

Substance Abuse Prevention Plan for Alexandria September 30, 2008

**Jerome Short, Ph.D. and Christianne Esposito-Smythers, Ph.D.
George Mason University**

Three recent reports provide a disturbing picture of youth substance use in the city of Alexandria. Rates of substance use reported by Alexandria youth exceed national rates for alcohol and marijuana use by middle school and high school students as well as national rates for tobacco use by middle school students. Results of these reports also suggest that many aspects of the home, school, and larger community environment in Alexandria may place youth at increased risk for substance use and abuse. Moreover, there do not appear to be an adequate number of protective factors in place to effectively prevent the onset and progression of youth substance use.

The three research reports that provide evidence for these conclusions include: 1) the Alexandria Developmental Assets Report (March 2007) conducted with a sample of 3041 students in grade six through twelve in city schools; 2) the Alexandria Youth Risk Behavior Survey: Final Report (February 2008) conducted with a sample of 2007 students in grades seven through twelve in city schools; and 3) the Qualitative Assessment of Alexandria Youth Substance Use Report (September 2008) conducted with a sample of 72 youth and parents from focus groups as well as 40 key informant interviews and 366 online survey respondents that included youth, parents, youth service providers, police, business community members, government employees, faith community members, and other community members from Alexandria. The methods employed to collect these data included school-wide surveys of public school students, community surveys, focus groups, and/or key informant interviews.

The present Prevention Plan report provides an overview and analysis of the main factors that may contribute to youth substance use in Alexandria based on data summarized in the context of the three aforementioned research reports. We also offer recommendations to prevent and/or curtail youth substance use in Alexandria based on resources available in the city. This report is organized around factors identified in research that have been shown to contribute to youth substance abuse as well as evaluations of effective prevention programs in other communities throughout the United States. Specifically, we first identify the risk factors for adolescent substance abuse that emerged in the context of the research evaluations. This includes: 1) high rates and early onset of substance use; 2) easy availability of substances; 3) lack of effective enforcement or consequences; 4) lack of effective parenting skills and parental communication with schools; 5) need for psychoeducation about youth substance use; and 6) need for more substance abuse prevention activities and practices. These summaries are then followed by recommendations to address each high risk area.

A. High Rates and Early Onset of Youth Substance Use.

Summary. The rates of lifetime substance use reported by Alexandria youth were higher for ethnic minority groups than whites in Alexandria during the middle school grades and exceed national rates. However, during the high school grades, whites reported more substance use than ethnic minority group members, and whites exceeded national rates. The rates of lifetime substance use for males and females in Alexandria were similar during the middle school grades, but males reported heavier substance use in the high school grades than females. Specific statistics follow below.

Middle school by ethnicity results. In the middle school grades (seventh and eighth grade), Hispanic (54%) and black youth (45%) reported higher rates of lifetime alcohol use than white (34%) and Asian-American youth (17%) according to the Youth Risk Behavior report. Similarly, Hispanic (19%) and black youth (16%) reported higher lifetime rates of marijuana use than white (5%) and Asian-American youth (5%). Also, Hispanic (45%) and black youth (36%) reported higher lifetime rates of cigarette use than white (14%) and Asian-American youth (26%). The rates of lifetime alcohol and marijuana use for Hispanic and black youth in Alexandria exceeded the rates reported nationally (39% lifetime alcohol use and 14% lifetime marijuana use) by the eighth grade from the 2007 national Monitoring the Future study. The lifetime rates of cigarette use for Hispanic, black, and Asian-American youth in Alexandria exceeded the rates reported nationally (22%) for eighth graders.

Middle school by gender results. The rates of lifetime alcohol use for males (45%) and females (44%) and lifetime cigarette use (35% for males and 33% for females) are very similar in the Alexandria middle school grades. Lifetime marijuana use was reported by 17% of males and 11% of females.

High school by ethnicity results. In the high school grades (ninth through twelfth grade), white youth (81%) reported higher lifetime rates of alcohol use than Hispanic (69%), black (59%), and Asian-American (35%) youth. Also, white youth (34%) reported higher rates of current heavy alcohol use than Hispanic (19%), black (14%), and Asian-American (3%) youth. The rates of current heavy alcohol use for white and black youth in Alexandria exceeded national rates (30% for whites and 11% for blacks) reported in the 2005 national Youth Risk Behavior Survey Report.

