



# UNDERSTANDING TEEN DRINKING CULTURES IN AMERICA

LITERATURE REVIEW  
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# Understanding Teen Drinking Cultures in America

## Literature Review

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## **Understanding Teen Drinking Cultures in America: Literature Review**

This document serves as the foundation for a detailed bibliographic review of professional literature of existing research that informs underage drinking. The full bibliographic review will include articles in refereed and non-refereed journals; local, state and federal government publications; dissertations; and national organization and agency reviews. This full review, planned to be finalized by December 2008, will provide detailed grounding for the range of questions and issues to be addressed in the project as a whole.

This foundational document serves as a substantive overview of the professional literature that exists on the topic of teen drinking cultures in America. The project co-directors and staff met almost weekly over the four-month period during which this review and writing were undertaken. The detailed review and writing was accomplished by three Research and Evaluation Associates based at GMU's CAPH. These three professionals, who also had other job responsibilities during this time period, provided the intensive effort central to accomplishing the preparation of this resource.

The initial activities incorporated with this review were aided by periodic meetings with a professional librarian at the library of George Mason University. The activities included the use of the following databases: PsychINFO, ERIC, MedLine, Sociological Abstracts, Social Work Abstracts Plus, Science Citation Index Expanded, ABI-Inform, Anthropology Plus, America: History and Life, Education Full Text, Communication and Mass Media Complete, Expanded Academic ASAP, Dissertation Abstracts, Social Sciences Citation Index, and AnthroSource. With these databases, over 1,000 professional journals were identified for further examination within the identified search criteria.

In the review process, attention was provided to articles that had been published within the last five years, since 2003. The GMU's CAPH professional staff paid attention to articles that addressed the specific demographic characteristics of teen drinking (primarily those teens up to age 18). Specifically, within the domain of "culture", the search terms included the following: "culture, mores, background, traditions, customs, way of life, sociocultural factors, trends, fads, and popular culture." Within the domain of "teen", the search terms included "teens, teenagers, adolescence, adolescents, youth, and young people." Within the domain of "drinking", the search terms included "drinking, alcohol, beer, substance use/abuse/misuse, and risk behaviors."

For the first look at this review, the professional research staff at GMU's CAPH conducted a systematic review of the current literature on the cultures of teen drinking in America. Based on the review criteria and an assessment of the potential contribution of the article to the project's objectives, a total of 250 articles were selected for inclusion in this literature review. While hundreds of additional articles were examined briefly, these were not included in this annotated summary because the content did not provide insight into the specific elements

included in the overall research, or the content and findings were already included in other articles previously selected for inclusion.

These articles were published primarily from 2003-2008, and represent a wide variety of almost entirely peer-reviewed journals. In order to organize the searches and reviews, the project staff designated ten categories of articles, suggesting these organizing factors as helpful in efforts to understand the cultures of teen drinking in the United States:

1. Community
2. Individual
3. Media
4. Parents
5. Peers
6. School
7. Sports and Leisure
8. General Culture
9. Enforcement, Law and Policy
10. Prevention and Intervention

Each of these ten categories includes an overall summary of the literature in that segment as well as identified gaps in current research; this topical overview also incorporates authors' recommendations for future study and/or intervention. Following each category's summary, an annotated bibliography is provided. The last section of the document provides an overall summary and recommendations for future research.

An important element of the literature review, and of this synthesis of the professional literature, is that this incorporates published research articles included in journals referenced by one or more of the databases used. As with any professional review, the summary is limited based on the various elements of the search process: what is selected for publication in the included journals, what is current, and what addresses fairly directly the content sought within the specified search parameters. The inclusion of an article is not necessarily an endorsement of the researchers' theoretical background, methodology, design, conclusions, or recommendations. The important point with this process is that the results obtained during this literature review process are limited to any limitations included in the search process, as well as any limitations inherent in the published articles reviewed. It is within this context that articles are conclusions for this annotated bibliography are made.

## Community Factor Summary

The literature review on the role of community and neighborhood characteristics in the culture of teen drinking resulted in the identification of 10 articles published between 2002 and 2008. Community characteristics cited as playing a role in U.S. teen drinking cultures include neighborhood socio-economic status or poverty levels, perceptions of community attitudes towards drinking, the number and density of alcohol retailers, perceptions of alcohol availability, neighborhood disorganization and cohesion, and perceptions of neighborhood safety. Two studies found increased risk of adolescent alcohol consumption and alcohol-related youth arrests in higher poverty neighborhoods; however, low socio-economic status is found to not always be associated with teen drinking; other factors, such as parental monitoring and peer consumption, also play an important role.

Generally, research on this topic assesses community factors as complements to parent and peer factors in their role on teen drinking. Research results show that community factors such as perceptions of alcohol availability, neighborhood safety and cohesion have unique contributions individually as well as in combination with other influences. Attitudes towards drinking held by adolescents and adults also predict alcohol consumption in youth: one study noted that community youth with greater perceptions of permissiveness around underage drinking drank alcohol at higher rates. Moderating variables such as neighborhood ethnic concentration also help explain the role of communities in teen drinking. For instance, one study reports greater sales to minors and to those who appeared intoxicated in primarily Hispanic neighborhoods with high alcohol retailer density, compared to neighborhoods with less retail and Hispanic density. Two articles also included community protective factors in their studies, and found that opportunities for and involvement with civic participation led to lower rates of adolescent alcohol consumption.

Community-level recommendations reported in the articles of note include attention to the complexity of neighborhood environments, noting how varying levels of influence interact with one another to predict a range of outcomes, including teen drinking. In addition to an appreciation of the complex nature of communities, several authors recommend increased attention to community protective factors such as community and family rewards for prosocial involvement.

Partially because of the logistical difficulties in assessing aspects of neighborhood and community environments, community influences on the cultures of teen drinking are not very prevalent. Furthermore, positive community aspects are studied even less than those defined as community risk factors, with few of the identified articles discussing the role of community protective factors.

## Community Factor Annotated Bibliography

Chuang, Y-C., Ennett, S. T., Bauman, K. E., & Foshee, V. A. (2005). Neighborhood influences on adolescent cigarette and alcohol use: Mediating effects through parent and peer behaviors. *Journal of Health and Social Behavior, 46*, 187-204.

*A group of 959 12 to 14 year olds were interviewed over the telephone as part of the 1996-1997 Family Matters intervention. Adolescents were assessed on parental closeness, parental monitoring, parent smoking, parent drinking, peer smoking, peer drinking, and lifetime alcohol use. Census data was used for neighborhood characteristics of low SES, high SES, residential mobility, immigrant concentration, white and black racial composition and Hispanic concentration. Researchers expected that disadvantaged neighborhoods would directly increase adolescent substance use, and indirectly via parental closeness, monitoring and parent and peer substance use. They found that high SES neighborhoods were associated with parent drinking, and that parent use predicted increased adolescent consumption. In low SES neighborhoods, lower parent monitoring and increased peer drinking predicted increased adolescent consumption.*

De Haan, L., & Thompson, K. M. (2003). Adolescent and adult alcohol attitudes in a high alcohol consumption community. *Journal of Drug Education, 33*, 399-413.

