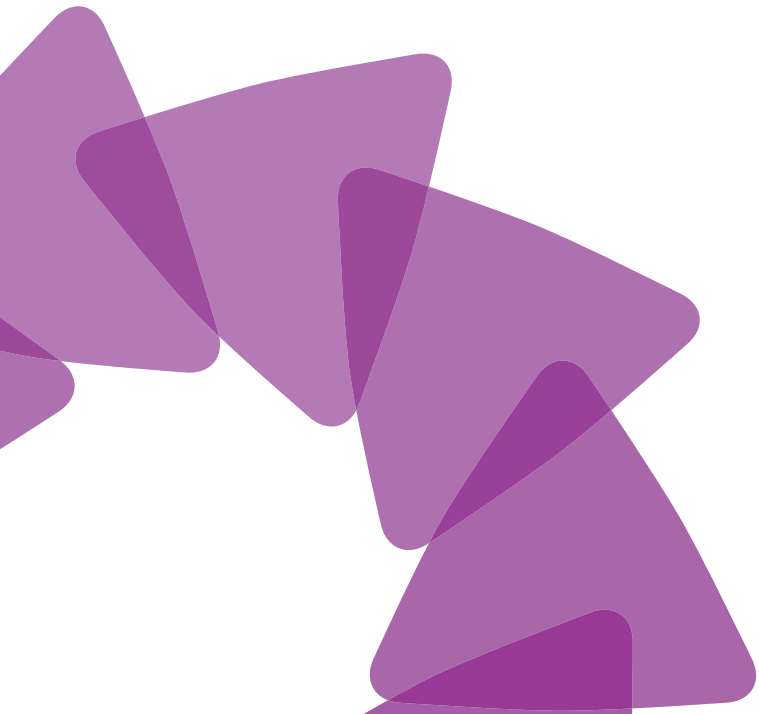
Transforming Youth Recovery

One Community, One School, One Student At A Time

Closing the Gap

An examination of access to Best-In-Class evidence-based alcohol and other drug prevention programs for K-12 students in the U.S.



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About Transforming Youth Recovery

We approach every effort from a capacity-building perspective. This starts by making visible the assets, connections and resulting practices that can contribute to healthy and thriving lifestyles among young people. Specific attention is given to those at-risk for drug and alcohol substance use disorders or misuse. The 2012 National Survey on Drug Use and Health found that an estimated 23.9 million Americans age 12 and over (9.2% of the population) were current illicit drug users, of which 2.4 million were young people between the ages of 12-17. Additionally, an estimated 9.3 million underage persons (aged 12 to 20) were current drinkers of alcohol in 2012, including 5.9 million binge drinkers and 1.7 million heavy drinkers. This reflects a public health issue that we are looking to address without hesitation.

Our studies seek to find those promising prevention, intervention and recovery practices that we should be calling upon more often, in more places, with greater consistency. When we find places where such practices live and breathe, we commit to rapidly spreading that knowledge so that connected networks can take collective action.

Our intention is to build networks across boundaries of influence to better reach students, parents, educators and community leaders. This is undertaken by partnering with those who are committed to the implementation of evidence-based practices that positively impact the well-being of young people and their families.

In all we do, we stay ever mindful that our work aims to positively influence the everyday attitudes and beliefs found in educational, community and social settings. This is a reflection of the idea that change happens one community, one school, one student at a time.

Foreword: Addressing a Prevention Gap

This study was initiated for two reasons. First was an intention to help all those educators, counselors and community leaders who have been instructed by someone to, "Go out and select a good prevention program for our students and families." Second was a desire to better understand where effective alcohol and other drug school-based prevention programs were being applied in U.S. public schools.

In early 2005, a group of researchers examined the prevalence of evidence and school-based substance abuse prevention programs in high schools across the U.S. (Ringwalt et al. 2008). Information was gathered using surveys based upon a random sample of middle schools and high schools. Researchers then gathered sequential data from each school's drug prevention coordinators. Findings indicated that 56.5% of U.S. high schools implemented some form of substance abuse prevention in current health curriculum, yet only 10.3% used evidence-based curriculum. This research is indicative of an alarming gap between the number of students who have access to effective evidence-based alcohol and other drug prevention programs and the total number of K-12 students in the U.S.

The need to close the access gap to effective evidence-based alcohol and other drug prevention programs is undeniable.

- Approximately 144,000 adolescents receive treatment for substance use disorders every year; however, this represents only about 10% of youth who meet accepted diagnostic criteria for at least one substance use disorder (U.S. Department of Education 2011).
- Of adolescents entering addiction treatment in the U.S., 85% begin regular use of alcohol and other drugs before the age of 15 (Dennis et. al. 2004). Early initiation to alcohol use increases the risk of a variety of development problems during adolescence and problems later in life. Accordingly, delaying the onset of alcohol initiation may significantly improve later life health.
- Slightly fewer than one million (972,000) persons who initiated alcohol use in the past year reported they were ages 12 to 14 when they initiated (SAMHSA 2013). This translates to approximately 2,660 youth ages 12 to 14 who initiated alcohol use *per day* in 2011 (SAMHSA 2013).
- Studies have found that 45% of adults who began drinking by age 14 became dependent on alcohol at some point in their lifetimes versus 9% who began drinking at age 21 or later (Hingson, Heeren, & Winter 2006).
- Despite severe and lasting consequences of teen alcohol and other drug use—accidents, unintentional overdoses, violence, sexual trauma and legal issues—the majority of parents today are relatively unconcerned about the threat to their children. A 2013 survey of 2,454 parents with children between the ages of 12 to 24 conducted on behalf of the Hazelden Betty Ford Foundation suggests that most parents are both under concerned about the dangers of children using alcohol and other drugs and overly confident that they, as parents, would recognize signs of use. Even though almost eight in 10 (78.9%) parents think they have adequate education about child alcohol and other drug abuse, on average they could name only two out of 38 commonly known warning signs, or indications that a child is drinking or using drugs. And, nearly six in 10 (59.2%) parents of youth ages 12 to 24 say that they are not concerned about their children's possible use or abuse of alcohol or other drugs (Hazelden 2014).

While research continues to show that parental involvement is an effective way to prevent alcohol and drug addiction among youth, there is a clear recognition that schools are meant to be vital contributors to the prevention and intervention of health risking behaviors among students in the U.S.

The percentage of school districts required to teach alcohol and other drug use prevention ranges by school level from 78.4% in elementary schools to 86.6% in middle schools to 86.1% in high schools (Centers for Disease Control and Prevention 2012b). Nationwide, 74% of states have adopted health education standards based on the 2007 National Health Education Standards (Centers for Disease Control and Prevention 2012a, pg. 21). Among all districts, 64.8% required or recommended health education standards or guidelines that were based on the 2007 NHES (Centers for Disease Control and Prevention 2012a, pg. 25). Foundational to these standards is assurance of the student's ability to demonstrate healthy practices and behaviors that will maintain or improve the health of self and others. However, there is a gap between the evidence-based practices being applied to fulfill that public health service intention. Only 12.5% of U.S. school districts have a school-based health center that offers both health services and mental health or social services to students (Centers for Disease Control and Prevention 2012a, pg. 53). Between 2010 and 2012, only 60.8% of states or 66% of districts provided funding for professional development for those who teach alcohol or drug prevention (Centers for Disease Control and Prevention 2012a, pg. 26). And, only 5% of federal drug control spending is allocated to prevention programs (ONDCP 2014).

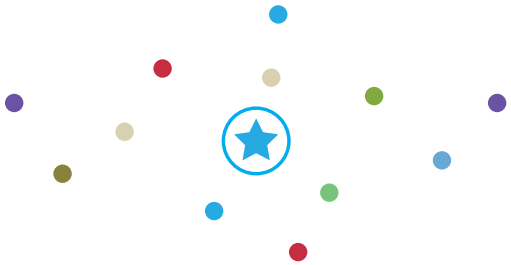
While more than three-quarters of all U.S. school districts require or recommend the 'teaching' of alcohol and other drug use prevention, the use of effective programs has been shown as alarming low.

> *The history of prevention efforts over the last three decades has shown the body of research on effective interventions has dramatically grown; however, we have not seen a corresponding increase in the use of effective programs. Examination of public health and prevention practices in the field suggests that those innovations that have been found most effective in prevention research are not necessarily those most commonly used in practice. Findings such as these illustrate the importance of seeking ways to decrease the gap between science and practice (Wandersman et. al. 2008).*

While the research on effective prevention programs has dramatically grown, access to such programs is limited. Of importance is the need to better understand where and why access gaps are occurring in U.S. school districts. However, access to information associated with where programs are being implemented and who is implementing them is limited and diffuse. In and of itself, this may be limiting the broad dissemination of effective programs and creating a barrier to the collective action required to move research-based prevention principles into population-level practice.

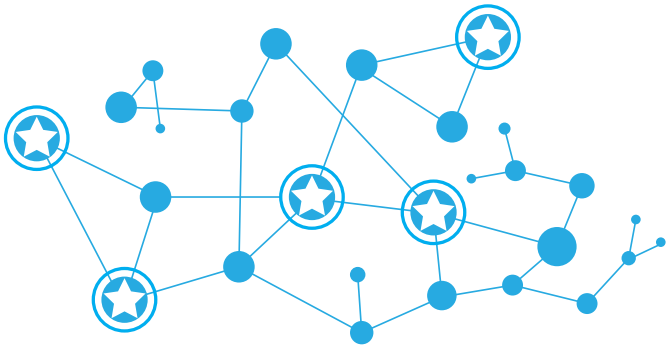
There are three specific actions that, if assembled, can contribute to the collective action required to close the access gap to effective, evidence-based alcohol and other drug prevention programs available to K-12 students in the U.S.

Action #1: We must identify and make known the Best-In-Class[1] evidence-based alcohol and other drug prevention programs available to K-12 students in the U.S.



Action #2: Once we identify those programs, we must find and map the prevention practices that accompany effective program implementation so as to build capacity for broader dissemination of Best-In-Class prevention programs.

Action #3: We must cultivate a network of parents, schools, governmental agencies, organizations and communities that can accelerate the sharing and implementation of thriving prevention practices in support of national youth health standards and public health services.



1. This study defines Best-In-Class as a prevention program that has received the highest level of evaluation by at least one evaluator, received a second highest level evaluation by at least one more evaluator and have received no negative or no effect evaluations where negative and no effect evaluations are made public.

This study focuses on the first idea for collective action and presents outcomes from research activities to identify the Best-In-Class evidence-based alcohol and other drug prevention programs available for K-12 students in the U.S. The remaining two collective actions are purposefully incomplete and signal the work yet to be done.

Our progress on the collective actions introduced in this study can be monitored by visiting http://transformingyouthrecovery.org.

The mapping of Best-In-Class evidence-based alcohol and other drug prevention programs and thriving school-based prevention practices can be accessed by visiting www.capacitype.com.

Further contributions to the networked capacity-building effort is welcome from prevention researchers and practitioners as we strive to promote general health and well-being among all students across the U.S.

Introduction:

Summary of Ideas for Collective Action to Close the Gap on Access to Best-In-Class Evidence-Based Alcohol and Other Drug Prevention Programs Available for K-12 Students in the U.S.

In literature, 'prevention', which is designed to prevent or reduce diseases and related problems, is often distinguished from 'health promotion', which is focused on well-being. Consistent with those who argue for a synthesis of prevention and health promotion approaches, the term 'prevention', as used throughout this study, refers to both types of efforts. Prevention practices therefore refer to the identification of risk and protective factors, the prevention of social, physical, mental health and academic problems and the dissemination of that information to promote general health and well-being (Spoth et. al. 2013). Similarly, literature often references 'intervention' when discussing prevention practices. While prevention aims to promote general health and well-being, intervention refers to prevention practices specifically designed to address a present health or well-being issue or problem. Again, prevention as used throughout this study refers to both types of efforts in recognition that prevention practices can be applied, where appropriate, to positively change a problem in need of attention (SAMHSA 2014a).

Alcohol and drug use has a significant influence on public health and this cannot be overstated. Yet, alcohol and other drug prevention programs and policies have been and continue to be publicly viewed as a criminal justice intervention in a war on illicit drugs. Access to alcohol and other drug prevention programs and helping schools and communities deliver such programs should be viewed for what it is - a critical public health initiative. As such, prevention practices at-large can benefit greatly from expanded public health attention and migration away from a perception of being adequately supported through criminal justice and educational resources. Although school-based health promotion has existed in the U.S. for more than six decades and school-based alcohol and other drug prevention programs are closing in on 30 years of existence, there remains a gap; access to evidence-based alcohol and other drug prevention programs is limited due in part to the a lack of coordination among isolated efforts.

> *In the U.S., we are failing to reach those in need of evidence-based prevention and health promotion interventions. A number of studies have shown that only a relatively small percentage of interventions implemented by community-based program delivery systems (e.g. public schools, healthcare facilities, social service agencies) are evidence-based, indicating there is limited public access, along with problematic disparities in access to these services. Moreover, a high percentage of evidence-based interventions are being implemented without quality or fidelity; thus, they are unlikely to achieve the intended outcomes (Spoth et. al. 2013).*

The first part of this study examines the historical pathways of alcohol and other drug prevention efforts in relation to school-based health services in the U.S. This examination shows converging connections between alcohol and other drug prevention practices and practices being implemented for general health and well-being. These connections bring with them the opportunity for population-level public health

change through cross-sector participation rather than from isolated interventions being lead by individual organizations, schools or communities.