White youth (42%) reported higher rates of lifetime marijuana use during high school than Hispanic (33%), black (32%), and Asian-American (10%) youth. Also, white youth (25%) reported higher rates of current marijuana use than Hispanic (17%), black (17%), or Asian-American (4%) youth. The rates of current marijuana use for white youth in Alexandria exceeded national rates (20% for white youth) reported in the 2005 national Youth Risk Behavior Survey Report.

Hispanic youth (56%) reported higher rates of lifetime cigarette use during high school than black (47%), white (46%), or Asian-American (37%) youth. Asian-American youth

(8%) reported higher current rates of smoking more than 10 cigarettes per day than white (7%), Hispanic (5%), and black (5%) youth. The rates of cigarette use for each group in Alexandria were below national rates (57% for Hispanics, 55% for blacks, and 54% for whites) reported in the 2005 Youth Risk Behavior Survey Report.

High school by gender results. In the high school grades, females (69%) reported more lifetime alcohol use than males (65%), but more males reported current heavy alcohol use (22%) than females (19%). High school males in Alexandria reported more lifetime marijuana use (37%) than females (32%) and more current marijuana use (22% for males and 19% for females). High school males also reported more lifetime cigarette use (53%) than females (46%) and higher current rates of smoking more than 10 cigarettes per day (9% of males and 3% of females).

Reasons for use. The most common reasons that youth gave for engaging in substance use in the Qualitative Assessment report were: the desire to fit in, to act “cool” or older, peer pressure, curiosity, like the feeling that occurs, to relax, to relieve stress, to relieve boredom, to escape school or family problems, observing family members and others doing it, and becoming addicted. The research literature suggests that substance use is a learned behavior maintained by positive reinforcement in which one obtains something for substance use behavior (to feel good) and negative reinforcement in which one stops an aversive situation (to stop bad feelings). Personality characteristics such as impulsiveness, sensation seeking (curiosity), and alcohol expectancies (improved cognitive, motor, and social functioning) also motivate substance use. In the focus groups, many youth agreed that in high school “everyone drinks alcohol” and “life is boring without weed.” Some stated that it was easier to get marijuana than alcohol.

Limitations of current data.

The current Alexandria data sets do not match students’ reports of substance use longitudinally to better determine the predictors and course of Alexandria youth substance use. There were no responses from private school students in the Alexandria Developmental Assets Report and the Alexandria Youth Risk Behavior Survey: Final Report and this limits the generalization of the results to all students in Alexandria. Also, experimental intervention data with random assignment to experimental and control groups is needed to better understand cause-and-effect relationships to prevent youth substance use.

Recommendation 1. The Substance Abuse Prevention Coalition of Alexandria (SAPCA), the Alexandria City Public Schools (ACPS), and city officials should inform the citizens of Alexandria of all ages about these higher than average national rates of Alexandria youth substance use and abuse to motivate prevention efforts. Also, they should provide public education to the community about the dangers of substance use and the effects of specific substances on young people. It will also be important to disseminate information about the risk factors for substance abuse (e.g., depression and oppositional behavior) and symptoms of substance abuse as well as local mental health and substance abuse resources.

Recommendation 2. ACPS should administer the Youth Risk Behavior Survey items on substance use yearly to students in grades 7 to 12 to determine whether there are changes in substance use over time and to evaluate the effects of any future prevention programs. Private schools should administer the same substance use items to their students in grades 7 to 12 and make the information available to the community.

B. Easy Availability of Substances.

In the Qualitative Assessment Report, youth reported that they obtained alcohol, cigarettes, and marijuana by: taking them from parents at home with and without permission; asking older friends, family members, and strangers to buy it for them (often while standing outside liquor and convenience stores); stealing from stores; and using fake ID cards. For marijuana, there was a greater reliance on drug dealers in neighborhoods and other youth selling it. The majority of youth reported that it was “sort of easy” or “very easy” to get alcohol, cigarettes, and marijuana. Approximately 57% of youth said that someone in their family had a history of a severe alcohol or drug problem. These research results suggests that many youth may possess a genetic predisposition toward substance abuse, model the substance use behavior exhibited by family members, and are able to easily access substances in their home and community. A subgroup of parents and other adults indicated that substance use is not a problem but merely “a part of normal development”. Comments such as these may reflect that many parents were involved in substance use when they were in high school and thus view this behavior as normative. Indeed, prior research suggests that marijuana use peaked at 51% among 12th graders in 1979 (Monitoring the Future, 2005). The majority of youth reported in the online survey that one or more of their friends used cigarettes, alcohol, or marijuana, or had been suspended from school (reason was not specified). In the Youth Risk Behavior Survey, 19% of high school students reported they were offered, or they sold, drugs at school. Some police officers, parents, and community members indicated that the close proximity to Washington, DC increases the availability of substances.

