be recommended in the context of this report, the Youth Prevention Sub-Team recommends using the standards set-forth by the Arizona Center for Afterschool Excellence (AzCASE) as a resource for schools to ensure quality and effective afterschool programming.

AzCASE created a set of quality standards for the state of Arizona's afterschool programs in 2013. These seven standards are designed to promote quality out-of-school time for students. It is crucial to consider the time spent outside of classroom hours as an opportunity to provide youth with additional services that may not be addressed in the classroom. Approximately 80% of a youth's waking hours are spent outside of the classroom. Research has shown that participation in afterschool programs can reduce misconduct in school, and reduce the use of drugs and alcohol compared to students that were unsupervised. The seven standards of quality afterschool programming are as follows:

1. **Safe and Healthy Environments:** Youth experience physically and emotionally safe, healthy and developmentally appropriate learning environments.
2. **Positive Relationships:** Youth benefit from the positive relationships and interactions that are promoted, developed, nurtured and maintained by the program staff and volunteers.
3. **Intentional Programming and Activities:** Youth experience a variety of fun and stimulating opportunities for engagement and learning that support positive physical, social, emotional and cognitive development.
4. **Equity and Inclusion:** Youth thrive in the program regardless of their background, including but not limited to race, color, religion, sex, income level, national origin, physical, mental and learning ability, sexual orientation, or gender identity and expression.
5. **Family, School, and Community Engagement:** Youth benefit when families, schools and communities are actively engaged in program development and implementation.
6. **Program Management:** Youth benefit from effective leadership, strong program management and sound fiscal management.

7. **Program Evaluation and Data:** Youth benefit from systems for continuous quality improvement that include measurable goals, aligned with children, youth and family needs.

ASPs provide a link between educators and community stakeholders, and allow schools to serve the needs of students outside of school hours. To ensure the effectiveness of ASPs as part of the substance abuse prevention model, they should be incorporated in and support the Strategic Prevention Framework and prevention programming established by the school.

Considerations When Selecting a Program

There are several important considerations that should be addressed when selecting a program, such as the cost per students, the needs of the population, and how well the program fits within the Strategic Prevention Framework.

Cost

Programmatic costs can vary greatly depending on the prevention program. For example, cost for the top ten evidence-based prevention programs identified in this report range from approximately \$15.00 to \$81.00 per student. When selecting a program for implementation, it is important to assess the costs associated with implementing and sustaining a program over the long term. Costs should, however, also be balanced against the return on investment in reducing negative outcomes for students. The Washington State Institute for Public Policy developed a standardized model using scientifically rigorous standards to estimate the costs and benefits associated with various prevention programs. Benefit-per-dollar cost ratios for evidence-based interventions ranged from \$0.62 per dollar invested to more than \$64 for every dollar invested (Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health, 2016).

Results from this survey indicate that there is a need for additional substance abuse prevention programming to be made available to students in Arizona. The Governor's Office of Youth, Faith and Family's High School Health and Wellness (HSHW) grant program can be used as a model to determine the approximate amount of funds needed to offer substance abuse prevention programming in schools that do not currently have some kind of program for students in place. The HSHW program is ideal for calculating approximate costs, because the funding model allows schools flexibility in the type of programming they offer and in how that programming is implemented. For instance, some schools may opt to hire an additional personnel in the form of a Prevention Specialist, while others may sub-contract with a community coalition that is experienced in delivering prevention programming.

Funding Sources

In 2017, GOYFF equipped 53 middle schools with the Healthy Families Health Youth prevention program and funded 38 high schools to run evidence-based prevention programs. Through the Arizona Parents Commission on Drug Education and Prevention, the GOYFF funds multiple non-profits and coalitions to provide community primary prevention programs. Many of these community organizations also offer programming to schools. The Department of Education provides competitive grant

funding that supports more than one-hundred School Resource Officers (SROs) in Arizona schools. The Arizona Attorney General’s Office also provides some prevention program funding to community-based organizations. Other research has found that substance abuse intervention programs that address general risk and protective factors for substance abuse result in reduced risk for participants of between 20 to 65 percent (Spoth, et al., 2013).

There are also federal grant opportunities including but not limited to the Opioid State Targeted Response grant, Substance Abuse Block Grant, and the Partnership for Success Grants through the Substance Abuse Mental Health Services Administration (SAMHSA) that are able to fund school-based prevention programs. Other potential federal funding sources include, Formula 1 educational funds as well as the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Formula Grant. Some state agencies have also formed private-public partnerships to help fund prevention efforts. For example, the state of Massachusetts Attorney General’s Office partnered with General Electric to provide two-million dollars in additional school-based prevention funding. This partnership provided funding for a select group of middle schools to run year-long evidence-based substance abuse prevention programs. Funds were also used to develop and disseminate a substance abuse prevention toolkit, which was made available to all middle schools in the state.

Strategic Prevention Framework

The Substance Abuse and Mental Health Services Administration (SAMHSA) provides a resource for implementing substance abuse prevention programming, known as the Strategic Prevention Framework (SPF)¹⁷. The SPF is a comprehensive guide to planning, implementing, and evaluating prevention practices and programs. The SPF offers prevention professionals, community members, and educators a comprehensive process for addressing the substance misuse and related behavioral health problems facing their schools and communities. The effectiveness of the SPF begins with a clear understanding of needs and involves stakeholders in all stages of the planning process.

Figure 2: Strategic Planning Framework



¹⁷ <https://www.samhsa.gov/capt/>

The steps of the SPF include:

Step 1: Assess Needs: What is the problem, and how can I learn more?