*A total of 558 6<sup>th</sup> through 12<sup>th</sup> grade students completed a classroom survey and 487 adults completed a telephone survey on views of adolescent drinking. Adolescents and adults were part of a community of 4 boundary-sharing cities containing 3 universities where it had been documented that binge drinking rates were higher than the national average. Researchers assessed adult and adolescent attitudes regarding permissiveness of adolescent drinking, penalties for underage drinking, prevention efforts to curb adolescent drinking, perception of adolescent alcohol access and perceived community-wide alcohol problems. They hypothesized that parents of adolescents would have more restrictive attitudes than parents of younger children, parents would have more restrictive alcohol attitudes than non-parental adults, who would be more restrictive than adolescents, and adolescents will overestimate actual adolescent binge drinking in the community while adults would underestimate actual binge drinking. Older students (14 to 17 year olds) held the least restrictive attitudes, with young adults displaying similar results. Both adolescents and adults overestimate community binge drinking prevalence, with adolescents overestimating the prevalence by 64%.*

Duncan, S. C., Duncan, T. E., & Strycker, L. A. (2002). A multilevel analysis of neighborhood context and youth alcohol and drug problems. *Prevention Science, 3*, 125-133.

*Survey data from 55 city neighborhoods covered social cohesion, neighborhood problems with youth alcohol and drug use. Police data provided information on youth substance-related arrests, census data provided neighborhood demographics and observational data provided the number of alcohol retail outlets per neighborhood. Researchers hypothesized that neighborhood demographic variables would influence perceived social cohesion, which would*

*influence perceptions of neighborhood problems. Youth alcohol and drug use was expected to be related to neighborhood arrests. Their expected model was supported, in that more stores were in low poverty neighborhoods, which contributed to lower cohesion reports. Lower cohesion predicted greater perceptions of youth substance problems which related to neighborhood substance-related youth arrests.*

Fauth, R. C., Leventhal, T., & Brooks-Gunn, J. (2007). Welcome to the neighborhood? Long-term impacts of moving to low-poverty neighborhoods on poor children's and adolescents' outcomes. *Journal of Research on Adolescence, 17*, 249-284.

*A group of 221 children between 8 and 18 years old were interviewed as part of the Yonkers Project, a study of a 1985 court-ordered neighborhood desegregation program in Yonkers, NY. Program status indicators were created for 'movers' (those who won the lottery to move to the new housing in low-poverty neighborhoods) and 'stayers' (those who stayed in the high-poverty neighborhoods). Children reported on their school engagement, academic performance, letter-word and passage comprehension, applied problems (math skills), anxiousness/ depression, antisocial behavior, hyperactivity, peer problems, delinquent behaviors and substance use (combined nicotine, alcohol and marijuana past year use). A total of 161 parents also completed measures on parenting quality, parental warmth, primary caregiver hostility, monitoring, rule enforcement, supervision, lenience on substance use, discipline, welfare recipient, neighborhood disorder and informal contact with neighbors. Researchers hypothesized that movers' lower levels of welfare receipt may positively influence child outcomes, neighborhood disorder would affect youth problem behavior via neighborhood safety, order and teen delinquency, and neighborhood social climate would positively influence parenting outcomes. They found that 15 to 18 year old youth that had moved to low-poverty neighborhoods had lower school performance, more hyperactivity and increased substance use, but that both movers and stayers had increased substance use with increased age.*

Freisthler, B., Gruenewald, P. J., Treno, A. J., & Lee, J. (2003). Evaluating alcohol access and alcohol environment in neighborhood areas. *Alcoholism: Clinical and Experimental Research, 27*, 477-484.

*In order to assess community effects on sales to minors and apparent intoxicated customers, apparent minors attempted to buy alcohol at 146 off-premise alcohol outlets for a total of 292 purchase attempts and pseudo-intoxicated patrons attempted to buy alcohol at 135 on-premise establishments. The goal of the study was to assess environmental correlates of sales to minors and to intoxicated patrons. Apparent minors purchased alcohol for 39% of the total attempts and apparent intoxicated patrons were served alcohol in 58% of the attempts. Sales to both groups occurred more often in population dense neighborhoods with greater concentrations of Hispanic residents. Sales to minors occurred more often with female clerks under age 30 at liquor stores close to other alcohol outlets with poor store upkeep. Sales to intoxicated patrons occurred more often with male bar servers under 30 years old.*



Hawkins, J. D., Van Horn, M. L., & Arthur, M. W. (2004). Community variation in risk and protective factors and substance use outcomes. *Prevention Science, 5*, 213-220.

*In 1998 and 1999, 28,091 middle and high school students in 41 communities completed surveys on community, family, school, peer and individual risk and preventive factors for community youth substance use along with measures on their lifetime and past month substance use. Researchers examined differences between communities in terms of risk and protective factors and that those differences would be related to differences in substance use levels across communities. Results indicated between-community variation in risk and preventive factors that did indeed predict substance use, with the exception of school factors. Strongest risk factors for lifetime adolescent alcohol use were perceived availability of substances, parental and peer attitudes favorable of substance use, interaction with antisocial peers and friends drug use. The strongest protective factors for lifetime adolescent alcohol use were community rewards for prosocial involvement, parental attachment, family opportunities for prosocial involvement, social skills and belief in moral order.*

Lambert, S. F., Brown, T. L., Phillips, C. M., & Jalongo, N. S. (2004). The relationship between perceptions of neighborhood characteristics and substance use among urban African American adolescents. *American Journal of Community Psychology, 34*, 205-218.

*A total of 521 African American middle school students completed assessments in 7<sup>th</sup>, 8<sup>th</sup> and 8<sup>th</sup> grades on neighborhood perceptions, beliefs about drug use, control-related beliefs, and past year substance use as part of a longitudinal study conducted by the Baltimore Prevention Research Center. Researchers examined neighborhood characteristics that directly and indirectly affect substance use via adolescents' feelings of control and beliefs about drug use, with gender as a moderator. They found that perceptions of neighborhood disorganization (lack of safety and drug activity) in grade 7 predicted grade 9 alcohol use, with this relationship being mediated by female attitudes about drug use and perceptions of drug harmfulness.*

Paschall, M. J., Grube, J. W., Black, C., Flewelling, R. L., Ringwalt, C. L., & Biglan, A. (2007). Alcohol outlet characteristics and alcohol sales to youth: Results of alcohol purchase surveys in 45 Oregon communities. *Prevention Science, 8*, 153-159.

*Purchase attempts by young-appearing adults were conducted at 385 alcohol outlets in Oregon on various days of the week. Purchasers did not carry identification and attempted to purchase a 6-pack of light beer. They answered truthfully when asked their age (all were over 21). Data was collected on the results of the purchase attempt, gender and age of the salesclerk, outlet type, number of clerks in the store and signage warning against sales to underage. Researchers expected outlets that participated in the state's responsible vendor program would be least likely to sell to decoys, and that the relationship would be mediated by asking for proof of age and posted warning signs. Their expectations were confirmed: of the 34% of outlets that allowed 'underage' purchases (most commonly convenience and grocery stores), purchases were less likely with outlets participating in the responsible vendor program, especially when the decoys were asked for proof of age and at stores with posted warning signs.*

Wilson, N., Syme, S. L., Boyce, W. T., Battistich, V. A., & Selvin, S. (2005). Adolescent alcohol, tobacco, and marijuana use: The influence of neighborhood disorder and hope. *American Journal of Health Promotion, 20*, 11-19.