The reality is that a multitude of prevention assets already exist in the U.S. There are countless individuals, organizations and communities working to implement evidence-based alcohol and other drug prevention programs; however, it is only through increased connections and coordination that prevention practices can be adopted and implemented to the fullest of their potential. This action is best summarized by authors John Kania and Mark Kramer in a 2011 Stanford Social Innovation Review publication:

> *Nearly 1.4 million nonprofits try to invent independent solutions to major social problems, often working at odds with each other and exponentially increasing the perceived resources required to make meaningful progress. Recent trends have only reinforced this perspective. The growing interest in venture philanthropy and social entrepreneurship, for example, has greatly benefited the social sector by identifying and accelerating the growth of many high-performing nonprofits, yet it has also accentuated an emphasis on scaling up a few select organizations as the key to social progress. Despite the dominance of this approach, there is scant evidence that isolated initiatives are the best way to solve many social problems in today's complex and interdependent world. The problem with relying on the isolated impact of individual organizations is further compounded by the isolation of the nonprofit sector. Social problems arise from the interplay of governmental and commercial activities, not only from the behavior of social sector organizations. As a result, complex problems can be solved only by cross-sector coalitions that engage those outside the nonprofit sector. Shifting from isolated impact to collective impact is not merely a matter of encouraging more collaboration or public-private partnerships. It requires a systemic approach to social impact that focuses on the relationships between organizations and the progress toward shared objectives (Kania & Kramer 2011).*

The summary timeline that follows, detailed further in Section 1 of this study, illustrates the nature of efforts now being made by federal agencies, researchers, prevention practitioners, educational institutions, communities and families to increase health promotion in schools and create opportunities to access evidence-based alcohol and other drug prevention programs. The fact that K-12 student access to effective evidence-based prevention programs is limited suggests that better coordination among efforts is a critical action needed for expanded access.

The second part of the study is dedicated to the first of three specific actions that, if assembled, could contribute to the collective action required to expand access to effective evidence-based ("Best-In-Class") alcohol and other drug prevention programs available to K-12 students in the U.S. The initial work required for the identification portion of Action #1 is presented as a part of this study. The remaining actions stand as the work to be undertaken and are noted in this introduction to frame the intentions behind that work.

Summary Timeline: Historical Pathway of Health Promotion Efforts in the U.S.

- 1946 — National School Lunch Program
- 1956 — President's Council on Youth Fitness
- 1968 — Bureau of Narcotics and Dangerous Drugs
- 1969 — White House Conference on Hunger
- 1970 — Drug Abuse Prevention and Control Act
- 1975 — Education of All Handicapped Children Act
- 1977 — Nutrition Education and Training Program
- 1982 — *Just Say No*
- 1983 — Expansion of Sexual Education in Schools
- 1983 — DARE
- 1984 — Smith vs Robinson, Right to Education
- 1984 — National Minimum Drinking Age Act
- 1986 — DEA launches Drug Prevention Program
- 1987 — *Partnership for a Drug Free America releases This is your brain on drugs*
- 1988 — ONDCP is established
- 1990 — Individuals with Disabilities Act
- 1992 — SAMHSA is established
- 1992 — *A friend who offers you drugs is not a friend*
- 1994 — Healthy School Meals
- 1995 — Drug testing in schools
- 1996 — Blueprints for Healthy Youth Development is founded
- 1997 — NIDA lists of research-based programs
- 1998 — Enforcing Underage Drinking Laws Act
- 1998 — Promising Practices Network launches
- 1999 — Surgeon General's Report on Mental Health
- 2001 — National Community Anti-Drug Coalition Institute
- 2001 — Coalition for Evidence-Based Policy
- 2001 — DoJ publishes evidence-based ratings
- 2002 — Child Trends opens DataBank
- 2004 — Individuals with Disabilities Education Act (IDEA)
- 2004 — Interagency Coordinating Committee on the Prevention of Underage Drinking
- 2004 — Review and endorsement of PROSPER
- 2005 — *Just Think Twice*
- 2005 — California Healthy Kids Resource Center posts reseach-validated criteria
- 2005 — Prevention Services Task Force publishes 'Community Guide'
- 2006 — STOP Underage Drinking Act
- 2007 — Call to Action to Prevent and Reduce Underage Drinking
- 2007 — SAMHSA releases NREPP registry
- 2008 — *Get Smart on Drugs*
- 2008 — Interagency Working Group on Youth is created
- 2009 — Expansion of rights protected under IDEA
- 2009 — President's Teen Preganancy Prevention Initiative
- 2009 — Drug Free Communities Support Program
- 2010 — Office of Adolescent Health is created
- 2010 — Funding for alcohol and drug counseling
- 2010 — Gallup Press publishes report on 'Wellbeing'
- 2010 — *Above the Influence*
- 2010 — Prescription Drug Abuse Prevention Plan
- 2010 — Project Neighborhoods Consortium is funded
- 2013 — PSTF makes 1st recommendation on alcohol abuse

Action #1: Identifying and making known the Best-In-Class evidence-based alcohol and other drug prevention programs.

> *Research has shown that the key risk periods for drug abuse occur during major transitions in children's lives. The first big transition for children is when they leave the security of the family and enter school. When they advance from elementary school to middle or junior high school, they often experience new academic and social situations, such as learning to get along with a wider group of peers and having greater expectations for academic performance. It is at this stage—early adolescence—that children are likely to encounter drug abuse for the first time. When they enter high school, young people face additional social, psychological and educational challenges. At the same time, they may be exposed to greater availability of drugs, drug abusers and social engagements involving drugs. Risks appear at every transition from early childhood through young adulthood; therefore, prevention planners need to consider their target audiences and implement programs that provide support appropriate for each developmental stage. They also need to consider how the protective factors involved in these transitions can be strengthened (NIDA 2003, pg. 9-10).*

This study presents a methodology for identifying the Best-In-Class evidence-based alcohol and other drug prevention programs available for school-aged individuals (i.e. K-12 students) as determined by comparative analysis across qualified evaluators. Advances in prevention science have provided a growing list of programs intended to prevent health risking behaviors, inclusive of alcohol and other drug use, among youth. A review and compilation of registries (SAMHSA's National Registry of Evidence-Based Programs and Practices (NREPP), The Community Guide: Community Prevention Services Task Force, Child Trends, California Healthy Kids Resources Center, Communities that Care, Promoting School/Community-University Partnerships To Enhance Resilience, Promise Neighborhoods Consortium, CADCA, NIDA and the Annual Report to Congress on the Prevention and Reduction of Underage Drinking) created by agencies and organizations that present themselves as keeping an inventory of substance abuse prevention programs for youth in school grades K-12 results in a list 213 prospective prevention programs. When duplicate programs are removed a list of 141 prevention programs results. While prevention program choices for schools and communities appear abundant, widespread dissemination and high-quality implementation of those programs and policies deemed effective through evidence-based evaluation is not apparent (Hawkins et. al. 2009).

Importantly, a program's appearance on a national registry list is not necessarily an indication of effectiveness. It has only been through the emergence of noted prevention program evaluators (Blueprints for Healthy Youth Development, Promising Practices Network, Coalition for Evidence-Based Policy, Office of Justice Programs, CrimeSolutions.gov, Find Youth Info and Office of Juvenile Justice and Delinquency Prevention) that we are able to verify information contained within registries and assess prevention program effectiveness.

This study acknowledges that there are likely many effective programs and interventions that exist that do not appear on such registries or evaluator sites as their core program components may not allow them to be evaluated as evidence-based. Spoth et. al. have indicated the need for this type of information to be published and communicated in a manner that is accessible and easy to understand for specific audiences, yet detailed enough to allow for informed decision making. Progress in addressing this barrier is being made by websites summarizing relevant evidence-based alcohol and other drug prevention programs. However, to date, the application of scientific criteria to identify interventions (prevention practices) as 'evidence-based' has been inconsistent

across the organizations that create registries and evaluate these programs (Spoth et. al. 2013). This study cross-references the information contained on these websites to aid in informed decision-making. Additionally, this cross-referencing of independent registries and evaluators has been applied in an attempt to encourage coordination and connections between such efforts by highlighting their shared objectives.

Although many registries and evaluators note the evaluations of other entities, none appear to comment on or make a statement regarding variations in findings among evaluators. Of the 141 prospective prevention programs on national registries, a limited number have received relatively complimentary evaluations by more than one prevention program evaluator. By cross-referencing those that have been assessed by evaluators, Best-In-Class evidence-based alcohol and other drug prevention programs can be identified for students in grades K-12. This referencing suggests that there are 17 evidence-based alcohol and other drug prevention programs available to educators, parents and community leaders in the U.S. that have received relatively complimentary evaluations by two or more evaluators. However, when conducting further analysis of those 17 programs, two programs require further research to ensure that the outcome settings are in line with the objectives of this study (i.e. applicable to students in grades K-12 and offered in association with a school-based setting).

The Society for Prevention Research has proposed that organizations utilize a rigorous set of scientific criteria for identifying evidence-based prevention practices (referred to as alcohol and other drug prevention programs in this paper) (Flay et. al. 2005). Scientists and practitioner communities, however, can have differing views about the appropriate standards to apply. This contributes to information dissemination that is perceived as inconsistent by the government, scientists and practitioners alike. To avoid the perception of inconsistent standards and related confusion, it is critical that the information infrastructure—websites and other channels for communication and dissemination—provide clear information about the criteria used in evaluating effectiveness, as well as consistent and valid information about program content, core components, implementation support, appropriate target populations and human labor and other infrastructure costs associated with program implementation (Spoth et. al. 2013). This inconsistency can be of value to the field if it results in a rigorous and aligned evaluation methodology at some point in the near future. However, in the meantime, cross-referencing among these different viewpoints has been undertaken as a start.

Once cross-referenced, 17 Best-In-Class evidence-based alcohol and other drug prevention programs were identified and clear, consistent and valid information about each program was collected to establish a single repository for viewing this information in a condensed format.

For 12 of the 17 evidence-based alcohol and other drug prevention programs (five programs did not respond to researcher inquiries), one-on-one interviews were conducted with program owners in order to validate information from registries and evaluators and gather additional information regarding program implementation locations within school districts and communities. Throughout this work, researchers refrained from making additional evaluations of programs; this work consisted primarily of cross-referencing prior evaluations and identifying Best-In-Class programs based on overlap and shared perspectives of prior evaluations. Interviews were conducted in order validate cross-referenced, public data and to begin to understand where these programs are being implemented with fidelity.

Action #2: Finding and mapping the prevention practices that accompany effective program implementation so as to build capacity for broader dissemination of Best-In-Class alcohol and other drug prevention programs.

The collective action needed to expand access to Best-In-Class alcohol and other drug prevention programs will require looking at prevention practices in real-world conditions in order to fully understanding *how* connections form and act to protect youth from health-risking behaviors. This reflects a need to reveal evidence of research-based prevention principles in practice.

This study postulates that as connections within and around programs, communities and social networks strengthen, finding and mapping thriving prevention practices in the U.S. – locations where youth, parents, educators and community leaders benefit from strong connections between prevention support systems (those who conceive and assist evidence-based prevention practices) and prevention delivery systems (those who implement and benefit from evidence-based prevention practices) – can be a way to continuously reveal evidence of prevention principles that work in practice.

> *We are unaware of any research or systematic efforts to examine or strengthen connections among these systems. The amount of interaction currently taking place between the (prevention support and prevention delivery) systems is not known. Likewise, we do not know how best to promote interactions between the systems. While these interactions were not (our) primary focus, it may be that the greatest contribution to enhancing dissemination and implementation may lie in these interactions (Wandersman et. al. 2008).*

What is known are the core practices identified in research that programs need to incorporate to be effective. These include appropriate structure and content, adequate resources for training and materials and other "fidelity of implementation" requirements. Prevention programs can be designed to intervene as early as preschool to address risk factors for drug abuse, such as aggressive behavior, poor social skills and academic difficulties. Prevention programs for elementary school children should target improving academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure and school dropout. Evidence is emerging that a major risk for school failure is a child's inability to read by the third and fourth grades and school failure is strongly associated with drug abuse (Barrera et al. 2002). Prevention programs for middle or junior high and high school students should increase academic and social competence. Overall, prevention programs aimed at general populations at key transition points, such as the transition to middle school, can produce beneficial effects even among high-risk families and children. And, community prevention programs that combine two or more effective programs, such as family-focused and school-based programs, can be more effective than a single program alone (NIDA 2003).

The bridge between prevention programs and their impact on students is in the implementation. The key to understanding how successful research can be translated into successful practice lies in understanding how programs and policies are implemented when the programmatic objectives intended by program developers are achieved. To assist in revealing principles in practice, an initial set of inquiry-based questions are offered to guide a better understanding of the individual, family, peer, school and community-based interactions and connections that are present wherever thriving prevention practices are happening.

- *What are the evidence-based programs and interactions that are positively influencing prevention efforts and general population well-being? (Looking for influences.)*
- *What relationships and connections are actively changing individual, peer and community attitudes and behaviors? What prevention actions and interactions can be seen and pointed to as impactful? (Looking for connections.)*
- *How are families, schools and community members demonstrating a common interest in health protection for youth? (Looking for practices.)*
- *How do you know you are making progress? (Looking for what good looks like.)*

The forward looking intention is to undertake this inquiry in a transparent manner and openly share learning with parents, educators and community leaders. Beyond the visible demonstration of where capacity is building for thriving prevention practices, the goal is to reveal a set of indicators that could signal progress during the implementation of prevention practices at family, school and community levels.