Step 2: Build Capacity: What do I have to work with?

Step 3: Plan: What should I do and how should I do it?

Step 4: Implement: How can I put my plan into action?

Step 5: Evaluate: Is my plan succeeding?

The SPF also includes two guiding principles:

- **Cultural competence:** The ability to interact effectively with members of diverse population
- **Sustainability:** The process of achieving and maintaining long-term results

Based on SAMHSA's vision of reducing the impact of substance use and mental illness on America's communities, the Framework applies to any prevention planning process that addresses substance use and mental health issues. It defines the essential traits of high-quality prevention strategies, lays out guiding principles and action steps, and offers tools communities can use to plan and build prevention programs that work. Through a long list of federal and national partners, the Framework provides broad support and access to many resources.

Conclusion

This report provided a current view of the availability of substance abuse prevention programming at both elementary and secondary schools in Arizona. Results indicate that there is a clear need for the expansion and continued funding of prevention programs. Recommendations from this report include:

1. Continuation and expansion of the use of evidence-based substance abuse prevention programs such as those recommended in this report.
2. Continuation and expansion of funding for school-based substance abuse prevention programs and after-school programs.
3. Continuation of back-to-school substance abuse programs such as the Healthy Families Healthy Youth program in conjunction with ongoing evidence-based and evidence-informed prevention programs throughout the school year.

4. Further equipping schools with tools and timely data in the determination of needs and measurement of outcomes.

Appendices

Appendix A



STATE OF ARIZONA
OFFICE OF THE GOVERNOR

DOUGLAS A. DUCEY
GOVERNOR

MARIA CRISTINA FUENTES
DIRECTOR

March 1, 2018

Dear Educator:

The health and wellbeing of our youth and families is and will remain a top priority for the state of Arizona. Each of you have seen, and in some cases, have been directly impacted by the drug epidemic that is sweeping our country and affecting all Arizona communities. This is why Governor Doug Ducey has taken action to improve access to substance abuse treatment, enact a Good Samaritan law, increase public messaging on the dangers of opioid misuse and abuse, and strengthen laws that limit the amount of opioids dispensed while protecting individuals suffering from chronic and debilitating pain.

As part of the continued efforts to end this epidemic, the Governor's Office of Youth, Faith and Family, in partnership with the Arizona Department of Education, and the Youth Prevention Sub-Team of the Governor's Goal Council on Healthy Citizens, is conducting an inventory on afterschool programs and substance abuse prevention programs currently being implemented in Arizona schools. The purpose of this inventory is to assess potential gaps in these prevention services in order to make recommendations. Your timely participation in this process is critical as it ensures an accurate representation of all Arizona communities.

The Arizona Substance Abuse Epidemiology Work Group and Arizona Criminal Justice Commission are facilitating the collection of this information on behalf of the entities listed above. Your time and investment in this work is of the utmost importance and greatly appreciated.

If you have questions about the Data Collection Form, please contact Catie Clark, Chair of the Arizona Substance Abuse Epidemiology Work Group and Director of the Statistical Analysis Center at the Arizona Criminal Justice Commission, via phone at (602) 364-1158 or through email at cclark@azcjc.gov.

Sincerely,

Handwritten signature of Maria Cristina Fuentes in cursive.

Maria Cristina Fuentes
Director
Governor's Office of Youth Faith and Family

Handwritten signature of Diane M. Douglas in cursive.

Diane M. Douglas
Superintendent of Public Education
Arizona Department of Education

GOVERNOR'S OFFICE OF YOUTH, FAITH AND FAMILY
1700 West Washington Street, Suite 230, Phoenix, Arizona 85007
Phone 602-542-4043 * Fax 602-542-3423 * www.goyff.az.gov

Appendix B¹⁸

DISTRICT INFORMATION: Please ensure that the name of the district is indicated. Please use a street or highway address (not a P.O. Box as the information is used for mapping purposes).

District name:

CTDS Number:

Street Address:

City:

County:

Zip:

District Prevention/Title IV Coordinator:

Phone:

Email:

Fax:

SCHOOL INFORMATION: Please ensure that the name of the school is indicated. Please use a street or highway address (not a P.O. Box as the information is used for mapping purposes).

Please provide your name, phone and email so we may contact you if there are questions about the data you provide.

School Name:

¹⁸ Note: The survey was provided to educators via the online platform SurveyMonkey. If you would like to receive the link to the survey instrument, please contact Catie Clark at the Arizona Criminal Justice Commission at cclark@azcjc.gov.

School CTDS Number:

Street Address:

City:

County:

Zip:

School Prevention/Title IV Coordinator:

Phone:

Form Completed By:

Phone:

Email:

Fax:

Do you have a substance abuse prevention program available in your school?

Yes

No

(If Yes, continue. If No, skip to page 24)

How many substance abuse prevention programs are available in your school?

RISK FACTORS: select the top five (5) core/main Risk Factors that your school addresses with substance abuse prevention program(s).

Consider the goals that your school has around substance abuse prevention. These goals should reflect specific risk and/or protective factors that identify the desired outcomes of participants once they have completed a prevention program. What are the factors the program is most designed to influence and/or change?

Begin with 1 as the highest ranked (most important) factor.