*A group of 369 middle school students from high-risk communities completed measures on substance use, neighborhood social disorder and sense of hope. Researchers investigated the relationship between all of the measured constructs. They found that both perceived neighborhood disorder predicted increased current alcohol use while sense of hope predicted decreased current alcohol use.*

Winstanley, E. L., Steinwachs, D. M., Ensminger, M. E., Latkin, C. A., Stitzer, M. L., & Olsen, Y. (2008). The association of self-reported neighborhood disorganization and social capital with adolescent alcohol and drug use, dependence and access to treatment. *Drug and Alcohol Dependence, 92*, 173-182.

*In the 1999 and 2000 National Survey on Drug use and Health, 38,115 12 to 17 year old adolescents completed measures on neighborhood disorganization, social capital, alcohol or other drug use, alcohol or other drug dependence and history of seeking treatment for alcohol or other drug use. Researchers examined whether neighborhood disorganization would positively predict substance use outcomes, while social capital would serve in a protective fashion, after controlling for the effects of individual and family-level characteristics. They found that medium and high levels of social capital predicted less substance use and dependence, but social capital was not related to substance use treatment. Neighborhood disorganization predicted all three substance use outcomes.*

## Individual Factor Summary

A literature review on the role of individual characteristics in the culture of teen drinking resulted in a review of 13 articles published between 2003 and 2008. A variety of constructs are used in the study of individual characteristics in adolescent teen drinking. Researchers address neurocognition, drinking motivations, personality traits, mental health disorder, prior family and personal history, behavioral traits, mood (negative affect) and religiosity.

Researchers studying neurocognition and adolescent alcohol consumption find a complex interplay such that the neurocognitive states of adolescents include greater motivation for novel experiences and impulsive decision-making, increasing their risk for underage drinking, which in turn appear to cause a variety of neurocognitive deficits that make it more likely for alcohol consumption and misuse to continue into adulthood. Four studies on drinking motivations and personality traits found various profiles of adolescent drinkers, with differences appearing between male and female adolescents and lighter and heavier drinkers. Identified profiles include experimentation, openness, boredom, and novelty, among others, that differentially predict alcohol outcomes. Adolescents with mental health concerns such as conduct disorder (CD) and attention deficit hyperactivity disorder (ADHD) also provide insight into individual characteristics and teen drinking. For instance, the link between perceived peer use/ peer acceptance of adolescent drinking and adolescents' own use appears to be moderated by symptoms or diagnoses of ADHD. Generally, symptoms or diagnoses of ADHD and/or CD increase the risk of initiating alcohol consumption, continuing alcohol consumption, and misusing alcohol. In addition, adolescents with histories of trauma, including child abuse, demonstrate increased odds of alcohol consumption outcomes. Behavioral traits such as general maladjustment, and mood traits such as negative affectivity, also appear to place adolescents at higher risk in terms of alcohol consumption. In terms of religiosity, a comprehensive review and one investigative study demonstrate that youth with increased spirituality or links to religious groups, practices or beliefs show less early-on alcohol initiation and lower alcohol consumption as a whole.

Using drinking motivations and personality traits to predict profiles of drinking adolescents is reported by the researchers to allow preventionists to tailor their efforts towards differently-motivated adolescents. For instance, one researcher recommended that a program tailored towards youth who are experimentally motivated drinkers could include more education on the effects of substances on adolescent health and would contain different elements than would a program tailored towards those motivated to drink because of boredom. Most researchers also recommend understanding the population of study to the greatest extent possible, since individual characteristics appear to hold so much weight in terms of teen drinking.

Research on individual characteristics and teen drinking generally identifies risk factors, with comparatively much less attention paid to possible protective factors. Religiosity is one protective factor that is gaining ground, and its relationships to less risky behavior in teens demonstrates the possibilities of identifying factors that can protect youth from alcohol misuse.

## Individual Factor Annotated Bibliography

Chambers, R. A., Taylor, J. R., & Potenza, M. N. (2003). Developmental neurocircuitry of motivation in adolescence: A critical period of addiction vulnerability. *American Journal of Psychiatry*, *106*, 1041-1052.

*In a review of literature on the adolescent neurocognitive basis of motivation, impulsivity and addiction, researchers found that adolescents have greater motivation for novel experiences, and immature inhibition control, which can contribute to impulsive decision making regarding risky substances. They note that the neurocognitive state of adolescents is similar to that of all ages with substance use disorders, and prevention and intervention for those with substance use disorder may also work well with adolescents.*

Coffman, D. L., Patrick, M. E., Palen, L. A., Rhoades, B. L., & Ventura, A. K. (2007). Why do high school seniors drink? Implications for a targeted approach to intervention. *Prevention Science*, *8*, 241-248.

*In a study of 1,877 12<sup>th</sup> graders in 2004, students completed the Monitoring the Future survey and were assessed on measures of drinking motivations and risky drinking behavior (grade level of first drink, drunkenness frequency, frequency of drinks before 4 p.m.). Their goal was to identify person-specific motivational profiles for high school alcohol use, and whether gender, initiation, drunkenness and daytime drinking moderated the link between motivational profiles and drinking. Their data resulted in four drinking motivation profiles: experimenters, thrill-seekers, multi-reasoners and relaxers. Members of all profiles reported they drink to have a good time with friends. The most common profile was experimentation, which is regarded as the least risky, and most fitting of adolescent developmental pathways. Females were more likely to be experimenters and males were more likely to be thrill-seekers. Alcohol initiation, drunkenness and daytime drinking predicted motivational profiles.*

Elkins, I. J., McGue, M., & Iacono, W. G. (2007). Prospective effects of attention-deficit/hyperactivity disorder, conduct disorder, and sex on adolescent substance use and abuse. *Archives of General Psychiatry*, *64*, 1145-1152.

*A total of 1,512 year old twin pairs completed structured interviews at three time points (ages 11, 14 and 18) on attention deficit hyperactivity disorder (ADHD), conduct disorder (CD), substance use (i.e., tried alcohol without parental permission), and alcohol abuse/dependence. Mothers also reported on their child's ADHD, CD and substance use. The research question was whether ADHD (symptoms or diagnosis) was a risk factor for the initiation and abuse of substances, and whether the risk varied with comorbid CD, ADHD subtype and gender. The relationship between inattention and substance use outcomes was explained by the other ADHD subtype, hyperactivity/impulsivity. Conduct disorder at an early age also predicted substance disorders later in adolescence. More risk was found in individual ADHD and CD symptoms than in diagnoses.*

Evans, A. S., Spirito, A., Celio, M., Dyl, J. & Hunt, J. (2007). The relation of substance use to trauma and conduct disorder in an adolescent psychiatric population. *Journal of Child and Adolescent Substance Abuse*, 17, 29-49.

*A group of 192 11 to 17 year old inpatient psychiatric adolescents were measured on PTSD, conduct disorder, substance use problems, trauma symptoms, anger, suicidal ideation/behavior, homicidal ideation, history of physical abuse and history of sexual abuse with intake evaluations. They sought to better understand the relationship between substance abuse, conduct disorder and trauma, noting any interactive or additive relationships. They found that substance abuse was most common in adolescents with comorbid conduct disorder and PTSD, without any significant gender or age differences. Those who met substance abuse criteria were also more likely to have post traumatic stress, dissociation, sexual concerns, and state and trait anger.*

Hamburger, M. E., Leeb, R. T., & Swahn, M. H. (2008). Childhood maltreatment and early alcohol use among high-risk adolescents. *Journal of Studies on Alcohol and Drugs*, 69, 291-295.