Limitations of current data.

There are minimal quantitative data on parenting behaviors known to be associated with youth substance use. Moreover, the small number of questions about parenting in the Qualitative Assessment report did not match parent and child responses from the same family to compare and contrast their perspectives about family substance use and availability.

Recommendation 3. Parents and family members should seek treatment for substance abuse problems and minimize or eliminate the availability of substances in their homes. Parents should get to know their children’s friends and monitor their children’s activities to reduce opportunities for substance use.

C. Lack of Effective Enforcement and Consequences for Substance Use.

Approximately 45% of youth reported that they would not be caught by their parents if they drank alcohol without their permission according to the Qualitative Assessment report. Further, most youth in the focus groups stated that their parents would likely just take substances from them and give them a long lecture. Other youth stated that their parents would punish them, beat them, call the police, or threaten to throw them out of the house. Most youth reported that their parents merely told them “don’t drink” and “don’t smoke” with minimal dialogue. Most of these parental behaviors are unlikely to impact their children’s substance use. While many parents reported that they were very comfortable (85% to 92%) setting limits on alcohol, tobacco, and marijuana use, they were generally not the parents of the youth who responded. However, many parents said that they did not know the legal consequences for youth substance possession or use.

Approximately 35% of youth reported in the online survey that they would not be caught by police if they drank alcohol or smoked marijuana. More than half of the police reported that 0 to 10% of youth who use marijuana, sell marijuana, or use alcohol are caught by the police. The police reported that most youth are smoking or drinking at home or in a private residence, and that the youth substance use is often facilitated by poor parental supervision. Some police indicated that there are not enough resources to focus on youth and that it is not an enforcement priority at this time.

The police indicated they were very comfortable enforcing the law. Most reported that they did not know how often substance possession and drunk-driving charges were dropped. Most police wanted stiffer penalties for youth substance use. Some said there should be more punishment of adults who provide alcohol to youth.

In focus groups, youth reported that the best ways for police to discourage teen alcohol and drug use are to be visible, visit classrooms and show videos of what happens when they find youth with drugs, use a search dog in schools, and patrol neighborhoods and convenience stores more frequently. Some youth reported that there should be harsher punishment than juvenile detention because some teens are not afraid of it and many actually brag about it. They suggested that police should threaten to put substance-related arrests on the teen’s permanent record and then tell them how their record could influence their ability to get a job. Teens also noted that police should be less stereotypical in who they target, noting that “police walk right by the girls and focus on the boys. The girls have more stuff than the boys.”

While some youth in focus groups said that they were unaware of potential consequences of getting caught with cigarettes, alcohol, and/or marijuana in school, others generated a number of potential consequences including suspension, expulsion, placement in juvenile detention, and placement in an alternative school. However, many stated that some students that are seen with substances are not reported and others stated that the consequences depend on the status of the individual students. One youth noted “if you’re in good standing and involved in school activities, you really just get a slap on the wrist.

If you have bad grades, 9 times out of 10, you'll get in a lot more trouble." Similarly, another noted that there were "several athletes who were caught drinking/smoking and according to school rules were supposed to be suspended from the team for an entire year and suspended from school. But, nothing was done to them. It's a double standard, and sometimes it also has to do with your race."

Limitations of current data. The statistics and anecdotes described in this section are from the Qualitative Assessment report of online surveys, key informant interviews, and focus groups that comprised a smaller self-selected sample compared to the school-wide surveys for the other reports and may not be representative of the range of views in the community.

Recommendation 4. Parents and ACPS staff should establish and *consistently* enforce rules and consequences (e.g., suspension, grounding) for youth substance use as well as rewards for abstaining from use (e.g., participation in sports, going out with friends) across the home and school environments. These rules and related consequences and rewards should be documented and posted for youth to read. Parents should also be made aware of school rules and regulations associated with youth substance use on school grounds. When substances are used by their child on school grounds, parents should be notified so that consequences can be applied at home as well as at school.