***Note: Your school may be addressing fewer than five risk factors. In this case, please rank *only* the risk factors being addressed (if any).**

Academic failure

Community and personal transitions and mobility

Community disorganization

Early initiation of problem behavior

Family conflict

Family history of anitsocial, high risk or drug-related behavior

Favorable attitudes toward antisocial behavior

Favorable attitudes toward drug use

Friends' use of drugs

Interaction with antisocial peers

Laws and norms favorable toward drug use

Low commitment to school

Low neighborhood attachment

Low perceived risk of drug use

Parental absenteeism

Parental attitudes favorable toward antisocial behavior and drugs

Perceived availability of drugs and handguns

Poor family discipline

Poor family supervision

Rebelliousness

Rewards for antisocial involvement

Sensation seeking or risk taking propensity/Impulsivity

PROTECTIVE FACTORS: select the top five (5) core/main Protective Factors that your school addresses with substance abuse prevention program(s).

Consider the goals that your school has around substance abuse prevention. These goals should reflect specific risk and/or protective factors that identify the desired outcomes of participants once they have completed a prevention program. What are the factors the program is most designed to influence and/or change?

Begin with 1 as the highest ranked (most important) factor.

***Note: Your school may be addressing fewer than five risk factors. In this case, please rank *only* the risk factors being addressed (if any).**

Academic skills

Belief in a moral order

Bonding to adults, peers and community

Family attachment

Healthy beliefs and clear standards for behavior

Opportunities for positive involvement

Religiosity

Resistance skills

Rewards for positive involvement

School attachment

Social competence skills

PROGRAM NAMES AND DESCRIPTIONS: Select the name of the program you are reporting on from dropdown box. The following list of programs comes from SAMHSA's National Registry of Evidenced-Based Programs and Practices (NREPP) and may not be inclusive of all evidenced-based programs. If the name of your program isn't listed, select "Other/Not Listed". You will be prompted to give the name of your program and a brief description of the program's overall purpose and goal. In 1-3 sentences, describe your program and what it strives to achieve. You may wish to mention if it is a research-based or "effective" program, or if it is based on research-based strategies.

For example: "The XYZ prevention program is a school based program that seeks to increase the protective factors for at-risk students and to prevent, reduce, or delay the use of alcohol and

other drugs. Specific objectives include: 1) increasing the knowledge of health/substance use issues; 2) improved academic performance, school attendance, and behavior and attitudes toward school; and 4) enhancing problem-solving and decision-making skills."

Other/Not Listed: Please list name and brief description

PROGRAM TYPE: Please choose the Program Type that best matches the services your program is designed to address from the dropdown box. For the purposes of this inventory, the program must be either a school-based substance abuse prevention program or an after school program.

Programs may be designed to be implemented in school (implemented in the school setting) or after school (before school, after school, between school terms, or during the summer).

This should describe what the program is designed to do, not who the program serves.

- School-based substance abuse prevention interventions:** Prevention interventions that are implemented in the school setting that aim to decrease risk factors and/or increase protective factors associated with youth substance use.
- After School Programs (ASPs):** "[R]egular, structured or semi-structured activities for school-age (K-12) youth that occurs before school, after school, between school terms, or during the summer. Other terminology – out-of-school time or OST, extra-curricular activities, organized activities, expanded learning time, school-age-care – is synonymous in this context and use interchangeably."

PROGRAM START DATE: Please provide the date (school year) that this prevention program was started in your school.

(If Other/Not Listed selected, ensure they include name and description then continue to page 10. If Named program selected, skip to page 11).

TARGET POPULATION FOR INTERVENTIONS: Please indicate the group of people (targeted population) you are serving in your program. If the actual population served is different from the targeted population, please describe your participant characteristics.

Universal Prevention Interventions: Universal interventions attempt to reduce specific health problems across all people in a particular population by reducing a variety of risk factors and promoting a broad range of protective factors.

For example: *Strengthening Families Program: For Parents and Youth 10-14* (SFP), which is a widely used seven-session universal, family-focused program that enhances parenting skills "specifically nurturing, setting limits, and communicating" as well as adolescent substance refusal skills.

Selective Interventions: Selective interventions are delivered to particular communities, families, or children who, due to their exposure to risk factors, are at increased risk of substance misuse problems. Target audiences for selective interventions may include families living in poverty, the children of depressed or substance using parents, or children who have difficulties with social skills. Selective interventions typically deliver specialized prevention services to individuals with the goal of reducing identified risk factors, increasing protective factors, or both.

For example: The *Nurse-Family Partnership*, which uses trained nurses to provide an intensive home visitation intervention for at-risk, first-time mothers during pregnancy.

Indicated Interventions: Indicated prevention interventions are directed to those who are already involved in a risky behavior, such as substance misuse, or are beginning to have problems, but who have not yet developed a substance use disorder. Such programs are often intensive and expensive but may still be cost-effective, given the high likelihood of an ensuing expensive disorder or other costly negative consequences in the future.

For example: Coping Power, which is a 16-month program for children in Grades 5 and 6 who were identified with early aggression. The program, which is designed to build problem-solving and self-regulation skills, has both a parent and a child component and reduces early substance use.

Other (please specify)

BREAKDOWN OF FUNDS: Estimate the breakdown of funds received, number of children served, as well as the source of those funds.

Include the name of the funding source (e.g., High School Health and Wellness - HSHW - grant; SAMHSA grant, Drug Free Communities - DFC - grant, etc.), as well as the estimated number of children served through the program, and the estimate of total funds received from that specific source directed towards the program.

Funds reported should be those dedicated to the specific prevention program reported on in this form.

Funding source:

Number of Children Served:

Estimated Funds Received:

Does your school have another substance abuse prevention program?

Yes

No

(If Yes, repeat questions on programs – no more than 5 programs may be detailed. If No, go to next question.)

ADDITIONAL PROGRAMS/SERVICES: Indicate the number of the school's programs/services targeted to families and youth (not including substance abuse prevention programs). If your school does not implement a specific type of program, leave the space blank.