*This study investigates the association between child maltreatment before age 10, the age of first alcoholic drink, and heavy episodic drinking using data from the Youth Violence Survey in 3,559 7<sup>th</sup>, 9<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders from a high-risk community. Students completed measures on age of first drink, number of days in the past year with 5 or more drinks in a row, and child maltreatment measures (witnessing domestic violence, physical abuse and sexual abuse). All of the child maltreatment measures were associated with alcohol-use initiation and having ever drunk alcohol. This pattern did not hold as well for heavy drinking, as only boys with a history of child sexual abuse reported heavy episodic drinking.*

Maggs, J. L., Patrick, M. E., & Feinstein, L. (2008). Childhood and adolescent predictors of alcohol use and problems in adolescence and adulthood in the National Child Development Study. *Addiction*, 103 (Suppl. 1), 7-22.

*The National Child Development Study collects longitudinal data at ages 7, 11, 16, 23, 33 and 42 from 1965 to 2000. Using 16,009 adolescents, researchers assessed childhood predictors of alcohol use with measures of social background (fathers' social class, parental education, reading with child, relations with parents), behavioral adjustment (social maladjustment reported by teachers, externalizing/internalizing behaviors reported by parents), academic ability (teacher ratings, academic test scores) and alcohol use (weekly quantity). They investigated the childhood predictors (ages 7, 11 & 16) of later weekly alcohol use (ages 16, 23, 33 & 42). All three categories of childhood background were significantly associated with weekly alcohol consumption at age 16. Those who reported more drinking at age 16 were higher in social class, lower in social maladjustment at age 7 and 11, higher in academic ratings at age 7 and 11, were more truant and had poorer adolescent relationships with their parents. Researchers explain that those with higher social class and academic ability may be more able to access alcohol and that middle and upper class leisure activities often involve alcohol.*

Malouff, J. M., Thorsteinsson, E. B., Rooke, S. E., & Schutte, N. S. (2007). Alcohol involvement and the five-factor model of personality: A meta-analysis. *Journal of Drug Education, 37*, 277-294.

*Researchers conducted a meta-analysis on the role of conscientiousness, agreeableness, neuroticism, extraversion and openness in alcohol consumption. They split their analysis by age and gender, creating a children category of interest. They found that for children, there is a moderate, positive relationship with openness and alcohol involvement, and that this relationship does not hold with increasing age. Results for adults were quite different, finding that low conscientiousness, low agreeableness and high neuroticism were markers for alcohol involvement.*

Marshal, M. P., & Molina, B. S. G. (2006). Antisocial behaviors moderate the deviant peer pathway to substance use in children with ADHD. *Journal of Clinical Child and Adolescent Psychiatry, 35*, 216-226.

*In a study of 142 13 to 17 year olds with ADHD, researchers measured ADHD, oppositional defiant disorder, and conduct disorder on average 5 years before reassessment as a teen. As adolescents, they were assessed on conduct disorder symptoms, deviant peer affiliation (perceived peer substance use, perceived peer tolerance of adolescent substance use), heavy alcohol use (past 6 months 'very, very high on alcohol' and past 6 months five or more drinks in a sitting) and substance use disorder symptoms (abuse and dependence). Researchers hypothesized that the relationship between ADHD symptoms as a child and deviant peer affiliation as an adolescent would be moderated by ODD/CD symptoms, that the relationship between deviant peer affiliation and substance use would also be moderated by ODD/CD symptoms and that these moderated relationships would explain the link between ADHD and substance use. Results showed that deviant peer affiliation explained the relationship between childhood ADHD symptoms and all measures of alcohol use as an adolescent, especially for children with greater ODD/CD symptoms.*

Pirkle, E. C., & Richter, L. (2006). Personality, attitudinal and behavioral risk profiles of young female binge drinkers and smokers. *Journal of Adolescent Health, 38*, 44-54.

*Using a telephone interview with 929 females (8<sup>th</sup> graders, high school seniors, and non-collegiate 21-22 year olds), researchers assessed self-monitoring, depressed mood, coping style, religiosity/spirituality, popularity, dieting behavior, and reasons people their age use alcohol or tobacco. They sought to better understand the characteristics associated with binge drinking in girls and young women. They divided their sample into binge drinkers/non-smokers, non-binge drinkers/smokers, and binge drinkers/smokers; 15% of the sample was a binge drinker and a smoker. Binge drinking in non-smokers increased with age, with 10% of 8<sup>th</sup> graders, 24% of high school seniors and 35% of 21-22 year olds reporting binge drinking in the previous month. This group attributed drinking in their age group to boredom and in order to do something they normally would not do. They were also more likely to not be religious and engage in avoidant*

*coping. The number of binge drinking smokers increased with age; this group also attributed others' drinking to boredom, engaged in avoidant coping and had the highest popularity ratings.*

Rew, L., & Wong, Y. J. (2006). A systematic review of associations among religiosity/spirituality and adolescent health attitudes and behaviors. *Journal of Adolescent Health, 38*, 433-442.

*Researchers reviewed 43 studies from 1998-2003 on the role of religiosity or spirituality on adolescent health attitudes and behaviors, including alcohol consumption. Of the 43 reviewed studies, 18 investigated alcohol as an outcome, finding religiosity or spirituality to be a protective factor in adolescent substance use. Overall, they note that females, non-Caucasians and younger adolescents tend to score higher on measures of religiosity or spirituality.*

Shoal, G. D., Gudonis, L. C., Giancola, P. R., & Tarter, R. E. (2007). Delinquency as a mediator of the relation between negative affectivity and adolescent alcohol use disorder. *Addictive Behaviors, 32*, 2747-2765.

*A group of 499 adolescents was assessed three times, when they were 12 to 14 years old (T2), 15 to 17 years old (T3) and 17 to 20 years old (T4), as part of the Center for Education and Drug Abuse Research project tracking drug abuse from adolescence to early adulthood. Adolescents were assessed on negative affectivity and past year alcohol consumption frequency at T2, attitudes towards delinquency, delinquent behaviors, and affiliation with delinquent peers at T3 and alcohol use frequency, alcohol use in response to negative affectivity, and alcohol use disorder diagnosis at T4. Researchers asserted that positive attitudes towards delinquency, delinquent behavior, and affiliation with deviant peers mediates the relationship between negative affectivity in early adolescence and alcohol use or alcohol use disorder in late adolescence. They found that T3 positive attitudes towards delinquency strongly predicted T4 drinking frequency and mediated the relationship between T2 negative affect-related drinking and T4 development of alcohol use disorder.*

Sinha, J. W., Canaan, R. A., & Gelles, R. J. (2007). Adolescent risk behaviors and religion: Findings from a national study. *Journal of Adolescence, 30*, 231-237.

*Parents and 11 to 18 year olds (n=2004) were interviewed on perceptions of religion as important in daily life, religious participation (parent query of number of times per month in organized religious services), and religious program participation (parent query of whether their child participates in organized religious programs). They also completed measures on smoking, truancy, vandalism, interpersonal violence, sexual activity, depression, suicidal ideation, carrying a weapon or gun and current alcohol consumption. They hypothesized that teens who report that religion is important and who participate in organized worship and activities will exhibit lower rates of risk behaviors, after controlling for family background and self-esteem. Only consistent attendance of worship services predicted current alcohol use, with older adolescents and those with lower incomes drinking more than their comparative groups.*

Zeigler, D. W., Wang, C. C., Yoast, R. A., Dickinson, B. D., McCaffree, M. A., Robinowitz, C. B., et al. (2005). The neurocognitive effects of alcohol on adolescents and college students. *Preventive Medicine, 40*, 23-32.