Additionally, the identification and "mapping" of such places is further meant to directly assist those researchers calling for Type 2 (T2) translation research for alcohol and other drug prevention practices. Broadly speaking, T2 translation research investigates the networked processes through which Best-In-Class programs can be integrated into practice on a large scale, across targeted populations and settings. Despite its critically important role in achieving public health intentions, such research has been limited.

> *A key barrier is limited funding devoted to T2 translation, which reflects missed opportunities for prevention and health promotion in the U.S. As Woolf (2008) emphasizes, program and policy priorities typically are not based on a careful assessment of population needs or consideration of the EBIs (evidence-based interventions) most likely to address specific priority needs efficiently and effectively. There are many reasons for the limited investment in evidence-based prevention, ranging from a lack of public awareness to competing resource allocation priorities at federal, state and local levels, priorities which typically favor treatment over preventive interventions. Despite the potential for widespread adoption of effective prevention interventions to reduce costly treatments, only an estimated 2 to 3% of governmental healthcare spending is directed toward them. Further, the majority of NIH funding is devoted to basic 'discovery research' or Type 1 translation research (Spoth et. al 2013).*

In summation, collective action is needed to overcome common barriers working against the decision to adopt a Best-In-Class alcohol and other drug prevention program in schools and communities. Such barriers include a crowded and inconsistent market of information on effective and evidence-based programs. Information about what works should be published and communicated in a manner that is accessible and easy to understand for specific audiences, yet detailed enough to allow for informed decision making. At present, there are many independent efforts yielding a plethora of information that makes the informed selection of a program an extremely challenging task. Making visible the programs and practices that work is a critical step toward building capacity needed to close the access gap for K-12 students in the U.S.

Action #3: Cultivating a network of parents, schools, governmental agencies, organizations and communities that can accelerate the sharing and implementation of thriving alcohol and other drug prevention practices in support of national health standards and intended public health services.

The scope of health services offered through schools has grown over the past 30 years in proportion to the role that states play in providing universal education within an environment that promotes positive youth development. Service extensions often begin with a headline: a scare over immunizations, a report on malnutrition, an expose on drug abuse or a court ruling on a child's right to education. As the public becomes aware of each issue that threatens youth health and development, they pressure the state to respond with policies or programs to address that issue. Over time, awareness of these issues evolves into a deeper understanding of their root causes; this has included the recognition that multiple factors must be considered for any singular health issue and that the social, peer, family and community environments play a critical role in any student's well-being. With this understanding, school and community-based health services have evolved from reactive, problem-based responses into proactive practices aimed at health promotion.

Through the lens of health promotion, a clear connection can be seen between issues that were once viewed as separate; a child is influenced by their environment and education is not enough to ensure health risk prevention - there is a connection between factors that contribute to health, well-being and positive youth development. And so, while alcohol and other drug prevention efforts and school-based health promotion have each taken a distinct path to get there, by the turn of this century there was a convergence around prevention, health and well-being practices.

Using evidence-based prevention programs and health promotion practices has become a requirement for support and funding by many state and federal agencies, such as the CDC, SAMHSA and the Department of Ed. The dissemination of evidence-based prevention programs and practices has been identified as one way that schools and communities can influence social policy and create positive social change (Wandersman 2008, pg. 171). As such, these programs and practices represent great potential for enhancing public health and well-being. When carefully implemented, such programs can prevent a wide range of health problems, promote positive youth development and achieve economic healthcare benefits (Spoth et. al. 2013).

> *A community-driven, community-wide effort to reduce health risking behaviors, coordinated across health, education and human services sectors, should significantly reduce health risking behaviors community wide... though this hypothesis is largely untested (Hawkins et. al. 2009).*

Beyond identifying and making known the Best-In-Class alcohol and other drug prevention programs and the thriving practices that contribute to effective implementation (Actions #1 and #2), collective action is needed to coordinate prevention and health promotion efforts within and across communities. At present, alcohol and other drug prevention programs appear to coordinate efforts to a limited degree. This observation is made based on the large quantity of websites an individual must visit in order to find a complete listing of programs. Discussing, sharing and spreading practices in an open and networked manner will aid in a shift from isolated to collective impact as well as assist in the quality and fidelity needed for broader program implementation and access. And as connections between programs and communities strengthen, the door opens to reach further into the social fabric of connections. It is here, in the way in which youth

and adults are connected to one another within social networks, that we might leverage the hidden powers that influence and activate the prevention practices that research is finding to be effective.

> *Understanding the way we are connected is an essential step in creating a more just society and in implementing public policies affecting everything from public health to the economy. We might be better off vaccinating centrally located individuals rather than weak individuals. We might be better off persuading friends of smokers of the dangers of smoking rather than targeting smokers. We might be better off helping interconnected groups of people to avoid criminal behavior rather than preventing or punishing crimes one at a time. The powerful effect of social networks on individual behaviors and outcomes suggests that people do not have complete control over their own choices. The science of social networks provides a distinct way of seeing the world because it is about individuals and groups, and about how the former actually become the latter (Christakis and Fowler, 2009).*

In Summation....

This study outlines a history that has gotten us to the point we are at today. Over the past century, our cultural understanding of alcohol and other drug use, abuse and prevention has significantly matured. We now understand that these topics must always be considered alongside mental health, school health and overall well-being. There is no question – youth are a product of their environment – their families, communities and schools must work to minimize risk factors and maximize protective factors. In particular, to do this in schools we must increase access to Best-In-Class alcohol and other drug prevention programs. We can close the gap on access by making known these Best-In-Class programs to a broad audience of government officials, school administrators, school health professional, parents and families. Mapping where these programs are successfully being implemented can allow practitioners to better share knowledge and experiences so as to implement such programs with fidelity. Families and parents can demand Best-In-Class prevention programs in their schools and communities and funding organizations can see the footprint of thriving prevention practices so as to be compelled to take action to further close the access gap.

This is a picture of the collective action that can transform prevention practices for our youth - one community, one school, one student at a time.

Section 1

The Pathway to Current Prevention and School-Based Health Promotion Connections in the U.S.

A Brief History of Health Promotion Programs, Alcohol and Drug Policies and Programs and Prevention Science

Health in schools truly got its start with smallpox; mandatory immunizations were put in place to keep the epidemic from spreading through schools. This was later added to by the need to fight malnutrition in order to fight the World Wars. The AIDS epidemic led to an expansion of sexual education and Columbine contributed to a broader awareness of mental health in school settings. The scope of services provided by school-based health centers has grown as the public recognizes what a state may need to provide in order to guarantee a safe place for all students to learn.

Service extensions in schools have often begun with a headline: a scare over immunizations, a report on malnutrition, an expose on drug abuse, or a court ruling on a child's right to education. As the public becomes aware of each issue that threatens youth health and development, they pressure the state to respond with policies or programs to address that issue. Over time awareness of these issues evolves into a deeper understanding of their multiple causes; this has included the recognition that multiple factors must be considered for any singular health issue, and that the social, peer, family and community environments play a critical role in any student's well-being. As they develop understanding in their own contexts, school and community-based health services mature from issue-specific reactions to health problems into proactive practices aimed at health promotions.

Looking through this lens, one can now see a clear connection between issues that were once viewed as separate. Our society now understands youth are influenced by their environment and that education is not enough to ensure health risk prevention. Additionally, it is now apparent that there is a connection between factors that contribute to prevention, well-being and positive youth development. And so, while alcohol and other drug prevention efforts and school-based health promotion have each taken their own distinct paths to get there, the turn of this century saw the convergence of conversations around risk and protective factors, socio-emotional interventions and a set of interrelated outcome targets related to the well-being of a youth and the context of their environment.

This convergence can be seen and tracked in many ways; illustratively, the message of alcohol and other drug prevention programs matured from viewing a person in isolation with programs titled 'Just Say No', 'Just Think Twice' and 'Get Smart on Drugs' to recognizing the many contexts that influence a person's decision to use drugs with more modern campaigns titled 'Above The Influence' and 'Drug-Free Communities'. Similarly, the topic of nutrition in schools evolved from 'feed the rural poor' to nutrition education and healthy meals for all. Sexual education moved from abstinence-only education to more comprehensive health risk prevention programs. The examples continue, and when put next to another in a timeline the trend becomes clear - in each iteration of school-based health promotion, as more evidence becomes available, the school (and by proxy, the state), ends up with a larger role to play in the healthy development of students.

Public health researchers and practitioners recognize the 'individual in environment' model, which takes into account both the environment and how an individual interacts with their environment. The evidence shows that the state, the family and the community all play roles in the overall well-being of a child,

including their abstinence or delayed initiation from using alcohol or other drugs. This can be seen when reviewing the combined timelines associated with: (1) the expansion of school-based health services, (2) the evolution of drug prevention policies and programs, and (3) the maturation of prevention science program evaluations.

The expansion of school-based health services shows the growth of the state's role in a student's well-being; as the scope of school-based health promotion services offered in schools grows so does the recognition of the interrelationship between different components of well-being. The first timeline that follows highlights the following public health content areas: immunizations and school hygiene; nutrition education and physical fitness; and sexual education and mental health services.

A second timeline on the evolution of drug prevention policies and programs shows recognition of the individual-in-environment model; the convergence can be seen as different groups reach out to one another to enhance research and collaboration.

And lastly, a third timeline on the maturation of prevention science program evaluations shows the move of prevention scientists towards the evaluation of evidence-based programs; such evaluations can be seen as both a sign and accelerator of the field's maturity.

Timeline 1: School-Based Health Promotion in the U.S.

Immunizations and School Hygiene

Public awareness of the need for health interventions in schools began in 1905. Public understanding and acceptance of this new relationship between schools and their children occurred around 1926.

Perceptions of public health have shifted from specific services aimed at the individual to community-level interventions aimed at disease prevention. This path started with smallpox, later turned into a mandate for promoting school hygiene and continued until the state assumed a greater role in not only treating disease – including substance use disorders – but also in addressing the conditions that lead to or could help prevent such health risks.

1813 – **U.S. Vaccine Agency established** under President Madison's 'Act to Encourage Vaccination' to support the quality and distribution of the newly discovered smallpox vaccine.

1855 – Massachusetts is the **first state to mandate vaccination** for school-aged children.

1902 – U.S. Congress passes the **Biologics Control Act**, founding the Hygienic Laboratory of the U.S. Public Health Service, which would later become the National Institute of Health.

1905 – **U.S. Supreme Court upholds constitutionality of mandatory smallpox vaccinations** in *Jacobson v. Massachusetts.*

1906 – **American School Hygiene Association** is founded to forward research and inspection of hygiene in public schools.

1915 – Fletcher Dresslar publishes book 'School Hygiene' which **defines school hygiene as a separate branch of science**.

1922 – U.S. Supreme Court hears the case of *Rosalyn Zucht v. the State of Texas*, further upholding the constitutionality of mandatory vaccination programs, after which **all states and schools require immunizations** for attendance.

1926 – The American School Hygiene Association is dissolved and replaced by the American Association of School Physicians, later in 1936 renamed to the **American School Health Association** (ASHA), which looked at hygiene in the context of general health education. ASHA continues its work to this day.

Nutrition Education & Physical Fitness

Public awareness of the ability of schools to address physical health began in the mid-1900s, primarily as a result of the World Wars. Public understanding of quality of food and fitness occurred around 1994.

Over time the school cafeteria and gymnasium have gone from being places of recreation to points of service for public health professionals. Awareness of malnutrition in schools began as early as 1946 with the national school lunch program. Standardized fitness programs began in the 1950's in response to public awareness of malnutrition and students under performing in standardized physical evaluations. First responses were reactive and did not yield a desire to promote prevention through fitness, healthy eating and nutrition education until much later in the century. The White House Conference for Hunger in the late 1960s was still a reaction to malnutrition and proactive education didn't enter the classroom until 1977 when the Nutrition Education and Training program published standards for nutrition in schools. Programming finally arrived in 1994 with the USDA's first School Nutrition Dietary Assessment.

1918 – In response to reports that found one-third of draftees to be considered unfit for military service, the U.S. government enacted the **first physical education programs** in public schools.

1940 – Physical education waned during the 1920's and Great Depression, but in World War II it was found that half of draftees were deemed unfit for military service, which **inspired a resumption of physical education in public schools**.

1946 – **The National School Lunch Program** is signed into law by President Harry Truman, founding the American School Food Service Association and introducing subsidized lunches.

1956 –The **President's Council on Youth Fitness** was created under President Eisenhower and included physical testing in schools due to an international standard that showed that 60% of American school children failed at least one test, compared to 9% of students in Europe. In the 1960's, President Kennedy expanded upon Eisenhower's 'President's Council on Youth Fitness.' Kennedy's 'President's Council on Physical Fitness' piloted youth fitness programs which focused on disease prevention instead of disease treatment.

1969 – President Nixon hosts the **White House Conference on Hunger** and expands lunch programs to provide free food for children in need.

1977 – The **Nutrition Education and Training Program** (NET) is established to provide guidelines on nutrition in schools.

1994 – **Healthy School Meals** is a program launched by the USDA to improve the nutrition content of school-provided lunches. The program, launched in response to the new 'School Nutrition Dietary Assessment', also published by the USDA, showed that school lunches were too high in fat.

2010 - Michelle Obama launches **Let's Move**, a comprehensive initiative, dedicated to solving the problem of obesity within a generation, so that children born today will grow up healthier and able to pursue their dreams.

Sexual Education

Public awareness of the need for sexual education in schools enters mainstream with the AIDS epidemic in 1983. Public understanding of evidence-based prevention programs expanded around 2009.