Parents/ Families/ Guardians intervention

Adults/ families receiving monetary assistance

Adults/ families with children in the CPS system

Other Family (describe):

Probation/ Parole/ Drug Offending Youth

Incarcerated Youth

Children in households receiving monetary assistance

Children involved in Child Protective Services (CPS)

Economically Disadvantaged Youth

Domestic Violence Offenders - Youth

Gay/ Lesbian/ Bisexual/ Transgendered Youth

Youth Tobacco Cessation

Youth Sex Offenders

COSAs/ Children of Substance Abusers

Homeless/ Runaway Youth

Mentally Ill/ Emotionally Disturbed Youth

Youth Victims of Physical/ Emotional/ Sexual Abuse

Pregnant Teens

Migrants

Immigrants/ Refugees

Youth in Rural/ Isolated Populations

School Dropouts/ Truancy/ At risk of Dropping out

Youth with learning disabilities/ academic difficulties

Bullying

Suicide Prevention

Gang Prevention/ Intervention

Other Youth (describe):

Do you have mental health resources at your school?

Yes

No

If so, please list the type of mental health resources available to students (i.e., counselor, etc.).

Thank you for your participation in this survey!

The Arizona Youth Survey (AYS), mandated by A.R.S. §41-2416, is a biennial survey of youth in all 15 counties in Arizona. The survey asks youth about their experiences with topics such as substance use, school safety, bullying, gang activity, and other problematic behaviors, as well as the risk and protective factors that influence the prevalence of these behaviors. The AYS is grounded in empirically driven and research-based theories of youth development, and provides a wealth of information that is used to improve the circumstances in which all Arizona youth live and learn. For years, the AYS has been utilized by a number of coalitions, non-profit agencies, government agencies, Regional Behavioral Health Authorities (RBHA), local school districts, and state universities in order to:

- Identify the nature and extent of various problem behaviors;
- Assess the performance of prevention and intervention efforts;
- Guide program and policy decisions that affect prevention and intervention efforts;
- Design and implement a new program and/or policy; and
- Apply for competitive funding opportunities to solve a variety of problem behaviors.

If you would like more information about the AYS, please visit the Arizona Criminal Justice Commissions website: <http://azcjc.gov/content/arizona-youth-survey> or contact a member of the Statistical Analysis Center at AYS@azcjc.gov or (602) 364-1157.

If you would like to enroll your school in the Arizona Youth Survey, please complete and return the [School Information Form](#). Administration for the 2018 AYS is open from February 1, 2018 to May 18, 2018. Please be advised that we require a minimum of **three weeks'** time from submission of the form to administration of the survey.

Appendix C

Prevention Program Descriptions

Botvin LifeSkills Training: LifeSkills Training (LST) is a classroom-based universal prevention program designed to prevent adolescent tobacco, alcohol, marijuana use, and violence. LST contains 30 sessions to be taught over three years (15, 10, and 5 sessions), and additional violence prevention lessons also are available each year (3, 2, and 2 sessions). Three major program components teach students: (1) personal self-management skills, (2) social skills, and (3) information and resistance skills specifically related to drug use. Skills are taught using instruction, demonstration, feedback, reinforcement, and practice.

Guiding Good Choices: Guiding Good Choices (GGC) is a family competency training program for parents of children in middle school. The program contains five-sessions, with an average session length of 2 hours each week. Children are required to attend one session that teaches peer resistance skills. The other four sessions are solely for parents and include instruction on: (a) identification of risk factors for adolescent substance abuse and a strategy to enhance protective family processes; (b) development of effective parenting practices, particularly regarding substance use issues; (c) family conflict management; and (d) use of family meetings as a vehicle for improving family management and positive child involvement.

keepin' it REAL: keepin' it REAL teaches youths to live drug-free lives by building on their existing cultural and communication strengths and the strengths of their families and communities. Using keepin' it REAL strategies, students learn how to recognize risk, value their perceptions and feelings, embrace their cultural values (e.g., avoiding confrontation and conflict in favor of maintaining relationships and respect), and make choices that support them. The curriculum includes 10 sequential lessons to be taught in class over a 2- to 3-month period. The curriculum has six core elements: 1) communication competence and ethnic variations thereof; 2) narrative-based knowledge to enhance identification with the prevention message; 3) different types of social norms (personal, injunctive, and descriptive) as motivators in substance use; 4) social learning of life skills and their key role in risk assessment and decision-making; 5) drug-resistance strategies most commonly and effectively employed by adolescents; and 6) the local social context. Distinct Mexican American, non-Latino, and multicultural versions of keepin' it REAL were developed so students could recognize themselves in the prevention message and see solutions that are sensitive to their unique cultural environments. There is also a Native American adaption of keepin' it REAL called Living in 2 Worlds.