Recommendation 5. Alexandria Police should seek necessary resources to increase enforcement of alcohol and marijuana use and distribution laws, and contributing to the delinquency of minor laws. Police should be visible and patrol areas around schools, convenience stores, and local neighborhoods in the afternoon hours and evening hours to discourage youth substance use. Also, police should provide more information about the legal consequences for youth substance possession and use to youth and their parents.

D. Lack of Effective Parenting Skills and Parental Communication with Schools.

Some parents reported that they were surprised by the prevalence of youth substance use, but many were not as reported in focus groups described in the Qualitative Assessment report. Parents noted that many other parents view the problem as "inevitable" and assume a helpless stance. Specifically, they noted that some parents support use by "turning a blind eye" to the problem, some lack rules to prohibit use, some become intoxicated in front of their children, some do not communicate with their children, and youth spend too much time unsupervised because parents work long hours. While most parents stated that they do not personally know of any parents who provide alcohol to their children, almost all agreed that their children have said "many parents allow it", "parents would rather have them drink in the house than outside in the community", and that oftentimes parents will throw the parties noting that "kids are going to do it so we'll let them do it in our house." Parents also mentioned "beach week." During this week, parents rent beach houses for their teenagers and are aware that their teens are partying unsupervised during this time. Many parents said that they need to become more responsible, involved, communicative, and consistent in their parenting.

Only 22% of youth reported positive family communication and the percentage declined consistently in the higher grades according to the Developmental Assets report. However, the majority (67%) of youth reported high levels of love and support from their families. In focus groups described in the Qualitative Assessment report, youth generated a number of methods that parents could use to discourage teen substance use including talking with their teens about the dangers of substance use, bonding with their teens so that their teens will talk to them when they have problems, set and enforce rules and consequences for use, check their teen's person and rooms for alcohol or drugs, serve as role models/set an example, not allow smoking or alcohol in the house, monitor the movies their teens watch, and live in areas where substance use is not prevalent. Some teens noted that parents should be honest about their histories with substances, but also let them know about all of the negative consequences associated with their use.

Most parents said they wanted more collaboration with schools (described in focus groups from the Qualitative Assessment report), but noted that schools keep alcohol and drug problems "under wraps" and that there is a lack of communication between schools and parents. They said they wanted more family meetings at school to make the parents conscious of alcohol and drug problems within the school.

In addition to substance use, it will also be important to inform parents about the presence of delinquent behaviors. According to research, declines in school grades and attendance, and antisocial behavior are often associated with substance use. Thirteen percent of Alexandria high school students reported physically fighting at school and 24% reported damaging school property in the past 12 months in the Youth Risk Behavior report. Since substance use is correlated with antisocial behavior, these antisocial incidents may signal the likelihood of other risky behavior. Parents and youth reported a lack of consistent consequences for antisocial behavior in school.

Only 29% of youth reported that there was a caring school climate and 29% reported parent involvement in schooling and these numbers declined consistently in the higher grades according to the Developmental Assets report. Many parents indicated a lack of communication with schools and that they would like schools to take attendance throughout the day, provide more education on substance use, and provide more discipline for substance-related offenses. Less than half (48%) of youth reported that they were actively engaged in learning at school.

Many parents' comments suggested that they were eager to learn how to prevent substance use among their children. In the online survey from the Qualitative Assessment report, parents wrote that they wanted to "learn how to talk with their children about alcohol and drugs", to role play discussions and receive feedback from professionals, receive education about drugs (drugs most prevalent in community, rates of use, appearance, smell, effects, reasons for use), have their children hear testimonials from adolescents affected by alcohol and drugs, learn how to help teens resist peer pressure, learn how community members can create coalitions to support healthy adolescent development and discourage substance use, learn how to form strong and healthy

relationships with their child, learn about the relation of substance use to unprotected sex, learn how to manage the problem if it occurs, obtain problem-solving skills, learn how to administer in-home drug tests, learn good disciplinary techniques, learn about legal ramifications of substance use and the judiciary process, learn about the potential negative effects on one's future, and receive information about resources available in the community to treat adolescent substance abuse.

Recommendation 6. SAPCA should facilitate the availability of skills based parenting workshops to increase parents' ability to communicate effectively with children about resisting substance use, monitor their children's behavior effectively, and increase positive time together as a family. To reach the greatest number of families, these workshops should be offered in English and Spanish. Efforts should also be made to increase minority attendance at these workshops.