*Researchers conducted a review of neurologic and cognitive effects of underage heavy or problem drinking in 1,371 articles published from 1990 to February, 2003. They found support for immediate neurological consequences such as acute intoxication, blackouts and hangover, disruption of learning and memory, functional deficits, neurodegeneration, sleep cycle effects, and mood disorders. Adolescents reportedly experience greater negative effects from alcohol due to smaller body mass, higher levels of binge drinking and initial lack of tolerance. The negative neurocognitive effects of underage drinking can also continue into adulthood, making it more likely that they will develop alcohol use disorders and that neurological deficits will continue.*



## Media Factor Summary

The literature on the relationship between media and teen alcohol use resulted in a review of 38 articles published between 2003 and 2008. This media section is divided into two parts- advertising and entertainment. The portion on advertising pertains to articles on the advertising of alcohol. The main focus of this section is on the types of alcohol advertising that are aimed at or intended for youth. The entertainment segment includes research articles about alcohol's involvement in magazines, movies, TV shows, etc., and the effect this has on teens.

The 27 published articles on advertising regarding teen drinking cultures resulted in three categories of focus: alcohol promotional items, exposure to advertising, and the prior experiences, skills, and beliefs of the teens. Five articles cited the role of alcohol promotional items. All of the articles reviewed showed an association between actual or desired ownership of the items and the youth's intention to drink or use alcohol. Almost half of the articles related to the setting where adolescents are exposed to alcohol advertising. A majority of these advertising articles discussed alcohol advertising in magazines. The research showed that beer and spirits producers tended to advertise in magazines with readers who are young adults, men, and blacks, while wine advertisers favored older and higher income readers. Specific elements in beer ads were found to significantly contribute to the likeability of the ads and purchase intent of the product and brand name by teens. Likeability was related to elements of humor and story and the use of animal characters. The relationship between drinking and advertising was reported to differ according to the adolescents' prior experiences with alcohol. Finally, in one study, alcohol experience and beliefs about positive outcomes were found to become more strongly associated with memory as drinking habits increase.

Research on entertainment, a total of eleven articles, pertains to the portrayal of alcohol in different forms of media. Portrayals of alcohol are found to be common in television, film, and music. In four studies, movie exposure was related to a significantly higher likelihood of early-onset alcohol use observed across all ages of teens. One study showed that in films with teens as the main characters, almost no differences in character attributes between those who used substances and those who did not were shown. In that study there was an absence of depicted consequences for characters shown drinking or doing drugs. Almost no models of teen characters that declined an offer to drink or use drugs were shown. A disproportionate number of female characters engaged in multiple substance use behaviors compared with males. Based on two studies focusing on music videos, alcohol use was the most frequently referenced of all substance use seen; more positive than negative consequences were portrayed (i.e., social, sexual, financial, or emotional consequences). According to one study, the average adolescent is exposed to approximately 84 references to explicit substance use daily in popular songs, and alcohol is twice as likely to be present in the hip hop/rap genre when compared to the other genres as found in one of the studies. In addition, humor is significantly associated with the presence of alcohol (humor is 2.5 times more likely to be present in videos with substances compared to videos with no substances).

Parental mediation of media viewing seems to moderate effects and is reported to offer a viable method of prevention. Parental rules and monitoring of children's movie viewing are cited by one article to potentially have a protective influence on youths' risk for smoking and drinking, over and above parental monitoring of non-media related behaviors. About half of the articles recommend developing critical thinking skills among teens for when they are exposed to alcohol advertising and alcohol portrayed in entertainment. One article reported that adolescents who had been taught media resistance skills showed a decreased likelihood that they would consume alcohol two years later.

In summary, the published literature on the influence of media on youth demonstrates the complex nature of understanding causes and effects, and has no clear conclusions about the influence of alcohol marketing on teen behavior. Gaps in this overview of the literature pertain to the role of the alcohol industry in advertising and entertainment.

## Media Factor Annotated Bibliography

### Advertising

Casswell, S. (2004). Alcohol brands in young people's everyday lives: New developments in marketing. *Alcohol and Alcoholism*, 39, 471-476.

*This article discusses the importance of finding new policies throughout the world pertaining to alcohol advertising and youth due to the increased exposure of media to adolescents, increased brand marketing, the decreasing importance of family and community, and the global reach of the internet (and lack of control regarding what is found on the internet). The author suggests that all forms of alcohol marketing be required to be subjected to controls in terms of level of exposure to young people and response of young people to the advertising.*

Chen, M.J., Grube, J.W., Bersamin, M., Waiters, E., & Keefe, D.B. (2005). Alcohol advertising: what makes it attractive to youth? *Journal of Health Communication*, 10, 553-565.

*The sample of this study was 253 children and adolescents from two California schools. The youth were shown tapes with alcohol advertisements and given a questionnaire after each ad was played for them. The study looked to examine youth's affective responses to the elements featured in alcohol advertisement and their influence on advertising likeability and advertising effectiveness. Results showed that liking specific elements in the beer ads significantly contributed to the likeability of the ads and the effectiveness indicated by purchase intent of the product and brand shown. The youth's likeability of the ads was related to appreciation of the elements of humor and story and the use of animal characters. Ads focusing on product qualities or those mentioning the legal drinking age were rated less favorably and showed less of a desire to purchase the product. The authors suggest using this information for marketing policies as well as for the production of effective PSA's.*

Collins, R.L., Ellickson, P.L., McCaffrey, D., & Hambarsoomians, K. (2007). Early adolescent exposure to alcohol advertising and its relationship to underage drinking. *Journal of Adolescent Health*, 40, 527-534.

*The sample for this article was South Dakota youth in 6<sup>th</sup> and 7<sup>th</sup> grade. The researchers measured the exposure to television beer ads, alcohol ads in magazines, in-store beer displays and beer concessions, radio-listening time, and ownership of beer promotional items during 6<sup>th</sup> grade, and drinking intentions and behavior in 7<sup>th</sup> grade. The researchers wanted to find out if early adolescents are more vulnerable to alcohol advertising effects than older adolescents. All past studies with advertising and adolescent alcohol use pertain to older adolescents. The researchers found that the exposure to advertising from the six sources listed above at grade 6 was strongly predictive of grade 7 drinking and intentions to drink. Ownership of a hat, poster, or t-shirt that advertises alcohol was the strongest predictor of intention to drink or drinking behavior in 7<sup>th</sup> grade.*

Collins, R.L., Ellickson, P.L., McCaffrey, D.F., & Hambarsoomians, K. (2005). Saturated in beer: Awareness of beer advertising in late childhood and adolescence. *Journal of Adolescent Health, 37*, 29-36.

*The sample for this article was about 2,000 fourth graders and 1,500 9<sup>th</sup> graders attending South Dakota schools. The researchers measured recognition, product naming, brand naming, and liking in response to beer advertisements. The goal of the research was to describe levels of exposure and awareness of advertising at each age to determine how early beer advertising has an impact and to explore if responses to alcohol advertising differ before and during adolescence. The study found high levels of beer advertising awareness in children as young as age 9 and even higher awareness among 14 year olds. The 9<sup>th</sup> graders liked the beer ads more and paid more attention to them; however the 4<sup>th</sup> graders were exposed to the ads more often.*

Collins, R.L., Schell, T., Ellickson, P.L., & McCaffrey, D. (2003). Predictors of beer advertising awareness among eighth graders. *Addiction, 98*, 1297-1306.