Living in 2 Worlds: Living in 2 Worlds (L2W) is a substance use prevention program for urban American Indian (AI) middle school students. To create L2W, the SIRC research team partnered with the Phoenix Indian Center and two school districts to engage youth, families, elders, and Native community leaders in a community-driven participatory process to identify cultural sources of resilience that protect American Indian youth from substance use and other risk behaviors. L2W was adapted specifically for Native adolescents living in urban areas using the core components of the keepin' it REAL curriculum, an existing SAMHSA “Model Program” for substance use prevention in middle schools, retaining the original program’s focus on teaching the effective drug resistance strategies (Refuse, Explain, Avoid, Leave [R-E-A-L]) used most often by youth. A cultural adaptation model (Castro, Barerra, & Martinez, 2004) guided the creation of the culturally grounded curriculum, with a pilot phase that was followed by a small randomized controlled trial in three Phoenix area middle schools. Despite the diverse tribal backgrounds of urban American Indian families, ten inter-tribal cultural elements identified by the community were found to resonate widely, and these were infused into the L2W curriculum. These included the imperative of knowing ancestry, embracing kinship, and emphasizing oral traditions (see Reeves, Dustman, Harthun, Kulis, & Brown, 2014). These elements were aligned and integrated with the core components of the original keepin' it REAL curriculum. L2W emerged with lesson goals, objectives, activities, and prevention messages solidly grounded in urban American Indian inter-tribal cultural values. Focused on strengthening resiliency, L2W teaches a wide range of drug resistance skills and strategies including risk assessment, decision making, and culturally specific prevention messages in ways designated by the Native community as culturally appropriate and reflecting the social and cultural context navigated by urban American Indian youth. To test the degree to which culturally grounding improved youth outcomes, American Indian students in two Phoenix area middle schools received the L2W curriculum and American Indian students in another school received the original, unadapted version of keepin' it REAL. Classroom lessons for both programs were delivered by Native facilitators in regular academic enrichment classes for Native youth. Participating students (N=107) completed a pretest questionnaire before the 12 manualized curriculum lessons were delivered, and a post-test (85% completion) one month after the final lesson. The adapted L2W intervention, compared to keepin' it REAL, was assessed with paired t-tests, baseline adjusted general linear models, and effect size estimates (Cohen's d).

Positive Action: Positive Action (PA) is a school-based program that includes school-wide climate change and a detailed curriculum with lessons 2-4 times a week—approximately 140 15-minute lessons per grade K-6 and 82 15-20 minute lessons per grade 7 and 8. Lessons for each grade level are scripted and age-appropriate. All materials necessary to teach the lesson are provided including posters, puppets, music, games, and other hands-on materials integrated into the lessons. Students’ materials

include activity booklets, journals and other lesson aids. The content of the program is included in six units that form the foundation for the whole program. The first unit teaches the philosophy of the program and the Thoughts-Actions-Feelings about Self Circle, and provides an introduction to the nature and relevancy of positive and negative actions/behaviors. Units 2-6 teach the positive actions for the physical, intellectual, social and emotional areas. There are two school-wide climate development kits (elementary and secondary) and a Counselor's Kit. The contents delivered through the climate development and counselor kits reinforce the classroom curriculum by coordinating the efforts of the entire school in the practice and reinforcement of positive actions.

Project SUCCESS: Project SUCCESS (Schools Using Coordinated Community Efforts to Strengthen Students) is designed to prevent and reduce substance use among students 12 to 18 years of age. The program was originally developed for students attending alternative high schools who are at high risk for substance use and abuse due to poor academic performance, truancy, discipline problems, negative attitudes toward school, and parental substance abuse. In recent years, Project SUCCESS has been used in regular middle and high schools for a broader range of high-risk students. The intervention includes four components: The Prevention Education Series (PES), an eight-session alcohol, tobacco, and other drug program conducted by Project SUCCESS counselors (local staff trained by the developers) who helps students identify and resist pressures to use substances, correct misperceptions about the prevalence and acceptability of substance use, and understand the consequences of substance use. Schoolwide activities and promotional materials to increase the perception of the harm of substance use, positively change social norms about substance use, and increase enforcement of and compliance with school policies and community laws. A parent program that includes informational meetings, parent education, and the formation of a parent advisory committee. Individual and group counseling, in which the Project SUCCESS counselors conduct time-limited counseling for youth following their participation in the PES and an individual assessment. Students and parents who require more intensive counseling, treatment, or other services are referred to appropriate agencies or practitioners in the community.

Project Towards No Drug Abuse: Project Towards No Drug Abuse (TND) is a drug prevention program for high school youth who are at risk for drug use and violence-related behavior. The current version of the Project TND curriculum contains twelve 40-minute interactive sessions taught by teachers or health educators over a 3-week period. Sessions provide instruction in motivation activities to not use drugs; skills in self-control, communication, and resource acquisition; and decision-making strategies. The program is delivered universally and has been used in both traditional and alternative, high-risk high schools.

Strengthening Families: Strengthening Families 10-14 is a seven-session program for families with young adolescents that aims to enhance family protective and resiliency processes and reduce family risk related to adolescent substance abuse and other problem behaviors. The weekly, two-hour sessions include separate parent and child skills-building followed by a family session where parents and children practice the skills they have learned independently, work on conflict resolution and communication, and engage in activities to increase family cohesiveness and positive involvement of the child in the family. Parents are taught how to clarify expectations based on child development norms of adolescent substance use, using appropriate disciplinary practices, managing strong emotions regarding their children, and using effective communication. Children are taught refusal skills for dealing with peer pressure and other personal and social interactional skills. These sessions are led by three-person teams and include an average of eight families per session.