Public fear over the spread of HIV/AIDS increased interest in sexual education programs. The Reagan Administration began funding sexual education programs, which initially took the stance of 'Abstinence-Only', and later the stance of, 'Abstinence Before Condoms'. Funding for such programs continued to grow until 2009 when the Obama Administration took office, after which funding levels were cut by two-thirds and $180 million was made available to fund other types of sexual education programs. Over this 28-year course, $1.5 billion dollars were put towards abstinence-only education programs. Evidence-based prevention programs, some of which promoted the use of contraceptives, were not seen in some schools until later in the 1980's, and in some schools still not to this day.

1983 – **Sexual education programs were created** in response to the AIDS epidemic to teach courses dedicated to 'family life' or 'human growth and development'. These courses were the first standard-

ized texts to discuss contraception; they focused on abstinence, but also covered family finances, self-esteem, personal responsibility and parenting skills.

2009 – President Obama founds the **'President's Teen Pregnancy Prevention Initiative'** (TPPI), funded by a $110 million appropriation which, in part, supports evidence-based pregnancy prevention programs.

2010 – **The Office of Adolescent Health** was funded to coordinate activities that relate to youth health promotion and education. The office focuses on training health providers who work with adolescents, in particular around areas of pregnancy prevention and sexual disease. In the same year the Patient Protection and Affordable Care Act was passed into law, and with it, the Personal Responsibility Education Program (PREP) which is aimed at reducing unwanted teen pregnancy and the spread of venereal disease.

Mental Health Services

Public awareness of mental health grows overnight with the Columbine school shootings in 1999. Public understanding of co-dependencies and interrelationships between mental health and other factors is still emerging.

It took decades to define the rights of a child with physical disabilities to an education. Defining this right to include mental disabilities took longer still. Connecting substance use disorders to mental health and positive youth development was the culmination of over thirty years of drug prevention research. By the turn of the century the field of prevention science had more or less adopted positive youth development as a guiding paradigm over more traditional deficit-based developmental models, which were by then considered to be too narrow in focus (1 to 2 isolated and individual predictive factors), and too focused on risks and problems as opposed to skills and protective factors. Following the school shooting in Littleton, Colorado at Columbine High School mental health was made a clear priority for school medical staff, creating a convergence between positive youth development, the recognition of substance use disorders as a mental illness and a focus on what could be done to promote mental health in the school environment.

1975 – The **Education of All Handicapped Children Act** was passed by Congress. This set the scene for more state and federal funding of school-based counseling and mental health services.

1984 – The U.S. Supreme Court upholds *Smith v. Robinson*, concluding that **all children have an equal right to education regardless of disability**.

1990 – The **Individuals with Disabilities Act** is passed to expand funding for special and inclusive education programs in public schools.

1999 – **Surgeon General's Report on Mental Health** is published in response to the school shootings in Columbine, Colorado and a new emphasis is put on providing mental health services and violence assessments in public schools. The U.S. Department of Health and Human Services releases that one in five children and adolescents have a mental health disorder, and that of the seven million children in the U.S. with a mental health problem, only 6.5% were in any contact with a mental health professional.

2004 – The **Individuals with Disabilities Education Act** (IDEA) replaced the 1990 Individuals with Disabilities Act and further defined the educational rights for students with disabilities, and provided a federal mandate to the NGO Child Find (founded 1980), requiring that states have a system for locating and referring special education services for all children with disabilities under the age of 21.

2009 – **IDEA is amended** to further define student rights to education despite any mental or physical impairment that inhibits life and learning.

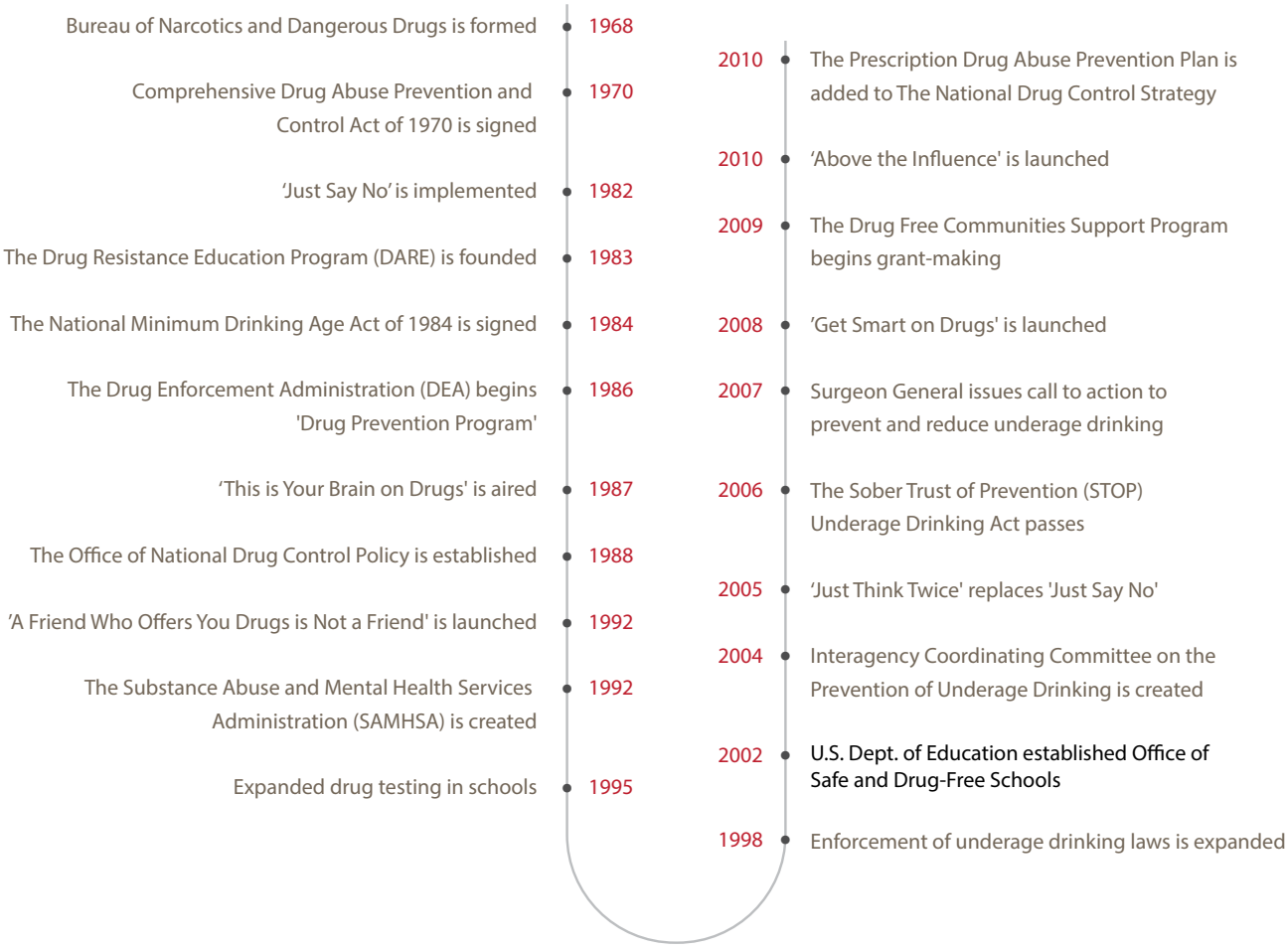
2010 – School-based health centers receive **expanded funding for alcohol and drug counseling**.

2010 – Gallup Press publishes version 2.0 of their 'strengths-finder', titled *Wellbeing: The Five Essential Elements* and begins tracking metrics associated with well-being in their polling. From this framework the U.S. Department of Health and Human Services launches a ten-year campaign to improve holistic well-being in the U.S. titled **'Healthy People 2020'**.

2012 - The shooting at Sandy Hook Elementary School in Newton, Connecticut. The incident is the deadliest mass shooting to take place at a U.S. grade school and history and greatly increased the attention to youth and adolescent mental health services in the U.S.

2014 - Alaska, Nebraska, Louisiana, Tennessee and Kentucky require school personnel to be trained in suicide prevention annually.

Timeline 2: The Evolution of Alcohol and Drug Prevention Policies and Programs in the U.S.



Alcohol and Drug Prevention Policies

Public awareness of the threat posed by drugs takes shape with the War on Drugs starting in 1983. Public understanding of prevention policies that take into account the child in their environment began to progress around the end turn of the century, accelerating again around 2010.

The topic of adolescent alcohol and other drug use first entered national discourse as a debate over individual rights. Youth were being drafted to serve in the Vietnam War earlier than they were able to legally drink or vote. The federal government did not have the mandate to get involved in issues of public health, as these were either personal or family matters, or within the purview of state government.

When the public realized that tobacco companies had been hiding research and lying about the addictive properties of their products, the federal government started paying attention. When large populations of soldiers in Vietnam were being diagnosed with drug addictions, particularly heroin, Nixon declared a 'War on Drugs' and signed into law the Comprehensive Drug Abuse Prevention and Control Act of 1970. Still, at this time, there was neither the research nor the political infrastructure to do more than begin discussing the problem.

The next phase of regulatory milestones started with the Federal Minimum Drinking Age Act of 1984, from where the state expanded into schools with drug prevention programs, like DARE, and public communication campaigns launched. Thus began a higher level of state response, and most prevention efforts were put into school-based education programs. With the creation of the Substance Abuse and Mental Health Services Administration (SAMHSA) in 1992, research also began to strengthen the link between substance use and co-occurring mental health disorders, an understanding that focused public efforts on treatment more so than prevention. A decade later saw a rash of suits against the tobacco industry and a rapid uptake of public health laws restricting smoking. These regulations were paired with the new understanding that education was not enough to promote prevention, and that the state has a role to play in helping people to make healthier choices. This was especially true in schools, where court rulings and interpretations allowed for relaxed standards for individual rights when drugs were involved.

1968 - **Bureau of Narcotics and Dangerous Drugs is formed** merging the Bureau of Narcotics with the Bureau of Drug Abuse Control, and is placed under the narcotics division of the Department of Justice.

1970 – **Comprehensive Drug Abuse Prevention and Control Act of 1970**, is signed by President Nixon, including the Controlled Substances Act, but also repealing mandatory minimum sentences for possession of marijuana, establishing federal programs to reduce demand and treat drug addictions, and establishing categories for drugs based on their potential medicinal use and likelihood for addiction.

1984 – **The National Minimum Drinking Age Act of 1984** ties highway funding to minimum drinking age (MDA), encouraging states to universally raise MDA to 21.

1986 – **The Drug Enforcement Administration (DEA) begins 'Drug Prevention Program'** and adopts mandate (1 of 7) to 'support initiatives to reduce the demand for drugs and give assistance to commu-

nity coalitions and drug prevention initiatives'. This results in the Drug Prevention Program (DRP).

1988 – The **Office of National Drug Control Policy (ONDCP)** is established – the leader of which later came to be known as the Drug Czar. This position manages what would become the National Youth Anti-Drug Media Campaign, which, alongside 'Partnership for a Drug Free America' go on to produce highly visual and memorable anti-drug ad campaigns.

1992 – **The Substance Abuse and Mental Health Services Administration** (SAMHSA) is created by Congress, 'to focus attention, programs and funding on improving the lives of people with or at risk for mental and substance abuse disorders'.

1995 – **Expanded drug testing in schools** begins as reasonable suspicion replaces probable cause at schools, allowing for expanded and indiscriminate search/seizure in relation to the possession, use or sale of drugs for any student attending school. The *Vernonia and Earls v. Acton* case established that schools are protected from lawsuits regarding drug testing, and that it is permissible to perform any drug-test, as opposed to just urine based tests, on any student grade 1 – grade 12. It also allowed mandatory drug testing for specific student groups, such as student-athletes, which opened the way for state-level mandatory testing for student athletes.

1998 – **Enforcing Underage Drinking Laws** through the Department of Justice begins expanding enforcement at the state and community-levels.

2002 - **The U.S. Department of Education establishes The Office of Safe and Drug-Free Schools** requiring the office to administer, coordinate and recommend policy for improving the quality of programs and activities designed to: provide financial assistance for drug and violence prevention activities and activities that promote the health and well-being of students in elementary and secondary schools and institutions of higher education. This is not called the Office of Safe and Healthy Schools

2004 – **Interagency Coordinating Committee on the Prevention of Underage Drinking** is created by the Department of Health and Human Services and tasked with publishing an annual report that summarizes all federal activities related to underage drinking.

2006 – **The Sober Truth of Prevention (STOP) Underage Drinking Act passes** into law to improve coordination between agencies and programs involved in prevention, intervention, treatment, enforcement and research.

2007 – **Call to Action to Prevent and Reduce Underage Drinking** is issued by the Surgeon General, framing underage drinking as a developmental issue.

2009 – **The Drug-Free Communities Support Program begins grant-making** to fund community-based anti-drug efforts.

2010 – The **Prescription Drug Abuse Prevention Plan** is added to The National Drug Control Strategy.

Alcohol and Drug Prevention Campaigns and Programs

Public awareness of prevention programming began in 1982, the same time that well-known programs like project DARE got their start. Public understanding of best practices is still emerging.