Recommendation 7. Parents and ACPS staff should monitor declines in grades and attendance, and antisocial behavior as early signs of risk for, or current, substance use. Parents and ACPS staff should begin discussions of concerns about academic progress and vulnerability to substance use in elementary school grades.

Recommendation 8. SAPCA should facilitate increases in the number of parents who support the norm of no substance use by youth by increasing the number of community related drug-free social events for families. Also, SAPCA should facilitate increases in immigrant parents' connection to the school and community through multi-lingual and multi-cultural social events.

E. Need For More Psychoeducation About Youth Substance Use.

In the Qualitative Assessment report, various key informants were asked what materials should be presented in substance abuse prevention education workshops. Youth said they wanted to know the effects of drugs on health, have someone in prison system talk about it, have someone in recovery talk about it, describe the laws about teens riding with friends who have alcohol in the car, and talk about improving family communication. Parents said they wanted to focus on parents' role as supervisors and how to establish and enforce consequences for substance abuse, describe the laws about curfew, describe the physiological effects of alcohol and drugs, and describe effective intervention strategies.

Police said they wanted visual displays of drugs, photographs of healthy lungs before smoking and after, the latest information on drug usage, a regional historical perspective, a sample case study on how a youth began on drugs and the resources used to address the problem, follow-up attempts in the case study and the successes or failures experienced, legal commentary on the impact on youth and parental responsibility, a one-fold handout on available resources, and effects of drugs on the individual, family, and society. Government employees said they wanted facts about teen substance use in Alexandria, description of the effects of different drugs, and discussion of best practices and new ideas. Faith community members said they wanted statistics about substance abuse in Alexandria, guidelines for people who speak to youth about drugs and alcohol, personal

stories of how alcohol and drugs affected individual's lives, information from SAPCA to present at workshops to help adults, provide reasons for substance use, describe how to say "no," and where to get help. Youth service providers said they wanted information about the effects of peer pressure, anger management, tobacco prevention, types of drugs, why teenagers use drugs, where to get help, harmful effects of drugs, description of substance abuse in Alexandria, description of current efforts to reduce substance abuse and what community members can do to help, physical effects of drug and alcohol use on the body and brain, the legal consequences of being caught using drugs or alcohol, speakers who have been abusers, lists of organizations that provide services, a show of different types of drugs, and comparisons of Alexandria with other communities.

A review of the research literature by Hawkins, Catalano, and Miller (1992) concluded that the main factors that affect youth substance use are: 1) laws and norms; 2) availability; 3) extreme economic deprivation; 4) neighborhood disorganization; 5) physiological factors; 6) family drug behavior; 7) family management practices; 8) family conflict; 9) low bonding to family; 10) early and persistent problem behaviors; 11) academic failure; 12) low commitment to school; 13) peer rejection in elementary grades; 14) association with substance-using peers; 15) alienation and rebelliousness; 16) attitudes favorable to drug use; and 17) early onset of drug use. Most effective community interventions focus on integrated, community efforts to reduce risk factors and increase protective factors related to youth substance use.

Recommendation 9. SAPCA should facilitate the delivery of community based psychoeducational workshops on factors related to youth substance use and the most effective prevention practices tailored to the interests of youth, parents, police, business community members, government officials, faith community members, youth service providers, and other community members.

F. Need for More Effective Community Substance Use Prevention Activities and Practices.

Only 41% of youth indicated that they have resistance skills to resist negative peer pressure and dangerous situations according to the Developmental Assets report. Just 30% indicated that they have planning and decision making skills. These skills are necessary to avoid impulsive and risky behavior, such as substance use. Only 5% of Alexandria youth had the recommended 31 or more of the 40 measured developmental assets to avoid risk-taking behaviors and thrive academically and psychologically. The 40 developmental assets include 20 external assets organized around themes of a) support; b) empowerment; c) boundaries and expectations; and d) constructive use of time; and 20 internal assets organized around themes of e) commitment to learning; f) positive values; g) social competencies; and h) positive identity.

Just over half (55%) of youth reported that there were many adults in the community that they could talk to about something important. However, only 34% indicated that they have a caring neighborhood and just 20% said that the community values youth. Less

than half of youth (44%) reported performing one of more hours of service to the community in the Developmental Assets report.