The Good Behavior Game: The Good Behavior Game (GBG) is a classroom-based behavior management strategy for elementary school that teachers use along with a school's standard instructional curricula. GBG uses a classroom-wide game format with teams and rewards to socialize children to the role of student and reduce aggressive, disruptive classroom behavior, which is a risk factor for adolescent and adult illicit drug abuse, alcohol abuse, cigarette smoking, antisocial personality disorder (ASPD), and violent and criminal behavior. In GBG classrooms, the teacher assigns all children to teams, balanced with regard to gender; aggressive, disruptive behavior; and shy, socially isolated behavior. Basic classroom rules of student behavior are posted and reviewed. When GBG is played, each team is rewarded if team members commit a total of four or fewer infractions of the classroom rules during game periods. During the first weeks of the intervention, GBG is played three times a week for 10 minutes each time during periods of the day when the classroom environment is less structured and the students are working independently of the teacher. Game periods are increased in length and frequency at regular intervals; by mid-year the game may be played every day. Initially, the teacher announces the start of a game period and gives rewards at the conclusion of the game. Later, the teacher defers rewards until the end of the school day or week. Over time, GBG is played at different times of the day, during different activities, and in different locations, so the game evolves from being highly predictable in timing and occurrence with immediate reinforcement to being unpredictable, with delayed reinforcement so that children learn that good behavior is expected at all times and in all places.

Too Good For Drugs: Too Good for Drugs (TGFD) is a school-based prevention program for kindergarten through 12th grade that builds on students' resiliency by teaching them how to be socially competent and autonomous problem solvers. The program is designed to benefit everyone in the school by providing needed education in

social and emotional competencies and by reducing risk factors and building protective factors that affect students in these age groups. TGFD focuses on developing personal and interpersonal skills to resist peer pressures, goal setting, decision-making, bonding with others, having respect for self and others, managing emotions, effective communication, and social interactions. The program also provides information about the negative consequences of drug use and the benefits of a nonviolent, drug-free lifestyle. TGFD has developmentally appropriate curricula for each grade level through 8th grade, with a separate high school curriculum for students in grades 9 through 12. The K-8 curricula each include 10 weekly, 30- to 60-minute lessons, and the high school curriculum includes 14 weekly, 1-hour lessons plus 12 optional, 1-hour "infusion" lessons designed to incorporate and reinforce skills taught in the core curriculum through academic infusion in subject areas such as English, social studies, and science/health. Ideally, implementation begins with all school personnel (e.g., teachers, secretaries, janitors) participating in a 10-hour staff development program, which can be implemented either as a series of 1-hour sessions or as a 1- or 2-day workshop.

Appendix D

Arizona Coalitions and Community Partners¹⁹

Southern Arizona

Pima County:

4R Communities Alliance – Community@ourfamilyservices.org
Ajo HOPE – Norma Gomez; Norma@azyp.org
Amistades Substance Abuse Coalition – rmjasso@amistadesinc.org
Community Prevention Coalition (CPC) of Pima County – Amy Bass; Abass@ppep.org
Arizona Youth Partnership - lorim@azyp.org; Rebekah@azyp.org
Be Med Smart – gsicobo@pcoa.org
East Tucson Substance Abuse Prevention Coalition – Susie@HealthyYouth.com
Pima Prevention Partnership – darroyo@thepartnership.us
La Frontera – jchapelle@lafrontera.org
Liberty Partnership Kino Neighborhoods Council – lpknc1@gmail.com
Luz Southside Coalition – mornelas@luzsocialservices.org
notMykid – Kristen@notmykid.org
Northwest Regional Coalition – coalition.northwestregional@gmail.com
Pima County-Tucson Commission on Addiction Prevention and Treatment – roy@qrmtucson.com
South Tucson Prevention Coalition – morduna@gmail.com
RISP-Net (Refugee and Immigrant Service Provider Network of Tucson) – jvillabaze@lafrontera.org
ADHS Prescription Drug Overdose Grant – raul.munoz@pima.gov
Healthy People Coalition – jpaxton@inaaf.org

Cochise County:

Arizona Youth Partnership – lorim@azyp.org; Rebekah@azyp.org
IMPACT Sierra Vista – IMPACTSierraVista@gmail.com
Sierra Vista Community Coalition – Melodi Polach svcommcoal@gmail.com
Douglas Area Substance Abuse Coalition
Copper Queen Community Hospital School Opioid Program – jogiba@cqch.org
Southern AZ Opioid Consortium - Hope.Thomas@tmcaz.com
Wilcox Against Substance Abuse (WASA) Coalition – Sally White, 520-384-4777; w-a-s-a.weebly.com

Santa Cruz County:

Arizona Youth Partnership – lorim@azyp.org; Rebekah@azyp.org
Santa Cruz County LDSHIP Coalition – infor@circlesofpeace.us
Santa Cruz Community Action Coalition – aromero@cenpatico.com
Santa Cruz County Drug Free Communities – Sonia Sanchez; 520-205-4780
Douglas Community Coalition – Alexandra Boneo; ntdouglas@gmail.com

Northern Arizona

¹⁹ This list should not be considered exhaustive. Please consult your local community, prevention, and substance abuse leaders in your area for more information.

Apache County:

Apache County Drug Free Alliance – dryan@lcbhc.org
Arizona Youth Partnership – lorim@azyp.org; Rebekah@azyp.org
Apache County Youth Council – Matrese Avila; avila_acyc@frontier.com

Navajo County:

Navajo County Drug Project – navajocountydrugproject@gmail.com; ncdp@ncdp.rocks
Arizona Youth Partnership – Lakeside - lorim@azyp.org; Rebekah@azyp.org
ADHS Prescription Drug Overdose Grant – amy.stradling@navajocountyaz.gov
Rx Stakeholders' Meeting – Michele.sgambelluri@navajocountyaz.gov
Nexus Coalition for Drug Prevention – vsncdp@gmail.com

Coconino County:

Coconino County Alliance Against Drugs – director@flagcasa.org
Sunnyside Neighborhood Association – 928-213- 5900
Page Anti-Drug Alliance – vida@cityofpage.org
Williams Alliance – joneill@tgcaz.org
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Appendix E

Definitions of Risk Factors

Academic Failure: Youth who experience academic failure are at a higher risk of participating in drug abuse and other problem behaviors throughout adolescence (Bryant et al., 2003; Catalano et al., 2002; Hawkins et al., 1999).