From the early 1980's to the present day the effort to keep kids from using drugs and alcohol has followed the same overall trend. During the first phase of prevention efforts, the 'Just Say No' campaign emphasized an individuals' ability to resist peer pressure. In the late 1980's a second phase of prevention efforts targeted peers, parents and the notion that drugs were casual or cool. Additionally, school-based prevention programs, like DARE, started scaling nationwide on the belief that the local community, as well as the family, had a role to play in prevention. By the turn of the century a new phase of prevention efforts emerged. Prevention programs such as 'Above the Influence', 'Just Think Twice' and 'Get Smart On Drugs' augmented or replaced earlier prevention campaigns. Each of these efforts initiated in the early 2000's, and were based on the same data linking prevention to positive youth development, and represented a more mature understanding of the role that prevention programs play in achieving positive youth outcomes. Namely, these programs incorporated lessons from earlier efforts regarding cultural sensitivity, and allowed for the localization of programs.

Today prevention efforts recognize that education itself is not enough to protect against alcohol and drug abuse; effective prevention programs require the involvement of family, support from the immediate community and the federal enforcement of regulations which make illicit substances more difficult for youth to access.

1982 – **'Just Say No'** is implemented in response to the peak use of crack-cocaine. The National Institute of Health (NIH) sponsored a 'resiliency-based' prevention program that funded an ad competition with the purpose of giving kids simple instructions on how to 'stay the course'. This competition was won by student Jordan Zimmerman, whose 'Just Say No' message was brought public by Nancy Reagan, and which ran through the mid-1990's.

1983 – **The Drug Abuse Resistance Education Program (DARE)** was founded through a partnership between Los Angeles Police Chief Daryl Gates and the Los Angeles Unified School District, from where it grew nationwide.

1987 – In a turn away from 'resiliency' motivated messaging, the Partnership for a Drug Free America intentionally adopted scare tactics, the most famous of which was the **'This is Your Brain on Drugs'** ad which was aired in 1987 and re-launched in 1997 with a young woman as the spokesperson.

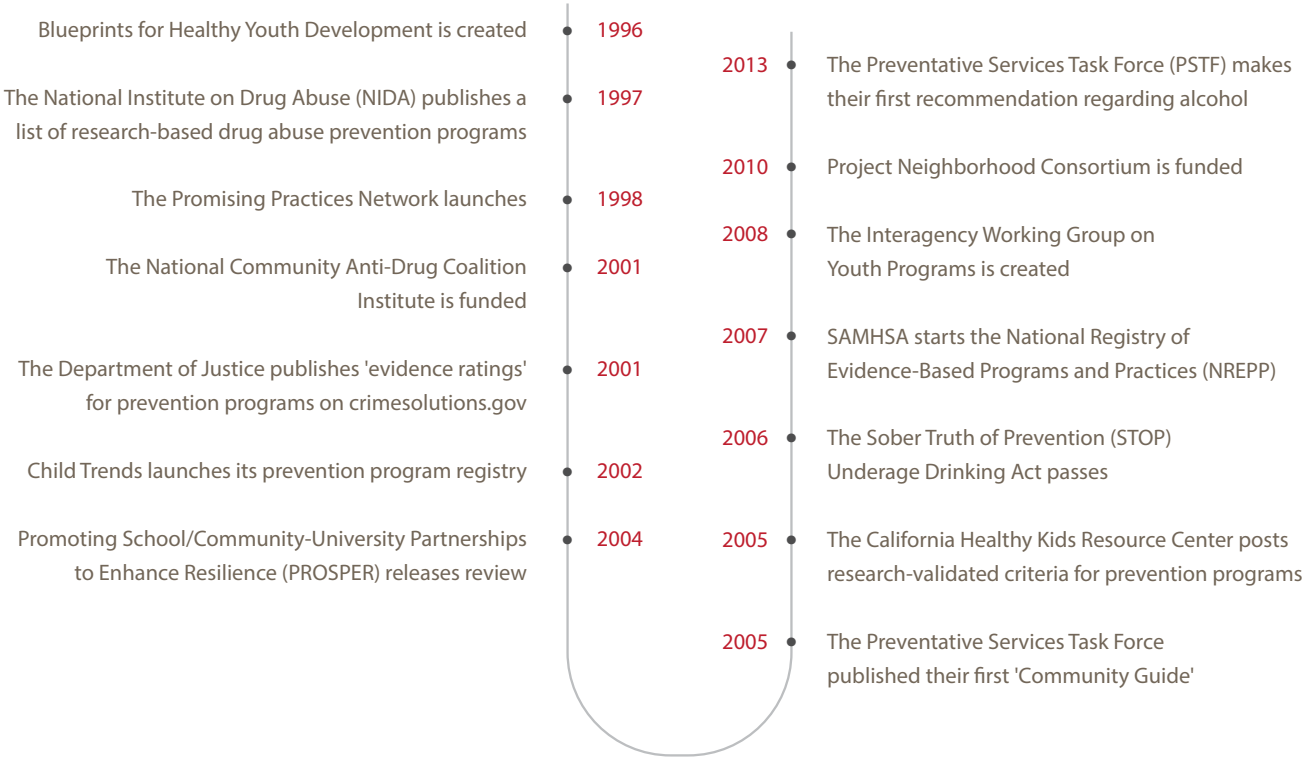
1992 – '**A Friend Who Offers You Drugs is Not a Friend'** is launched recognizing the power of peer pressure and the isolation youth feel when choosing to abstain from drugs. The Partnership for a Drug Free America replaced its, 'I learned it from watching you' campaign, which addressed parents, with a campaign aimed at empathizing with children.

2005 – '**Just Think Twice'** replaces 'Just Say No', and launches a website aimed at 'Street Smarts'.

2008 – **'Get Smart on Drugs'** is launched emphasizing a change of tactics from fear to education. The 'Get Smart on Drugs' campaign intended to educate youth about the hazards of drug use.

2010 – **'Above the Influence'** is launched as the rebranded DEA Drug Prevention Program. This campaign is geared towards education and empowerment.

Timeline 3: The Maturation of Prevention Science Program Evaluations



From Public Health to Prevention Science: A Common Language for Evaluation

Public awareness of the need to assess quality and develop evidence-based indicators of successful prevention programs began with the Society for Prevention Science, founded in 1991. Before setting to the task of evaluating, researchers needed to be aware of where work is being done and establish a common language for talking about quality outcomes. Catalogues of prevention programs began being published around the turn of this century demonstrating a deeper understanding of effective, evidence-based prevention programs.

A look at these efforts over time shows the field of prevention science maturing to a point where it is now able to effectively evaluate evidence-based programs. This trend is accelerating; as more useful information becomes available, both evaluations and the programs being evaluated mature in terms of effectiveness. In the early 2000's the U.S. Department of Education released and spread the 'Principles of Effectiveness' that required schools accepting Safe and Drug Free Schools funds to design and implement prevention activities based on researcher evaluation that provided evidence that strategies used prevent

or reduce drug use. These principles were included in the No Child Left Behind Act which left schools at risk of losing their Safe and Drug Free Schools funding if they failed to implement evidence-based prevention curricula. However, No Child Left Behind allowed for some schools to apply to transfer up to 50% of funds to support areas such as reading and math achievement, English language training or for the recruitment of qualified teachers. Additionally, some small school districts could transfer all of their Safe and Drug Free Schools funds to meet locally determined education needs (Ringwalt et. al. 2008). Thus, even with maturation there still remain barriers to closing the access gap to effective evidence-based alcohol and other drug prevention programs.

1996 – The University of Colorado partners with Blueprints for Healthy Youth Development and various state and federal agencies to create **Blueprints for Healthy Youth Development** which applies a scientific standard to the evaluation of youth prevention and intervention programs.

1997 – The **National Institute on Drug Abuse (NIDA) publishes a list of research-based drug-abuse programs** titled the 'Research-Based Guide for Parents, Educators and Community Leaders'.

1998 – **The Promising Practices Network launches** a website to provide unbiased evaluations of evidence-based prevention and intervention programs. They partner with the RAND Corporation in 2000 to expand the site, and run out of funding in 2014.

2001 – The Drug-Free Communities Support Act is approved for another five years, and with it, funds the **creation of the National Community Anti-Drug Coalition Institute** 'to develop and build the capacity of community coalitions to successfully reduce substance abuse'.

2001 – **The Coalition for Evidence-Based Policy begins** connecting evidence-based research to social policy lawmakers and advocates.

2001 – The Office of Justice Programs in **the Department of Justice publishes 'evidence ratings' on Crimesolutions.gov** to help researchers and practitioners access data on evidence-based programs.

2002 – **Child Trends** launches the DataBank, a registry that in twelve years since its inception has grown to list over 650 prevention-based programs.

2004 – The first published review and validation of **Promoting School/Community-University Partnerships to Enhance Resilience (PROSPER)**, a program that promotes research and connections between universities and school-based prevention professionals, is released.

2005 – **The California Healthy Kids Resource Center posts research-validated criteria for programs and materials** for California educators; posting them online made these resources available to educators worldwide.

2005 – **The Preventive Services Task Force publishes their first 'Community Guide'**, a resource to help people choose a program for their community. Apart from tobacco, drug and alcohol prevention programs were not included.

2006 – **The Sober Truth of Prevention (STOP) Underage Drinking Act passes** into law to improve coordination between agencies and programs involved in prevention, intervention, treatment, enforcement and research.

2007 – **SAMHSA starts the National Registry of Evidence-Based Programs and Practices (NREPP).** Seven years since beginning, a total of 336 interventions are listed in this registry; a majority of these were added right after the registry opened (2007-2008) and recently (2013-2014), though some of the more recent registrations are explained by the fact that organizations must renew their registration every five years.

2008 – **The Interagency Working Group on Youth Programs is created** to coordinate the research and work of eighteen departments dedicated to service youth and hosts a directory of youth-targeted programs available at FindYouthInfo.gov.

2010 – President Obama funds the **Project Neighborhood Consortium** that funds, researches and lists holistic interventions aimed at improving educational outcomes in underprivileged neighborhoods.

2013 –**The Preventive Services Task Force (PSTF) makes their first recommendation regarding alcohol misuse**. This is thirty years after the PSTF first began making their annual recommendations to congress, where they identify gaps in research and priorities for the broad field of prevention research.

Section 2

The Initial Action for Closing the Gap on Access to Best-In-Class Evidence-Based Alcohol and Other Drug Prevention Programs Available for K-12 Students in the U.S.

Methodology for Identifying and Making Known the Best-In-Class Evidence-Based Alcohol and Other Drug Prevention Programs

Although many registries and evaluators list the evaluations of other entities on their websites none seem to comment on or make a statement regarding the variations in findings regarding effectiveness. The methodology offered here seeks to cross-reference pre-existing registries and evaluators in order to make a more informed judgment around effective school-based prevention programs for students in grades K-12. In an effort to identify the Best-In-Class evidence-based prevention programs for individuals in grades K-12, the following methodology was used. As stated in the introduction, there are additional programs that exist that work toward affecting the same risk and protective factors; however, their limited implementation means they do not appear on evidence-based registries and therefore remain outside the scope of this study.

Step 1. Identify and catalogue potential evidence-based prevention programs from national registries

First, all potential evidence-based prevention programs needed to be identified and catalogued. In order to do this the resources or national registries listed in Table A were reviewed.

Each of these resources present themselves as housing a database or list of prevention programs for students in grades K-12. Note that Child Trends does appear to do some of their own evaluation of programs; however, due to the absence of a nomenclature around the evaluation results they have been included in this study as a registry rather than an evaluator. In review of the Child Trends' site, programs shown to have a short-term impact on prevention were not included. Additionally, the U.S. Department of Educations 'Exemplary and Promising Safe, Disciplined and Drug Free Schools Program 2001' list has not been included as the information on that site has not been updated since 2009. **Review of all sources resulted in a list of 213 potential programs; when the list was evaluated and duplicates removed a list of 141 unique prevention programs resulted.**

Table A: List of national registries and search criteria applied

Registry Name	Criteria Applied/Review Methodology	Resulting # of Programs
SAMHSA's National Registry of Evidence-Based Programs and Practices (NREPP)	Search Criteria: • Ages: 6-17 • Areas of Interest: Substance Abuse Prevention • Settings: Home, School, Other community settings • Outcome: Alcohol, drugs, education, environmental change, family/relationships, mental health, quality of life, social functioning • Races: (None) • Geographic: (None) • Genders: (None) • Study Designs: (None) • NIH Funding / CER Studies: (None) • Implementation: (None) • Language Translation: (None)	88

The Community Guide: Community Prevention Services Task Force	Topics to Review: • Adolescent Health • Alcohol – Excessive Consumption • Health Equity	0
Child Trends	Manual Review of List: Include all programs that indicate substance use or substance prevention result. Note: Midwestern Prevention Project is now Project STAR and listed twice on this registry but reflected once in our analysis. Treated as a registry rather than an evaluator due to absence of nomenclature around evaluation.	42
California Healthy Kids Resource Center, California Department of Education	Search Criteria: • Research Validated Programs • Alcohol and Other Drugs	16
Communities That Care (CTC)	Criteria could not be determined at this point in time and therefore no programs were included	0
Promoting School/Community-University Partnerships To Enhance Resilience (PROSPER)	Search Criteria: All programs listed on menu of programs	5
Promise Neighborhoods Consortium	Search Criteria: Programs present on list, exclude programs identified as targeting solely infancy and toddlership	11
CADCA	Review Strategizer 30 - Keeping Kids Drug Free: Effective Prevention Programs. The following programs in this resource were excluded for the following reasons: Family Advocacy Network (FAN Club) as target audience is parents and Residential Student Assistance Program (RSAP) due to institutionalized setting.	5
NIDA Examples of Research-Based Drug Abuse Prevention Programs (Universal, Selective, Indicated and Tiered)	Manual Review of Lists	19
Annual Report to Congress on the Prevention and Reduction of Underage Drinking, U.S. Department of Health and Human Services	Manual Review of Chapter 3	27

Review of lists generated by evaluators (Table B) added 43 additional programs to the list of potential evidence-based alcohol and other drug prevention programs bringing the total list from 141 to 184 potential programs (Table C).