*This study included a sample of 1,530 8<sup>th</sup> graders from 20 South Dakota middle schools. Participants were given an in-school survey. The study sought to identify correlates of beer advertising awareness among adolescents at an age at which the initiation of alcohol use is common. The study found that adolescents exposed to advertisement in magazines, at sporting and music events and on television were more advertisement aware and teens that spend time with adults who drink were also more aware. The researchers also found an association between beer advertisement awareness and drinking among boys (no association among girls).*

Committee on Communications for the American Academy of Pediatrics. (2006). Children, adolescents, and advertising. *Pediatrics, 118*, 2563-2569.

*This article discusses the different forms of advertising and media that have an influence on adolescents in our current culture. The main forms of media include television, movies, print media and the internet by which tobacco, alcohol, drugs, food, and sex are advertised. The authors conclude that the development of curricula to advance media literacy and critical thinking for youth is important.*

Ellickson, P.L., Collins, R.L., Hambarsoomians, K., & McCaffrey, D.F. (2005). Does alcohol advertising promote adolescent drinking? Results from a longitudinal assessment. *Addiction, 100*, 235-246.

*This study used a sample of 3111 7<sup>th</sup> graders who were followed through 9<sup>th</sup> grade from 41 middle schools in South Dakota. The researchers wanted to find out if the relationship between the exposure to different kinds of alcohol advertising was related to subsequent drinking among two groups of adolescents (one group who were drinkers already in 7<sup>th</sup> grade and one group who were not drinkers already in 7<sup>th</sup> grade). The research also sought to find out if exposure to Project Alert mitigated these relationships. For the group in 7<sup>th</sup> grade that had not started drinking, the likelihood of drinking by grade 9 increased with a higher level of exposure to in-*

*store beer displays. The adolescents who went through Project Alert were less likely to drink and less susceptible to the in-store beer displays. Future drinking of the youth who had already been drinking in 7<sup>th</sup> grade was influenced by exposure to alcohol advertising in magazines and at sports and music event concession stands. They found that the relationship between drinking and advertising differed according to the adolescents' prior experience with alcohol.*

Epstein, J.A., & Botvin, G.J. (2008). Media resistance skills and drug skill refusal techniques: What is their relationship with alcohol use among inner-city adolescents? *Addictive Behaviors, 33*, 528-537.

*The sample for this study was 1,318 New York City youth with a mean age of 12.9 years old at baseline. The study included baseline, one year follow-up, and two year follow-up. The researchers wanted to examine the impact of media resistance skills on subsequent drinking and whether drug skill refusal techniques mediated the relationship between media resistance skills and adolescent drinking. Results showed that media resistance skills negatively predicted alcohol use 2 years later and drug skill refusal techniques mediated the effect. Baseline media resistance skills were associated with 1 year drug refusal skills techniques, which negatively predicted 2 year alcohol use.*

Fleming, K., Thorson, E., & Atkin, C.K. (2004). Alcohol advertising exposure and perceptions: Links with alcohol expectancies and intentions to drink or drinking in undergrad youth and young adults. *Journal of Health Communication, 9*, 3-29.

*This study surveys two age cohorts- 15-20 year olds and 21-29 year olds. A total of 612 participated. The purpose of the study was to find out whether the impact of alcohol advertising exposure on intentions to drink and actual consumption are mediated by cognitive responses to advertising messages and positive expectancies about alcohol use. The study found that the effects of exposure to alcohol advertising were shown to shape the attitudes and perceptions in both groups. Attitudes and perceptions affected the 15-20 year olds' positive expectancies as well as intentions to drink but did not predict the young adults'. Positive expectancies were powerful predictors of intentions to drink and consumption for both groups.*

Garfield, C.F., Chung, P.J., & Rathouz, P.J. (2003). Alcohol advertising in magazines and adolescent readership. *Journal of the American Medical Association (JAMA), 289*, 2424-2429.

*This study investigated whether advertising frequency is associated with adolescent readership in 35 of 48 major US magazines that track adolescent readership. The researchers found that the advertisement rate ratio was 1.6 times more for beer and liquor for every additional million adolescent readers. They concluded that magazine beer and liquor advertising is associated with adolescent readership.*

Hastings, G., Anderson, S., Cooke, E., & Gordon, R. (2005). Alcohol marketing and young people's drinking: A review of the research. *Journal of Public Health Policy, 26*, 296-311.

*This literature review on alcohol advertising and adolescents shows that while many econometric studies (involve a statistical examination of the relationship between overall levels of alcohol consumption and overall levels of advertising) suggest little effect, more focused consumer studies do show clear links between advertising and behavior. The authors conclude that there will never be a categorical answer to the question, "does alcohol marketing influence young people's drinking?" since the relationships are too complex. Consumer studies, as opposed to econometric studies, do suggest a link between advertising and young people's drinking knowledge, attitudes, and behavior. The issue is, however, complex, subjective, and multifactorial.*

Henriksen, L., Feighery, E.C., Schleicher, N.C., & Fortmann, S.P. (2008). Receptivity to alcohol marketing predicts initiation of alcohol use. *Journal of Adolescent Health, 42*, 28-35.

*This study surveyed adolescents in 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade in 3 middle schools and 2 high schools in a small city in California at baseline and after 12 months. The researchers wanted to find out if adolescents' receptivity to alcohol marketing predicts alcohol use. The study found that non-drinkers at baseline were 77% more likely to initiate drinking by follow-up than those who were not receptive to alcohol marketing. Owning or wanting alcohol promotional items showed the strongest association with adolescent drinking.*

Hurtz, S.Q., Henriksen, L., Wang, Y., Feighery, E.C., & Fortmann, S.P. (2007). The relationship between exposure to alcohol advertising in stores, owning alcohol promotional items, and adolescent alcohol use. *Alcohol and Alcoholism, 42*, 143-149.

*The sample of this study was 2,125 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> graders in 3 California middle schools. The researchers were interested in finding out if adolescents' exposure to retail advertising materials and to branded promotional items was associated with alcohol consumption. The students were given the Survey of Teen Opinions about Retail Environments (STORE). The study found that two-thirds of the students reported at least weekly visits to a liquor, convenience, or small grocery store where alcohol advertising is present. This exposure was associated with higher odds of ever drinking but not associated with past 30 day use. One-fifth of the sample reported owning at least one alcohol promotional item (API) and those students were more likely to report current drinking than students who do not own any alcohol promotional items.*

Jernigan, D.H., Ostroff, J., & Ross, C. (2005). Alcohol advertising and youth: A measured approach. *Journal of Public Health Policy, 26*, 312-325.