Family Conflict: Family conflict appears in the top 5 of both surveys. The importance of this risk factor can be described as Youth raised in families who experience high levels of conflict, whether or not the child is directly involved in these conflicts, are more likely to engage in delinquent behaviors and drug use (Szapocznik and Williams, 2000).

Family History of Antisocial Behavior: When youth are raised in a family with a history of problem behaviors (e.g. violence, alcohol, or other drug use), they are more likely to engage in these behaviors themselves (Corrigan et al., 2007).

Attitudes Favorable toward Drug Use: As youth grow older, they have a higher likelihood of being exposed to others who engage in drug use or have a greater acceptance of these behaviors. This exposure may influence a youth's attitude toward drug use and increase the likelihood of them engaging in a variety of problem behaviors (Arthur et al., 2002; Bahr et al., 2005; Bauman and Ennett, 1996; Beyers et al., 2004). This factor examines how wrong youth perceive it is to use four different substance groups: alcohol, cigarettes, marijuana, and LSD/cocaine/amphetamines/illegal drugs.

Friends' Use of Drugs: Youth who spend time with friends who engage in substance use are more likely to engage in the same behavior. Peer drug use has consistently been found to be among the strongest predictors of substance use among youth (Beyers et al., 2004; Iannotti et al., 1996; Yamaguchi and Kandel, 1984).

Laws and Norms Favorable toward Drug Use: Legal restrictions on substance use, such as raising the legal drinking age or restricting smoking in public places, may influence the degree to which youth consume these substances. Moreover, youth who live in communities that view substance use as "normal activity" have a higher chance of using substances themselves (Arthur et al., 2002; Cleveland et al., 2008; Hawkins et al., 2002). Participants were asked if adults in their neighborhood would think it is wrong for them to use substances, or if they were likely to be caught by law enforcement when using substances.

Low Commitment to School: Youth who do not feel connected to or have low commitment to school are more likely to use drugs and participate in other problem behaviors. Low school commitment is measured through items such as disliking school, spending little time on homework, and perceiving course work as irrelevant to one's future (Brown et al., 2005; Catalano et al., 2002).

Early Initiation of Drug Use: Early onset of drug use has been linked to increased drug use and abuse through adolescence and beyond, with later age of onset more likely to

lead to reduced drug involvement and a greater likelihood of discontinuation of use (Kandel, 1975; Miller et al., 2006). To assess the scope of onset among the sample, this factor looks at the age at which youth first tried cigarettes, marijuana, or alcohol, and when youth first began drinking regularly.

Poor Family Management: Parents' use of inconsistent and/or unusually harsh punishment with their children places their children at a higher risk for participation in substance use and other problem behaviors. This higher risk is also seen in youth whose parents do not provide clear explanations for expected behaviors and do not monitor their children's activities (Arthur et al., 2002; Dishion et al., 2004). Youth were asked if their parents usually know who they are spending time with, if there are clear rules in their household, and if their parents would be aware of the youth's participation in problem behaviors.

Definitions of Protective Factors

Belief in the Moral Order: Youth who have a belief in what is "right" or "wrong" are less likely to use drugs (Beyers et al., 2004; Catalano et al., 1996).

Bonding to Adults, Peers and Community: Rewards for positive participation in activities helps youth bond to their communities, and lowers their risk of participating in problem behaviors. When neighbors encourage them to try their best in various activities, talk with them regarding something important, and if community members ever inform the youth that they are proud of them for doing something well all lower student's risk of problem behaviors (Catalano et al., 1996; Cleveland et al., 2008).

School Opportunities for Prosocial Involvement: When youth are given opportunities to participate meaningfully in important activities at school, they are less likely to engage in drug use and other problem behaviors (Arthur et al., 2002; Beyers et al., 2004; Catalano et al., 1992). Youth were asked about having the chance to participate in school activities, being asked to work on special projects in the classroom, and being able to speak with their teacher one-on-one.

Interaction with Prosocial Peers: Youth who associate with peers who engage in prosocial behavior are more likely to participate in prosocial behavior as well.

Prosocial Involvement: Youth who participate in positive school and community activities are less likely to participate in problem behaviors (Arthur et al., 2002; Beyers et al., 2004; Catalano et al., 1996).

Rewards for Prosocial Involvement: Youth who are rewarded for working hard in school and the community are less likely to engage in problem behaviors. Rewards for prosocial involvement include being seen as cool for trying your best at school,

defending someone who is being bullied, or regularly volunteering in the community (Catalano et al., 1996; Cleveland et al., 2008).

Family Attachment: Youth who feel that they are close to or are a valued part of their family are less likely to engage in substance use and other problem behaviors (Arthur et al., 2002; Catalano et al., 1992). Youth were asked questions regarding if they feel close to their family members and if they share thoughts and feelings with their mother and father.