Step 2. Review program evaluations and cross-reference evaluated evidence-based prevention programs

Next a series of program evaluators were discovered and considered. Evaluators vary greatly in their naming devices for the most effective and likely effective programs as well as their criteria for evaluation. In total, the findings of six evaluators were cross-referenced in this study; however, in the course of the research it was determined that two evaluators utilized the same database. As a result, those two evaluators (Office of Justice Programs' – Crimesolutions.gov and Office of Juvenile Justice and Delinquency Prevention) were treated as a single evaluator.

Table B: List of evaluators and search criteria applied

Evaluator	Criteria Applied
Blueprints for Healthy Youth Development	Search: All Programs Remove: College Programs Include: Model and Promising
Promising Practices Network	Search: Substance Use and Prevention Include: Proven and Promising
Coalition for Evidence-Based Policy	Search: N/A Include: Top Tier and Near Top Tier
Office of Justice Programs CrimeSolutions.gov	Search:Manual Review of All Effective and Promising Programs in Drugs and Substance Abuse Topic Area, Manually Exclude Programs Outside of School, Family and Community Setting, Manually Exclude Pre-K and Post Grade 12 audiences Include: Effective and Promising
Finding Youth Info	Search:View All Include: Level 1 and Level 2
Office of Juvenile Justice and Delinquency Prevention	Search: Select Age 5-17, then manually review list for prevention, alcohol and other drugs Include: Effective and Promising

Blueprints for Healthy Youth Development

http://www.blueprintsprograms.com/programCriteria.php

Nomenclature

Blueprints for Healthy Youth Development evaluates prevention programs through a nomination process and makes public its evaluation of programs that result in 'Model' and 'Promising' ratings.

Evaluation Criteria

In general, Blueprints for Healthy Youth Development evaluates programs based on intervention specificity, evaluation quality, intervention impact and dissemination readiness.

Model program rating requirements are:

- A minimum of (a) two quality randomized control trials or (b) one high quality randomized control trial plus one high quality quasi-experimental evaluation.

- Positive intervention impact is sustained for a minimum of 12 months after the program intervention.

Promising program rating requirements are:

- The program description clearly identifies the outcome the program is designed to change, the specific risk and/or protective factors targeted to produce this change in outcome, the population for which it is intended and how the components of the intervention work to produce this change.
- The evaluation trials produce valid and reliable findings. This requires a minimum of (a) one high quality randomized control trial or (b) two high quality quasi-experimental evaluations.
- The preponderance of evidence from the high quality evaluations indicate significant change in intended outcomes that can be attributed to the program and there is no evidence of harmful effects.
- The program is currently available for dissemination and has the necessary organizational capability, manuals, training, technical assistance and other support required for implementation with fidelity in communities and public service systems.

Promising Practices Network

http://www.promisingpractices.net/criteria.asp

Nomenclature

The Promising Practices Network (PPN) evaluates prevention programs and makes public its evaluation of 'Proven', 'Promising' and 'Other Reviewed' programs. Programs are generally assigned either a 'Proven' or a 'Promising' rating, depending on whether they have met the evidence criteria. In some cases a program may receive a 'Proven' rating for one indicator and a 'Promising' rating for a different indicator. In this case the evidence level assigned will be 'Proven/Promising' and the program summary will specify how the evidence levels were assigned by indicator.

Some programs on the PPN site are identified as 'Other Reviewed Programs'. These are programs that have not undergone a full review by PPN, but evidence of their effectiveness has been reviewed by one or more credible organizations that apply similar evidence criteria. 'Other Reviewed Programs' may be fully reviewed by PPN in the future and identified as 'Proven' or 'Promising', but are identified as 'Other Reviewed Programs' in the interim. The Promising Practices Network ran out of funding in 2014; as such the site will not be updated in the future.

Evaluation Criteria

In general, PPN evaluates programs based on type of outcomes affected, substantial effect size, statistical significance, comparison groups, sample size and availability of program evaluation documentation. PPN does not require that programs be currently implemented in some location and provide technical assistance or support, be replicated numerous times, have articulated as program goals the outcomes they impact or evaluation to have appeared in a peer-reviewed journal.

Proven program rating requirements are:

- Program must directly impact one of the indicators used on the site
- At least one outcome is changed by 20%, 0.25 standard deviation or more
- At least one outcome with a substantial effect size is statistically significant at 5% level
- Study design uses a convincing comparison group to identify program impacts, including randomized-control trial (experimental design) or some quasi-experimental designs
- Sample size of evaluation exceeds 30 in both treatment and comparison groups
- Program evaluation documentation is publicly available

Promising program rating requirements:

- Program may impact an intermediary outcome for which there is evidence that it is associated with one of the PPN indicators
- Change in outcome is more than 1%
- Outcome change is significant at 10% level (marginally significant)
- Study has a comparison group, but it may exhibit some weaknesses, e.g., the group lacks comparability on pre-existing variables or the analysis does not employ appropriate statistical controls
- Size of evaluation exceeds 10 in both the treatment and comparison groups
- Program evaluation documentation is publicly available

Not Listed on Site (*If program meets any of these conditions, it will not be listed on the site*)

- Program impacts an outcome that is not related to children or their families, or for which there is little or no evidence that is related to a PPN indicator (such as the number of applications for teaching positions)
- No outcome is changed by more than 1%
- No outcome change is significant at less than the 10% level
- Study does not use convincing comparison group. For example, the use of before and after comparisons for the treatment group only
- Size of evaluation includes less than 10 in the treatment or comparison group
- Distribution of program evaluation documentation is restricted, for example only to the sponsor of the evaluation

Coalition for Evidence-Based Policy

http://toptierevidence.org/wp-content/uploads/2010/02/Top-Tier-Checklist-for-Reviewing-RCTs-Updated-Jan10.pdf

Nomenclature

The Coalition for Evidence-Based Policy evaluates prevention programs through a systematic review that requires the initiative's expert panel to identify interventions meeting 'Top Tier' or 'Near Top Tier' criteria.

'Top Tier' standard is associated with interventions shown in well-designed and implemented randomized controlled trials, preferably conducted in typical community settings, to produce sustained benefits to participants and/or society. 'Near Top Tier' standard is associated with interventions shown to meet almost all elements of the 'Top Tier' standard, and which only need one additional step to qualify. This category includes, for example, interventions that meet all elements of the standard in a single site, and just need a replication trial to confirm the initial findings and establish that they generalize to other sites.

Evaluation Criteria

Top Tier Standard program rating requirements are:

- Random assignment was conducted at the appropriate level – either groups (e.g. classrooms, housing projects) or individuals (e.g. students, housing tenants) or both
- The study has adequate sample size – one large enough to detect meaningful effects of the intervention
- The study shows that the intervention and control groups were highly similar in key characteristics prior to the intervention (e.g. demographics, behavior)
- If the study asked sample members to consent to study participation, they provided such consent before learning whether they were assigned to the intervention versus control group
- Few or no control group members participated in the intervention, or otherwise benefited from it (i.e. there was minimal 'cross-over' or 'contamination' of controls)
- The study collected outcome data in the same way, and at the same time, from intervention and control group members
- The study obtained outcome data for a high proportion of the same members originally randomized (i.e. the study had low sample 'attrition')
- The study, in estimating the effects on the intervention, kept sample members in the original group to which they were randomly assigned
- The study used 'valid' outcome measures – i.e. outcome measures that are highly correlated with the true outcomes that the intervention seeks to affect
- The study measured outcomes that are of policy or practical importance – not just intermediate outcomes that may or may not predict important outcomes
- Where appropriate, the members of the study team who collected outcome data were 'blinded' (i.e. kept unaware of who was in the intervention and control groups)
- Preferably, the study measured whether the intervention's effects last long enough to constitute meaningful improvement in participants' lives (e.g. a year, hopefully longer)
- If the study claims that the intervention has an effect on outcomes, it reports (i) the size of the effect, and whether the size is of policy or practical importance and (ii) tests showing the effect is statistically significant (i.e. unlikely to be due to chance)
- The study reports the intervention's effects on all the outcomes that the study measured, not just those for which there is a positive effect
- The intervention has been demonstrated effective, through well-conducted randomized control trials in more than one site of implementation

- The trial(s) evaluated the intervention in the real-world community settings and conditions where it would normally be implemented
- There is no strong countervailing evidence, such as well-conducted randomized controlled trials of the intervention showing an absence of effects

Near Top Tier Standard program rating requirements are:

- Interventions shown to meet almost all elements of the 'Top Tier' standard, and which only need one additional step to qualify. This category includes, for example, interventions that meet all elements of the standard in a single site, and just need a replication trial to confirm the initial findings and establish that they generalize to other sites

Office of Justice Programs

https://www.crimesolutions.gov/about_starttofinish.aspx

Nomenclature

The Office of Justice Programs' CrimeSolutions.gov uses rigorous research to inform practitioners and policy makers about what works in criminal justice, juvenile justice and crime victim services. Study reviewers assess the evidence for programs and practices and assign ratings of either Effective, Promising or No Effects. One evidence rating is assigned for each program that is reviewed. This evaluator uses icons to indicate whether, in its evaluation, a single or meta-analysis was considered or whether more than one study or meta-analysis was considered. Crimesolutions.gov is one of only two evaluators that makes public the results of all (including unfavorable) evaluations.

Evaluation Criteria

To provide an evidence rating, Crimesolutions.gov aggregates study level information. Study level information is scored in four dimensions – conceptual framework, design quality, outcome evidence and program fidelity.

The minimum requirements for study evaluation by Crimesolutions.gov include:

- The program must be evaluated by at least one randomized field experiment or quasi-experimental research design (with comparison condition)
- The outcomes assessed must be related to crime, delinquency or victimization prevention, intervention or response
- The evaluation must be published in a peer-reviewed publication or documented in a comprehensive evaluation report
- The date of publication must be 1980 or after

A Lead Researcher, with subject matter and research methodology expertise, selects up to three studies representing the most rigorous study designs and methodologies from all available evaluations of the program (some programs may only have one or two studies available) and uses a scoring instrument to evaluate the following:

- Conceptual Framework: The degree to which the program is grounded in the research literature
- Design Quality: The quality of research design
- Outcome Evidence: The quality of results
- Program Fidelity: The degree to which the program is delivered as designed or intended

Scores are then divided into five classes and certain 'Class' requirements are applied to overall ratings.

- Class 1 – Strong Evidence of Positive Effect
- Class 2 – Some Evidence of Positive Effect
- Class 3 – Strong Evidence of Negative Effect
- Class 4 – Strong Evidence of Null Effect
- Class 5 – Insufficient Information

Effective programs have strong evidence to indicate they achieve their intended outcomes when implemented with fidelity.

- Class 1: Must have at least 1 study in Class 1
- Class 2: May have up to 2 studies in Class 2
- Class 3: Must have 0 studies in Class 3
- Class 4: May have up to 1 study in Class 4
- Class 5: Studies do not determine evidence rating

Promising programs have some evidence to indicate they achieve their intended outcomes.

- Class 1: Must have 0 studies in Class 1
- Class 2: Must have at least 1 study in Class 2
- Class 3: Must have 0 studies in Class 3
- Class 4: May have up to 1 study in Class 4
- Class 5: Studies do not determine evidence rating

No Effects programs have strong evidence indicating that they had no effects or had harmful outcomes when implemented with fidelity.

- Class 1: Must have 0 studies in Class 1
- Class 2: Must have 0 studies in Class 2
- Class 3: Must have at least 1 study in either Class 3 of Class 4
- Class 4: Must have at least 1 study in either Class 3 of Class 4
- Class 5: Studies do not determine evidence rating

FindYouthInfo

http://www.findyouthinfo.gov

Nomenclature

The FindYouthInfo program directory includes programs selected by a partnership of federal agencies. These were reviewed by Development Services Group, Inc. and the Institute for Intergovernmental Research through a cooperative agreement with the U.S. Department of Justice. Programs are evaluated and classified at Level 1, Level 2 or Level 3.

Evaluation Criteria

Program reviews examine four dimensions of effectiveness: conceptual framework, program fidelity, evaluation design and empirical evidence. The score for each dimension of effectiveness and the overall effectiveness score are used to classify programs into one of three levels.

- **Level 1:** In general, when implemented with a high degree of fidelity (effectiveness), these programs demonstrate robust empirical findings, using a reputable conceptual framework and an evaluation design of the highest quality.
- **Level 2:** In general, when implemented with sufficient fidelity, these programs demonstrate adequate empirical findings, using a sound conceptual framework and an evaluation design of high quality (quasi-experimental).
- **Level 3:** In general, when implemented with minimal fidelity, these programs demonstrate promising (yet perhaps inconsistent) empirical findings, using a reasonable conceptual framework and a limited evaluation design (single group pre-test) that requires causal confirmation using more appropriate experimental techniques.

Office of Juvenile Justice and Delinquency Prevention

http://www.ojjdp.gov

Nomenclature

The Office of Juvenile Justice and Delinquency Prevention's (OJJDP's) Model Programs Guide (MPG) contains information about evidence-based juvenile justice and youth prevention, intervention and reentry programs. The Office of Juvenile Justice and Delinquency Programs, Model Program Guide (MPG) evaluates programs and classifies them as effective, promising, or no effects.