*The Center on Alcohol Marketing and Youth (CAMY) was created to monitor alcohol company marketing practices in the U.S. in order to provide an independent review of the industry's practices and to offer a factual basis to debates over youth exposure to alcohol advertising. This article summarizes CAMY's methods and findings, and shows how these data are being used to*

*inform policy debates over youth exposure to alcohol advertising in the U.S. The findings from their research have shown that alcohol companies have placed significant amounts of advertising where youth are more likely per capita to be exposed to it than adults. Based on their findings they have assessed that if alcohol companies would adopt a threshold of 15% (roughly the proportion of 12-20 year olds in U.S. population) as the maximum youth audience composition for their advertising, much of the excess exposure of youth to alcohol advertising could be eliminated.*

Jernigan, D.H., Ostroff, J., Ross, C., & O'Hara, J.A. (2004). Sex differences in adolescent exposure to alcohol advertising in magazines. *Archives of Pediatric Adolescent Medicine, 158*, 629-634.

*The researchers did a content analysis of 6,239 alcohol advertisements in 103 national magazines based on readership (age group and sex). They found that in 2002, underage youth saw 45% more beer and ale advertising, 12% more distilled spirits advertising, 65% more low-alcohol refresher advertising, and 69% less advertising for wine than people age 21 and older. Girls between the ages of 12 and 20 were more likely to be exposed to beer, ale, and low alcohol refresher advertising than women age 21 to 34 or women age 21 and older. Girls' exposure to low alcohol refresher advertising increased by 216% from 2001-2002 and boys' exposure increased 46%.*

Lang, A., Chung, Y., Lee, S., Schwartz, N., & Shin, M. (2005). It's an arousing, fast-paced kind of world: The effects of age and sensation seeking on the information processing of substance-abuse PSA's. *Media Psychology, 7*, 421-454.

*The sample for this study was 59 undergraduate students and 86 adolescents (ranging from 12-17). Participants viewed 30 substance abuse PSA's. The purpose of the research was to find out if sensation seeking and age influence television viewers' information processing of substance abuse public service announcements. Results showed that adolescents recognized more information from the messages than college students (when they were surveyed after viewing the PSA) and that high sensation seekers may have recognized more information from the messages when compared to low sensation seekers.*

McClure, A.C., Dal Cin, S., Gibson, J., & Sargent, J.D. (2006). Ownership of alcohol-branded merchandise and initiation of teen drinking. *American Journal of Preventive Medicine, 30*, 277-283.

*Baseline data for this study was taken from a smoking survey that was administered to 5<sup>th</sup>-8<sup>th</sup> graders in New England middle schools in 1999. The researchers identified which students had not initiated alcohol use and followed up with those students 1 to 2 years later by telephone. They wanted to determine whether Alcohol-branded merchandise (ABM) ownership would be associated with the initiation of alcohol use. The study determined that more than 10% of the adolescents owned an ABM at follow-up and the ownership of an ABM was associated with the initiation of alcohol use.*

Mosher, J.F., & Johnsson, D. (2005). Flavored alcoholic beverages: An international marketing campaign that targets youth. *Journal of Public Health Policy*, 26, 326-343.

*A global perspective of “Flavored alcoholic beverages” (FABs) is given in this article. The authors discuss the history of FABs, the data available regarding youth consumption and problems, and the regulatory challenges they pose. They conclude the article by recommending four approaches for limiting their harm. They include creating a separate regulatory category for FABs, increasing the taxes on FABs and reducing the availability to youth, investigating industry marketing practices, and conducting research on the FAB market and the marketing tactics of FAB producers.*

Nelson, J.P. (2005). Advertising, alcohol, and youth. *Regulation*, 28, 40-47.

*This research involved the analysis of ad placements for alcoholic beverages in 35 magazines between the years 1997-2001. The study sought to determine if alcohol advertising in magazines is targeted towards adolescents. Nelson concluded that beer and spirits producers tended to advertise in magazines with more young adult readers ages 20-24, men, and blacks. Wine advertisers favored older readers (25+) and higher income readers. The study found that adolescent readers were not important statistically for any of the beverages.*

Pasch, K.E., Komro, K.A., Perry, C.L., Hearst, M.O., & Farbaksh, K. (2007). Outdoor alcohol advertising near schools: What does it advertise and how it is related to intentions and use of alcohol among young adolescents? *Journal of Studies on Alcohol and Drugs*, 68, 587-596.

*This study had two objectives- to document and describe outdoor alcohol advertisements surrounding 63 Chicago schools and to look at the association between exposure to alcohol advertising in 6<sup>th</sup> grade and youth alcohol use, intentions, norms, and attitudes in 8<sup>th</sup> grade. There were 2,746 adolescent participants who had completed surveys at the end of both 6<sup>th</sup> and 8<sup>th</sup> grade. Results showed a total of 931 alcohol ads were found within 1,500 feet of the 63 school sites and that exposure to alcohol ads around schools at the end of 6<sup>th</sup> grade predicted alcohol intentions at the end of 8<sup>th</sup> grade.*

Pechmann, C., Levine, L., Loughlin, S., & Leslie, F. (2005). Impulsive and self-conscious: Adolescents' vulnerability to advertising and promotion. *Journal of Public Policy & Marketing*, 24, 202-221.

*This article is a review of the literature on adolescent development in neuroscience, psychology, and marketing. The authors find three reasons why adolescents might show heightened vulnerability to marketing efforts. They are impulsivity, self-consciousness and self-doubt and an elevated risk from product use for both alcohol and tobacco.*



Ringel, J.S., Collins, R.L., & Ellickson, P.L. (2006). Time trends and demographic differences in youth exposure to alcohol advertising on television. *Journal of Adolescent Health, 39*, 473-480.

*Television ratings data on alcohol advertisements were examined for this study to look at time trends in exposure and differences in exposure across demographic groups. The researchers wanted to determine if youth exposure to alcohol advertising on television differs by demographic group. The study found that boys were more exposed to alcohol advertisements than girls and that African Americans were more exposed than whites.*

Snyder, L.B., Milici, F.F., Slater, M., Sun, H., & Strizhakova, Y. (2006). Effects of alcohol advertising exposure on drinking among youth. *Archives of Pediatric Adolescent Medicine, 160*, 18-24.

*Youth and young adults ages 15-26 were contacted via telephone 4 times over 21 months. Researchers were interested in finding out if alcohol advertising expenditures and the degree of exposure to alcohol advertisements affect alcohol consumption by youth. The results showed that the amount of advertising expenditures in 15-26 year olds' media environment and the amount of advertising recalled related to greater youth drinking. Youths who lived in markets with more alcohol advertising drank more, increased their drinking levels over time, and continued to increase drinking levels into their late 20's. The youth who lived in markets with less alcohol advertising drank less and increased their drinking modestly until their early 20's when their drinking levels began to decline.*

Stacy, A.W., Zogg, J.B., Unger, J.B., & Dent, C.W. (2004). Exposure to televised alcohol ads and subsequent adolescent alcohol use. *American Journal of Health Behavior, 28*(6), 498-509.

*This study surveyed 7<sup>th</sup> grade middle school students from 20 middle schools in Los Angeles at baseline and then followed up with the same students when they were in 8<sup>th</sup> grade for follow-up. The researchers wanted to investigate the effects of televised alcohol commercials on the subsequent use of alcohol. They found that exposure to alcohol commercials was associated with an increased risk of subsequent beer consumption but no evidence for an association with wine/liquor consumption or binge drinking was found.*

Weintraub, A., Chen, M.J., & Grube, J.W. (2006). How does alcohol advertising influence underage drinking? The role of desirability, identification, and skepticism. *Journal of Adolescent Health, 38*, 376-384.