References

- Arizona Department of Education. (2017). *Annual Report of the Arizona Superintendent of Public Instruction*. Arizona Department of Education, Phoenix. Retrieved May 10, 2018, from <http://www.azed.gov/finance/finance/files/2018/01/2017SAFR.zip>
- Arthur, M. W., Hawkins, J. D., Pollard, J. A., Catalano, R. F., and Baglioni, A. J. J. (2002). Measuring risk and protective factors for use, delinquency, and other adolescent problem behaviors the communities that care youth survey. *Evaluation Review*, 26(6): 575–601.
- Bahr, S. J., Hoffmann, J. P., and Yang, X. (2005). Parental and peer influences on the risk of adolescent drug use. *Journal of Primary Prevention*, 26(6): 529–551.
- Bauman, K. E. and Ennett, S. T. (1996). On the importance of peer influence for adolescent drug use: commonly neglected considerations. *Addiction*, 91(2): 185–198.
- Bryant, A. L., Schulenberg, J. E., O'Malley, P. M., Bachman, J. G., and Johnston, L. D. (2003). How academic achievement, attitudes, and behaviors relate to the course of substance use during adolescence: a 6-year, multiwave national longitudinal study. *Journal of Research on Adolescence*, 13(3): 361–397.
- Beyers, J. M., Toumbourou, J. W., Catalano, R. F., Arthur, M. W., and Hawkins, J. D. (2004). A crossnational comparison of risk and protective factors for adolescent substance use: the United States and Australia. *Journal of Adolescent Health*, 35(1): 3–16.
- Brown, E. C., Catalano, R. F., Fleming, C. B., Haggerty, K. P., and Abbott, R. D. (2005). Adolescent substance use outcomes in the Raising Healthy Children project: a two-part latent growth curve analysis. *Journal of Consulting and Clinical Psychology*, 73(4): 699–710.
- Castro, F. G., Barrera, M., & Martinez, C. R. (2004). The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science*, 5, 41-45.
- Catalano, R. F., Hawkins, J. D., Berglund, M. L., Pollard, J. A., and Arthur, M. W. (2002). Prevention science and positive youth development: competitive or cooperative frameworks? *Journal of Adolescent Health*, 31(6): 230–239.
- Catalano, R. F., Kosterman, R., Hawkins, J. D., Newcomb, M. D., and Abbott, R. D. (1996). Modeling the etiology of adolescent substance use: A test of the social development model. *Journal of Drug Issues*, 26(2): 429–455.

- Catalano, R. F., Morrison, D. M., Wells, E. A., Gillmore, M. R., Iritani, B., and Hawkins, J. D. (1992). Ethnic differences in family factors related to early drug initiation. *Journal of Studies on Alcohol*, 53(3): 208–217.
- Cleveland, M. J., Feinberg, M. E., Bontempo, D. E., and Greenberg, M. T. (2008). The role of risk and protective factors in substance use across adolescence. *Journal of Adolescent Health*, 43(2): 157–164.
- Corrigan, M. J., Loneck, B., Videka, L., and Brown, M. C. (2007). Moving the risk and protective factor framework toward individualized assessment in adolescent substance abuse prevention. *Journal of Child & Adolescent Substance Abuse*, 16(3): 17–34
- Dishion, T. J., Nelson, S. E., and Bullock, B. M. (2004). Premature adolescent autonomy: Parent disengagement and deviant peer process in the amplification of problem behaviour. *Journal of Adolescence*, 27(5): 515–530.
- Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC: HHS, November 2016.
- Hawkins, J. D., Catalano, R. F., and Arthur, M. W. (2002). Promoting science-based prevention in communities. *Addictive Behaviors*, 27(6): 951–976.
- Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R., and Hill, K. G. (1999). Preventing adolescent health-risk behaviors by strengthening protection during childhood. *Archives of Pediatrics & Adolescent Medicine*, 153(3): 226–234.
- Hawkins, J. D., Catalano, R. F., and Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. *Psychological Bulletin*, 112(1): 64–105.
- Iannotti, R.J., Bush, P.J., and Weinfurt, K.P.(1996). Perception of friends' use of alcohol, cigarettes, and marijuana among urban schoolchildren: a longitudinal analysis. *Addictive Behaviors*, 21(5): 615–632.
- Kandel, D. (1975). Stages in adolescent involvement in drug use. *Science*, 190(4217): 912–914.
- McDowell Group. (2018). *Protective Factors for Youth Substance Abuse and Delinquency: The Role of Afterschool Programs*. Anchorage: Alaska Afterschool Network.

- Miller, C. L., Strathdee, S. A., Kerr, T., Li, K., and Wood, E. (2006). Factors associated with early adolescent initiation into injection drug use: implications for intervention programs. *Journal of Adolescent Health, 38*(4): 462–464.
- Reeves, L. R., Dustman, P. A., Harthun, M. L., Kulis, S., & Brown, E. F. (2013). American Indians' cultures: How CBPR illuminated inter-tribal cultural elements fundamental to an adaptation effort. *Prevention Science*. PMID: PMC23412946.
- Sigfusdottir, I. D., Thorlindsson, T., Kristjansson, A. L., Roe, K. M., & Allegrante, J. P. (2008). Substance use prevention for adolescents: the Icelandic Model. *Health Promotion International, 24*(1), 16-25. doi: 10.1093/heapro/dan038
- Spoth, R., Trudeau, L., Shin, C., Ralston, E., Redmond, C., Greenberg, M., & Feinberg, M. (2013). Longitudinal Effects of Universal Preventive Intervention on Prescription Drug Misuse: Three Randomized Controlled Trials With Late Adolescents and Young Adults. *American Journal of Public Health, 103*(4), 665-672.
- Szapocznik, J. and Williams, R. A. (2000). Brief strategic family therapy: twenty-five years of interplay among theory, research and practice in adolescent behavior problems and drug abuse. *Clinical Child and Family Psychology Review, 3*(2): 117–134.
- Yamaguchi, K. and Kandel, D. B. (1984). Patterns of drug use from adolescence to young adulthood: 3 predictors of progression. *American Journal of Public Health, 74*(7): 673–681.