Evaluation Criteria

MPG uses expert study reviewers and CrimeSolutions.gov's program review process, scoring instrument and evidence ratings. The two sites also share a common database of juvenile-related programs therefore MPG evaluation and Crimesolutions.gov evaluation were combined as a single evaluator. The Office of

Juvenile Justice and Delinquency Prevention, as a result of sharing a database with Crimesolutions.gov also makes public evaluations of all programs including those evaluations that demonstrate no effects.

Please note: Although sometimes listed as an evaluator, SAMHSA's dissemination rating has not be included as an evaluator in this study as the rating is given for the readiness for dissemination and not to the program overall.

Step 3: Creation of the Best-In-Class evidence-based prevention programs rubric

In order to achieve the Best-In-Class rating in this study a program had to of received the highest level of evaluation by at least one evaluator; receive a second highest level evaluation by at least one more evaluator; and, have received no negative or no effect evaluations where negative and no effect evaluations were made public. Note that many evaluators do not make public the complete list of programs they have evaluated but instead only make public the lists of programs that have received relatively good evaluations. Therefore, it is not possible to determine how many times each of the 184 potential programs have been evaluated.

Applying these criteria resulted in a list of 17 Best-In-Class alcohol and other drug prevention programs. The 17 include:

- *Adolescent Transitions Program (ATP) now called Positive Family Support-Family Check-Up*
- *Big Brothers Big Sisters (BBBS) (Community-Based Mentoring Program)*
- *DARE to Be You*
- *Functional Family Therapy (FFT)*
- *Guiding Good Choices*
- *LifeSkills Training (LST) (Sometimes called Botvin's LifeSkills Training)*
- *Multidimensional Family Therapy*
- *Multidimensional Treatment Foster Care*
- *Multisystemic Therapy (MST)*
- *Nurse-Family Partnership*
- *Positive Action*
- *Project Northland*
- *Project STAR (formerly Midwest Prevention Project)*
- *Project Toward No Drug Abuse*
- *Promoting Alternative Thinking Strategies (PATHS)*
- *Strengthening Families Program: For Parents and Youth 10-14*
- *Strong African American Families (SAAF)*

A complete analysis and codification of the 17 Best-In-Class prevention programs identified in this study can be found at: http://transformingyouthrecovery.org/resources/program-rubric.

Among these 17 programs, 2 programs require further evaluation to confirm inclusion in this list of Best-In-Class programs. DARE to be You focuses on children ages 2 to 5. If, in contacting the program implementers it is discovered that this program is utilized within kindergarten classrooms or kindergarten aged children, then this program can be included on this list as this study's focus is on programs for students in grades K-12. Should it be discovered that this program is offered only to pre-school aged children, it will be excluded. Additionally, the selected outcomes for this program included parental self-efficacy, use of harsh punishment, child's developmental level and satisfaction with social support system. The outcomes did not explicitly address illicit drug use and/or alcohol when implementing this program. As such further evaluation is required.

Additionally, the PATHS (Promoting Alternative Thinking Strategies) program was included on this list based on its presence on the NREPP registry, the Promise Neighborhoods registry, the NIDA registry and evaluation by Blueprints, crimesolutions.gov and OJJDP; however, in reviewing outcomes on the Blueprints website the outcome areas did not include illicit drug use or alcohol but instead antisocial-aggressive behavior, conduct problems, depression, emotional regulation, externalizing and internalizing. As such, further research is needed to determine if illicit drug use and/or alcohol outcomes are achieved when implementing this program.

Once the 17 Best-In-Class evidenced-based prevention programs were identified, researchers contacted the program owners in order to make them aware of this study, validate the information discovered as well as ask some additional questions. During early June of 2014, interviews were conducted with 12 of the 17 program owners. The remaining five programs could not be contacted prior to study publication.

The initial interview guide covered the following topics:

1. What components make up the core of your program? Who is your program targeting?
2. What risk and protective factors are considered outcome targets for your program?
3. From which of the following do you need participation for your program to be implemented successfully: schools, families and/or community-based organizations?
4. What do these groups contribute to those implementing or participating in your program?
5. Who is implementing your program? What people, organizations or communities?
6. Is your program expanding? If so, how do you describe this expansion?
7. What would enable your program to reach more people more quickly?

The ease with which program owners responded to each of these questions varied. The first two questions were used to validate what researchers thought they already knew from review of content on evaluator and registry sites. The responses to questions three and four followed the general theme that schools are where it all starts. Schools mobilize the communities, provide the space, as well as the staff and students. It is the schools that have the mandate, the connections and the trust of the parents. That said, some of the programs referenced community-based organizations being at the heart of it all. A benefit of such programs partnering with a strong community-based organization is that the organization can often provide the funding for the program while the partnering school provides the infrastructure to host the program.

Families also play an important role – families bring the sustained attendance and reinforce the skills learned in programs back home. Without the family, evidence-based outcomes are challenging to achieve.

Question five proved to be a challenging question for interviewees to answer. As such, researchers broke it down into multiple parts. Researchers initially asked, 'Who is implementing this program?'; however, this question usually yielded a response such as 'the educator at the school' or 'a third party' or 'I don't know'. Some programs indicated that they have lists of those implementing but this information was held close and not broadly shared. A few programs referred to a list of organizations on their websites. Then researchers asked if the program owners knew where the program was being implemented well – if they had a place in mind that was an example of what good looked like and if so, why they felt the program was being implemented well there.

A minimal number of programs were willing to mention communities or even schools that were implementing their programs especially well. Questions six and seven worked well and responses were generally straightforward. Between the review of content on registries, evaluator sites, the aforementioned interviews and review of individual programs sites the following information was collected and gathered into the Program Rubric. A discussion of the content contained in the rubric follows.

Rubric Content Gathered from Review of Registries an Evaluator Sites

Continuum of Intervention

Among the 17 Best-In-Class, evidence-based prevention programs, eleven are considered applicable to a universal population on the intervention continuum. Five programs are considered applicable to a selective population, meaning the program is for individuals at elevated risk along the continuum of intervention. Five programs are considered applicable to an indicated population meaning individuals who are demonstrating early symptoms of a problem. Some programs are applicable to more than one population along the continuum.

Universal prevention strategies address the entire population within a particular setting (schools, families, community). The aim of universal prevention is to deter or to delay the onset of a disorder or problem by providing all individuals the information and skills necessary to prevent the problem. In school settings, universal prevention typically takes the form of alcohol awareness education, social and peer resistance skills, normative feedback or development of behavioral norms and positive peer affiliations.

Selective intervention strategies address specific segments of the population whose risk of developing a substance use disorder is significantly higher than average due to exposure to known risk factors or detectable signs of substance abuse or co-occurring disorders.

Indicated intervention strategies target individuals at high risk who have minimal but detectable signs of symptoms of mental illness of substance abuse problems (prior to the diagnosis of a disorder (National Research Council and Institute of Medicine 2009).

Selected Outcomes

Twelve programs indicated alcohol as a selected outcome. Twelve programs indicated substance use, illicit drug use or marijuana use as an outcome. Other outcome areas identified include: abstinence from substance use, anti-social aggressive behavior, anxiety, bullying, child's developmental level, child maltreatment, close relationships with parents, close relationships with peers, conduct problems, cost effectiveness, depression, delinquency and criminal behavior, early cognitive development, emotional regulation, employment, externalizing, healthy gestation and birth, internalizing, mental health-other, parental self-efficacy, physical health and well-being, positive social/pro-social behavior, post-secondary education, reciprocal parent-child warmth, recovery from substance use, risk factors for continued substance use and other problem behaviors, satisfaction with social support system, school performance, sexual risk behaviors, STIs, substance use-related problem severity, teen pregnancy, tobacco, treatment retention, truancy – school attendance, use of harsh punishment, violence and violent victimization.

Program Origin and Affiliation

The origins and affiliations of these programs varies as well. Some programs are university-based programs while others are for profit organizations. Among the 17 programs, six programs appear to be university-based programs meaning they are programs that were created by and now operate out of a university. Some programs are university affiliated but operate as a non-profit. These programs are codified as university affiliated non-profits of which this list includes one. Five non-university affiliated non-profits are on the list along with five programs that appear to be operated by for profit organizations. One program, the PATHS program, appears to be a university-based program that is also associated with a for profit entity.

Program Setting

Twelve programs are indicated to take place in school-based settings. Six programs are indicated to take place in community-based settings. Three programs are indicated to take place in home settings. Additional settings listed for various programs include: juvenile justice, mental health/treatment center, social services and transitional between contexts. Some variance of settings occurs between different registries. As such, programs that did not explicitly state that they took place in school settings on one registry but did so on another were not eliminated from the Best-In-Class list at this time.

Target Age

Target age of the programs varies. Some programs focus specifically on middle school aged populations while other focus specifically on high school aged populations while others on kindergarten populations. Many programs have offerings targeted at a collection of youth populations. Five of the programs indicate they target late childhood population's ages 5 to 11. Thirteen of the programs indicated they target students in early adolescence ages 12 to 14. Nine of the programs indicated they target student in late adolescence ages 15 to 18.

Rubric Content Gathered from Interviews with Program Contacts and Owners

Core Program Components

The core program components vary across the 17 programs. One program, Big Brothers Big Sisters, uses one on one mentoring. Multisystemic therapy utilizes one on one therapy sessions. Eight of the programs are multi-module curriculum based programs the content of which varies considerably. Some programs direct curriculum solely at the student while other curricula focuses on both the student and the family.

Risk Factors and Protective Factors

A long list of risk and protective factors are addressed amongst these programs. Risk and protective factors vary across the individual, peer, family, school and community. Some programs address only family or individual risk factors while others address risk factors from each of the aforementioned categories.

Participation for Successful Implementation

Schools, family and communities are cited as necessary for successful implementation. Generally speaking it was cited that schools are important because they provide the students and the families. Often times, but not always, schools provide the space as well as the program facilitators. The community is important because community-based organizations often provide the funding. Finally, families play a pertinent role in the attendance and sustainability of the programs – ultimately it is the family that shows up and the families that will ensure that the skills and practices learned are implemented.

Participant Contribution

Similar to above, to varying degrees schools, families and communities all play a role among the programs identified.

People, Organizations and Communities Implementing

The program owners that were interviewed as part of this study are aware of the people implementing their programs to varying degrees. Many program owners held this information closely as they saw this information as their client list or as proprietary information. Researchers believe that most would be willing to share this information if the request were further pursued. Some programs can name individuals while others are more aware of agencies or organizations that are implementing the programs. Some programs were willing to mention communities or even schools that were implementing their programs especially well. Where specific programs and schools were mentioned they were recorded in the rubric. Other programs may be willing to share more information should researchers pursue a follow-up discussion and provide more context. Very few, if any, programs were willing to share a complete picture of all of the locations where their program was being implemented during the initial inquiry.

Post study follow-up with program owners as indicated will be a critical part of the next collective action necessary to close the gap on access to Best-In-Class alcohol and other drug prevention programs. It is not enough to identify and make known such programs - we must share where such programs are working well and what is contributing to their outcome effectiveness.

Program Expansion

Some programs are interested in expanding while other programs were not. Some programs consider increasing the amount of content they are offering while others are more focused on offering more training in their methodology. Limitations to expansion include funding, facilitator/trainee turnover, time and getting buy-in from families.

Discussion

During peer review of this research, a number of interesting topics were discussed. This section highlights those conversations.

Funding

The funding of prevention programs remains challenging. Often, schools that need the programs the most – those schools with students with a higher number of risk factors – are low performing schools. Therefore, these schools find it challenging to take time away from core curriculum to cover a topic on which kids won't be tested as school funding is tied to test scores.

The Safe and Drug-Free Schools and Communities Act supported programs to prevent violence in and around schools, prevent the illegal use of alcohol, tobacco and drugs and involve parents and communities. According to a May 2014 report by the Center for Health Care in Schools, in 2010, Congress discontinued funding for the primary federal program that supported wide-scale, whole school prevention activities—the program of formula grants to states under the Safe and Drug-Free Schools and Communities Act (SDFSCA). The Office of Safe and Drug-Free Schools and it's programs were moved into a new Office of Safe and Healthy Students within the Office of Elementary and Secondary Education (OESE). This change was effective on September 26, 2011. That said, Congress continues to appropriate funds for the SDFSCA national competitive grants program. Furthermore, several other Elementary and Secondary Education Act programs explicitly or implicitly permit appropriations to be used for prevention-related activities.