In the Qualitative Assessment report, youth reported that activities currently available to discourage youth substance use include sports programs, recreation centers, clubs, chat rooms, after school programs, groups, safety patrols, and student counselors. Youth also identified a few activities that were particularly helpful such as the “Kids are Terrific Camp” which included education of campers on substance use, its negative effects, and peer pressure; the “Not on Tobacco” group at school for cigarette smokers; and the “National Urban League Incentive To Excel” program.

In the online survey, some members of the business community indicated that jobs, internships, and mentoring can be helpful to youth to avoid substance use, but many indicated that it was not their responsibility and that they could not offer additional activities to help prevent teen substance use.

According to the Developmental Assets report, 52% of youth reported participation in a religious community, which can serve as a protective factor from substance abuse. In the online survey, faith community members indicated that they believe youth substance use is wrong, unhealthy, and strongly discouraged by their members. However, most reported that youth substance use is seldom talked about in their faith community’s meetings. Some indicated a willingness to become better organized in focusing on youth substance use and working with other groups.

The majority of youth service providers indicated that people in all of the groups described in this report need to work together to prevent youth substance use. They most often offered drug education, interpersonal skill building, and recreational activities to prevent substance use. They reported that lack of funding, time, and resources prevented them from offering more prevention activities. Some youth service providers indicated that substance abuse treatment of parents, family members, and friends will help prevent youth substance use because of reduced availability and less modeling of substance use.

A synthesis review of exemplary drug abuse prevention programs in the United States by Winters, Fawkes, Fahnhorst, Botzet, and August (2007) identified 10 elements of effective programs including: 1) prevention curriculum and activities aimed at altering psychosocial risk factors believed to initiate or maintain substance use; 2) programs that assume the validity of the gateway hypothesis and thus focus on alcohol and/or tobacco prevention; 3) multiple influences and settings are targeted; 4) program curriculum spans multiple grades and extends over several developmental periods; 5) activities and curricula are developmentally and socioculturally sensitive; 6) programs expend a meaningful degree of resources in engaging the target population; 7) youth components focus on social skills; 8) parent components focus on discipline and support; 9) the structure and philosophy of the programs encourage broad-based involvement in decision making related to their organizational structure; and 10) several aspects of the programs are infused with features that promote their sustainability.

The Substance Abuse Prevention Coalition of Alexandria (SAPCA), a group of more than 50 citizens of Alexandria including youth, parents, school officials, police, business community members, youth service providers, and other community members who have joined together to reduce youth substance abuse, have recently obtained financial resources to assist in comprehensive, substance abuse prevention programming. SAPCA was awarded a 5-year [Drug Free Communities Grant](#) by the Substance Abuse & Mental Health Services Administration in the amount of \$120,586 per year for a total of \$602,930. This funding started on September 30, 2008 and will support a full time coordinator for the coalition. SAPCA has developed logic models that provide problem statements, strategies, activities, and desired outcomes for reductions of alcohol, tobacco, and marijuana reduction in Alexandria.

Recommendation 10. Through the direction of SAPCA, the city of Alexandria should increase the number of effective substance use prevention practices supported by national and local research, and tailor them to the characteristics of youth, parents, police, business community members, government officials, faith community members, youth service providers, and other community members in Alexandria.

Summary

In this report, we provided an overview of the quantitative and qualitative data that has been gathered across three assessment reports of youth substance use and developmental assets in the city of Alexandria. Then we identified six themes to address in a substance abuse prevention plan for the city: 1) high rates and early onset of youth substance use; 2) easy availability of substances; 3) lack of effective enforcement and consequences for substance use; 4) lack of effective parenting skills and parental communication with schools; 5) need for more psycho-education about youth substance use; and 6) need for more effective community substance use prevention activities and practices. We suggested a comprehensive prevention plan with 10 recommendations to reduce youth substance use and abuse in Alexandria. In our view, the presence and funding of SAPCA will help provide an organizational framework and resources for this prevention plan and provide considerable hope for the reduction of youth substance use and abuse in Alexandria.

References

Hawkins, J. D., Catalano, R. F., Miller, J. Y. (1992). [Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention.](#) *Psychological Bulletin*, 112(1), 64-105.

Winters, K. C., Fawkes, T., Fahnhorst, T., Botzet, A., August, G. (2007). [A synthesis review of exemplary drug abuse prevention programs in the United States.](#) *Journal of Substance Abuse Treatment*, 32(4), 371-380.