Elementary and Secondary Education Act program that explicitly permit appropriation to be used for prevention-related activities include:

- The School Counseling program provides funding to establish or expand elementary and secondary school counseling programs and statutory language explicitly allows funds to be used for prevention-related activities. In FY 2014 funding was $49,561,000.
- The Drug-Violence Prevention (DVP) State Programs group administers State and local educational formula programs authorized under Title IV, Safe and Drug-Free Schools and Communities Act authorized under the Elementary and Secondary Education Act of 1965 (ESEA). Programs authorized under this legislation provide financial assistance for state and local drug and violence prevention activities in elementary and secondary schools, and institutions of higher education. Activities may be carried out by state and local educational agencies and by other public and private nonprofit organizations. Spe-

cifically, the group has lead responsibility for the Safe and Drug-Free Schools State Programs. Funding sources include:

- Safe and Supportive Schools (Discretionary Grants) http://www2.ed.gov/programs/safesupportiveschools/index.html
- Governors' Grants (Formula Grants) http://www2.ed.gov/programs/dvpgovgrants/index.html
- Grants to States to Improve Management of Drug and Violence Prevention Programs (Discretionary Grants) http://www2.ed.gov/programs/dvpstatemanagement/index.html
- Safe and Drug-Free Schools Native Hawaiian Program (Discretionary Grants) http://www2.ed.gov/programs/dvpnathawaii/index.html
- State Formula Grants for SEAs (Formula Grants) http://www2.ed.gov/programs/dvpformula/index.html

- The Drug-Violence Prevention (DVP) National Programs group administers discretionary grants and other programs related to developing and maintaining safe, disciplined, and drug-free schools. Programs authorized under Title IV, SDFSCA of the Improving America's Schools Act of 1994 provide financial assistance for drug and violence prevention activities in elementary and secondary schools, and institutions of higher education. Activities may be carried out by state and local educational agencies and by other public and private nonprofit organizations. Specifically, the group has lead responsibility for the Safe and Drug-Free Schools National Programs:
  - School-Based Student Drug-Testing Programs (Discretionary Grants) http://www2.ed.gov/programs/drugtesting/index.html
  - Discretionary Grants to Reduce Alcohol Abuse (Discretionary Grants) http://www2.ed.gov/programs/dvpalcoholabuse/index.html
  - The Challenge Newsletter Grant Competition (Discretionary Grant) http://www2.ed.gov/programs/thechallenge/index.html

In conversations with program owners, many of the programs being implemented are done so through a combination of federal, state and other community funds.

Many states, universities and individual programs have completed cost-benefit analysis on programs and the cost to implement the Best-In-Class programs varies widely. For example, research conducted by Washington State Institute for Public Policy in 1998 found that implementing LifeSkills training cost only $9/student/year for 3 years. Therefore, it is recommended the cost not be ignored when selecting from these programs.

Programs that the Study Does Not Highlight

In the review of this study, there were a few program that reviewers were surprised not to see make the Best-In-Class list. Both keepin' it REAL and the Third Millenium Classroom were noted. This highlights a

limitation of this study. In regards to the Third Millenium Classroom – this program never appeared on the registries or the evaluator sites referenced and as a result, a program that a practitioner views are evidence-based and effective was previously not even mentioned in this study. This reminds us that the intent of this study is not to suggest that only these 17 programs should be funded but instead to encourage collaboration among programs and disseminators as well as help those individuals who are asked to select a prevention program for their school or their community. In regards to keepin' it REAL, this program did appear on the registries included in this study and has proven to be effective by a practitioner in the field; however, because the evaluation was not conducted by one of evaluators reviewed in this study, the program was excluded from the Best-In-Class list.

Cultural Grounding of Programs

Some research has been conducted demonstrating that programs may be more effective when they are culturally grounded for a target population. Research conducted by Hecht et. al. states, Ethnic, racial and cultural influences play a role in the prevalence of substance use and abuse, in developmentally related increases in use and in the effectiveness of substance use prevention. For example, African American adolescents demonstrate substantially lower rates of alcohol, tobacco and marijuana use than do non-Hispanic Whites, whereas Latino students generally report rates of use between the other two groups'. This variance in use by different cultures indicates that culturally-specific variables influence use and may also influence effective-prevention tactics. This hypothesis was proven in research conducted in the 1990's by D.B. Kandel, which stated, 'Researchers have long recognized that the most successful prevention programs reflect aspects of the adolescent's culture and learning style in their content and format' (Kandel 1995). Therefore, a practitioner should pay close to attention to programs either specifically designed for the cultural make-up of their target population or with adaptations available for those populations. The Best-In-Class list that resulted here did not address the cultural grounding of programs in the applied methodology. Therefore, if a practitioner were seeking a program for a specific cultural group, we may recommend reapplying the methodology shared here while adding the cultural variable to the cross-referencing. Additionally, should a practitioner want to develop a program or adapt a program for a specific cultural group, they may want to reference the work of Felipe Gonzalez Castro, Manuel Barrera Jr. and Lori K. Holleran Steiker and their success with including at risk students in the process of developing the cultural adaptation.

Program Fidelity and Adaptability

As programs are disseminated and implemented across diverse geographic and cultural landscapes it is important that programs be implemented with fidelity (as the developers intended them to be implemented); however, effectiveness is likely correlated with a degree of adaptability. As a practitioner, adapting a program to meet specific time, budget or cultural parameters is likely. In doing so, it is important that practitioners focus on and uphold program core components to ensure that the program that they selected for its effectiveness is still being implemented with fidelity.

The Prevention/Intervention Continuum

Research conducted by Elizabeth C. Pomeroy and one of our study reviewers, Lori Holleran Steiker, discusses the past dichotomy that has been made between prevention and intervention and suggests that often, prevention can be used as intervention. They write, 'Although prevention is often categorized into primary (or universal), secondary (or selective) and tertiary (or indicated) target areas, some argue that – by definition – tertiary programs are not actually preventative because they address those individuals who are already displaying the behaviors they intended to prevent' (Pomeroy and Steiker 2012). As a school-based practitioner of a prevention program, it is unlikely, in a group setting that the receiving audience will all fit neatly into one of these categories. As a result, this perspective that a prevention program may also serve as an intervention may be useful to practitioners seeking funding or support for such programs.

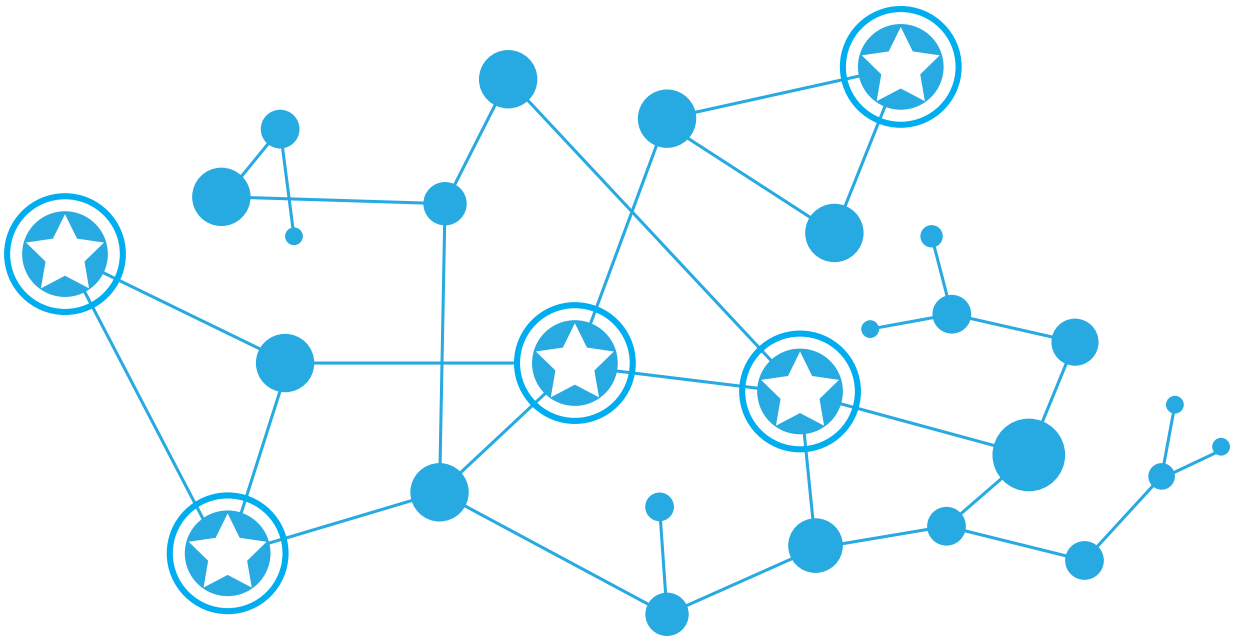
Conclusion

This study outlines a history that has gotten us to the point we are at today. Over the past century, our cultural understanding of alcohol and other drug use, abuse and prevention has significantly matured. We now understand that these topics must always be considered alongside mental health, school health and overall well-being. There is no question – youth are a product of their environment – their families, communities and schools must work to minimize risk factors and maximize protective factors. In particular, to do this in schools we must increase access to Best-In-Class alcohol and other drug prevention programs.

We can close the gap on access by making known these Best-In-Class programs to a broad audience of government officials, school administrators, school health professional, parents and families.

Mapping where these programs are successfully being implemented can allow practitioners to better share knowledge and experiences so as to implement such programs with fidelity. Families and parents can demand Best-In-Class prevention programs in their schools and communities and funding organizations can see the footprint of thriving prevention practices so as to be compelled to take action to further close the access gap.

This is a picture of the collective action that can transform prevention practices for our youth — one community, one school, one student at a time.



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The Risk and Protective Factors Affected by Prevention Practices

Prevention scientists have created a preponderance of resources dedicated to the evaluation of evidence-based drug and alcohol prevention programs for K-12 students. Central to evaluating evidence-based prevention programs is the identification of the risk and protective factors that a program intends to affect. This reference (Table E) aims to aggregate some of the information available around risk and protective factors affected by evidence-based alcohol and other drug prevention programs.

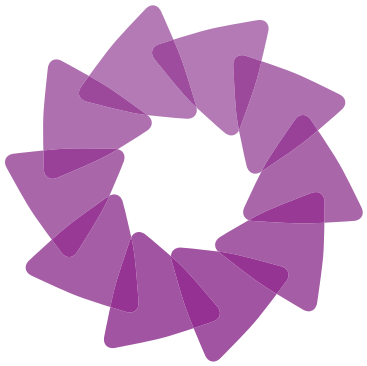
It is well established that prevention practices aim to instill skills and habits that protect against health risking behaviors and directly address known risk factors. Fundamentally, evidence-based prevention programs are a component of prevention practices (programs, policies, services) that evaluation research has determined to be effective as a result of addressing these factors. Some of these prevention practices help youth develop the intentions and skills to act in a healthy manner while others focus on creating an environment that supports healthy behavior. As a result of these factors being instrumental in any program evaluation process, an aggregation of risk and protective factors cited within reviewed prevention literature is provided. Risk and protective factors are listed in relation to the five essential domains of self, family, peer, school and community.

Table E: Aggregate List of Protective and Risk Factors by Domain

Domain	**Protective Factors** Less likelihood of health risking behaviors including alcohol and drug abuse	**Risk Factors** Greater likelihood of health risking behaviors including alcohol and drug abuse
Individual	• Impulse control • Positive temperament • Social coping skills (problem solving, ability to stand up for beliefs and values) • Positive social orientation (engaging in activities that contribute to healthy personal development, accepting rules and community values, identifying with the school and choosing friends who do not use harmful substances) • Belief in one's ability to control what happens and to adapt to change • High intelligence • Resilient temperament • Pro-social orientation • Having high self-esteem	• Poor social coping skills • Early aggressive behavior • Early and persistent antisocial behavior • Rebelliousness • Gang involvement • Favorable attitudes toward the problem behavior • Early initiation of the problem behavior • Perception of harm from alcohol use is low

Family	• A strong bond between children and their families • Parental involvement in a child's life • Supportive parenting that meets financial, emotional, cognitive and social needs • Clear limits and consistent enforcement of discipline • Age-appropriate parental monitoring of social behavior, including establishing curfews, ensuring adult supervision of activities outside the home, knowing the child's friends and enforcing household rules • Unity, warmth and attachment between parents and children • Parental supervision • Contact and communication between and among parents and children • Experiencing a strong bond with a parent or caregiver • Having parents who talk regularly with their child about drugs • Favorable parental attitudes and involvement in problem behavior	• Lack of mutual attachment and nurturing by parents or caregivers • Ineffective parenting • A chaotic home environment • Lack of a significant relationship with a caring adult • A caregiver who abuses substances, suffers from mental illness or engages in criminal behavior • Lack of parental supervision • Family history of problem behavior • Family management problems • Family conflict • Living with an addicted family member • Parent or sibling uses alcohol (or perception of use) • Parent monitoring of their children is limited • Parental care or involvement with their children is low
Peer	• Academic competence • Spending time around positive role models who don't use tobacco, drugs or alcohol • Being involved in healthy activities that involve managed risk, such as rock climbing, karate or camping	• Association with peers with problem behaviors, including drug abuse • Substance abuse • Peer norms favor alcohol use
School	• Success in academics and involvement in extracurricular activities • Anti-drug use policies • Schools characterized by academic achievement and students who are committed to school • Attending a school with an effective drug education program and a no-tolerance policy for alcohol and drugs	• Inappropriate classroom behavior, such as aggression and impulsivity • Academic failure • Drug availability • Lack of commitment to school • Victims of bullying (including cyberbullying) • Attending a school without strict rules that address tobacco, alcohol or drugs and consistent enforcement for breaking those rules
Community	• Strong bonds with pro-social institutions, such as school and religious institutions • Acceptance of conventional norms against drug abuse • Strong neighborhood attachment • Positive emotional support outside of the family such as friends, neighbors and elders • Supports and resources available to the family • Community and school norms, beliefs and standards against substance abuse • Being active in faith-based organizations, or school, athletic or community activities • Living in a community that offers youths activities where drugs and alcohol are prohibited	• Misperceptions of the extent and acceptability of drug-abusing behaviors in school, peer and community environments (permissive norms) • Poverty • Availability of drugs • Community laws and norms favorable toward drug use, firearms and crime • Low neighborhood attachment and community disorganization • Extreme economic deprivation • Residing in a community with a high tolerance for smoking, drinking or drug use among youths

Sources: (NIDA 2003; SAMHSA 2010; Communities that Care 2014; NIDA 2014; U.S. Department of Education & U.S. Department of Justice 2012; SAMHSA 2014b; Social Development Research Group N.D.)



Transforming Youth Recovery