*The sample of this study included 652 youth ages 9-17. The purpose of the study was to assess how persuasive media messages for alcohol use lead to concurring beliefs and behaviors among youth. The study showed that interpretations of messages are at least as important as media exposure to adolescent alcohol use. Message interpretation was similar for males and females ages 9-17. Desirability of media portrayals of alcohol use predicted the desire to emulate the*

*portrayals, which predicted the liking of beer brands and positive alcohol expectancies. There was no significant relationship between skepticism and alcohol use. Children's desire for beer themed merchandise appeared to be related to alcohol use. Parental guidance of television viewing affected skepticism and desirability as well as positive alcohol expectancies in beneficial ways. Parental guidance also directly and negatively affected youths' decisions to choose beer themes items and to drink alcohol.*

Workman, J.E. (2003). Alcohol promotional clothing items and alcohol use by underage consumers. *Family and Consumer Sciences Research Journal*, 31, 331-354.

*The data for this study was collected from 260 7th-12th graders from four public schools in a Midwestern state. The purpose of the study was to examine the association between ownership and visibility of alcohol promotional clothing items (APCI's) and alcohol use among adolescents. The data showed that 76% had tried drinking alcohol. More than 36% owned an APCI and t-shirts were the most common item owned. Parents, retail stores, and friends were the primary sources of APCI's. Females and males were equally likely to own APCI's. There were significant differences in APCI ownership among groups- 84% of established drinkers owned an APCI, 36% of susceptible experimental drinkers, 33% of susceptible nondrinkers, 29% of non-susceptible nondrinkers, 29% of non-susceptible experimental drinkers, and 18% of non-susceptible nondrinkers. Finally, participants who had received an APCI from their parents were more likely than those who had not to perceive that their parents approved of them drinking. Parents were also the primary source of the APCI's followed by retail stores then friends.*

Zogg, J.B., Ma, H., Dent, C.W., & Stacy, A.W. (2004). Self-generated alcohol outcomes in 8<sup>th</sup> and 10<sup>th</sup> graders: exposure to vicarious sources of alcohol information. *Addictive Behaviors*, 29, 3-16.

*A sample of 8<sup>th</sup> and 10<sup>th</sup> grade students was studied to find out about their perceived positive and negative outcomes of alcohol use. The results showed that the more participants reported drinking, the better they said the positive outcome would be if it happened to them. The less one reported drinking, the more negative the outcome was rated. Participants who frequently witnessed others drink rated positive outcomes as more desirable than other respondents did. Those who reported less frequent observation of others drinking were more likely to rate a negative outcome as very bad if it happened to them. The research suggests that the effects of vicarious learning are strengthened by behavioral experience. Alcohol experience and beliefs about positive outcomes become more strongly associated in memory as drinking habit increases.*

## Entertainment

Dalton, M.A., Adachi-Mejia, A.M., Longacre, M.R., Titus-Ernstoff, L.T., Gibson, J.J., Martin, S.K., et al. (2006). Parental rules and monitoring of children's movie viewing associated with children's risk for smoking and drinking. *Pediatrics*, 118, 1932-1942.

*This study used a sample of 2606 children (ages 9-12) and their parents to determine the role of parents in monitoring and limiting children's movie exposure and whether or not this was associated with a lower risk of adolescent smoking and drinking. The study found that parents are fairly permissive about their rules and monitoring of children's movie viewing- more than half of the children said their parents allowed them to watch R rated movies at least some of the time. Children whose parents prohibited them from watching R rated movies were more than 40% less likely to be at risk for smoking or drinking. Parental co-viewing was associated with a lower risk of smoking but not drinking. Each of the individual movie monitoring behaviors was more strongly associated with a lower risk for child smoking than drinking. The results of this study suggest that parental rules and monitoring of children's movie viewing may have a protective influence on children's risk for smoking and drinking, over and above parental monitoring of non-media related behaviors.*

Grube, J.W., & Waiters, E. (2005). Alcohol in the media: content and effects on drinking beliefs and behaviors among youth. *Adolescent Medicine Clinics*, 16, 327-343.

*This article is a synthesis of information about research done on alcohol in the media and its effects on drinking beliefs and behaviors among youth. The article states that television, radio, film, and popular music are often identified as potential sources through which young people may learn about alcohol and as potential influences on young people's drinking and drinking problems. Based on the literature reviewed, the authors conclude that alcohol portrayals are common in television, film, and music. The portrayals are often positive or neutral and associate drinking with positive consequences or desirable attributes. Negative consequences are rarely portrayed. Young people have easy access to commercial web sites that promote alcohol. Findings from studies associating the media with alcohol use are mixed and inconclusive. The authors mention that parental mediation of viewing seems to moderate effects and offers a viable intervention. Finally, the authors find that survey studies do provide some evidence that alcohol advertising may influence drinking beliefs and behaviors among some children and adolescents.*

Gruber, E.L., Thau, H.M., Hill, D.L., Fisher, D.A., & Grube, J.W. (2005). Alcohol, tobacco and illicit substances in music videos: A content analysis of prevalence and genre. *Journal of Adolescent Health*, 37, 81-83.

*This study was a content analysis of 359 music videos broadcast on MTV and BET cable television channels in 2001. It sought to evaluate the potential for observational learning of substance use through music video watching by looking at the visual and/or auditory presence of alcohol, tobacco, and illicit substances in the videos. Alcohol was present in one-third of the*

*videos (10% showed actual consumption). Alcohol was twice as likely to be present in the hip hop/rap genre than in the other genres. In addition, humor was significantly associated with the presence of alcohol (humor was 2.5 times more likely to be present in videos with substances compared to videos with no substances).*

Primack, B.A., Dalton, M.A., Carroll, M.V., Agarwal, A.A., & Fine, M.J. (2008). Content analysis of tobacco, alcohol and other drugs in popular music. *Archives of Pediatric and Adolescent Medicine*, 162, 169-175.

*This study was a content analysis of substance use in contemporary popular music. The 279 most popular songs of 2005 according to Billboard magazine were analyzed. They were interested in finding out the prevalence of substance abuse references in popular music. They found that 23.7% depicted alcohol use most often motivated by peer/social pressure or sex. Alcohol use was referenced most frequently of all substance use seen. Alcohol references were most common in country and rap songs. Substance use was commonly associated with partying, sex, violence, and/or humor. More positive than negative consequences were portrayed (i.e., social, sexual, financial, or emotional consequences). The researchers estimated that the average adolescent is exposed to approximately 84 references to explicit substance use daily in popular songs.*

Russell, D.W., & Russell, C.A. (2008). Embedded alcohol messages in television series: the interactive effect of warnings and audience connectedness on viewer's alcohol beliefs. *Journal of Studies on Alcohol and Drugs*, 69, 459-468.

*The purpose of this study was to investigate whether and how warning viewers about the presence of embedded alcohol messages in the content of television programming affects viewers' drinking beliefs and whether audience connectedness moderates the warning's impact. The sample included 250 college students. Results showed that warning viewers about embedded messages in the content of a television series can impact their beliefs about alcohol. Warnings about advertising messages in the episode affected only low connected viewers. The warnings produced lower positive beliefs and greater negative beliefs about drinking compared to the no warning condition. However, highly connected viewers, who have developed parasocial relationships with the television characters were not affected by the advertising warnings.*

Sargent, J.D., Wills, T.A., Stoolmiller, M., Gibson, J., & Gibbons, F.X. (2006). Alcohol use in motion pictures and its relation with early-onset teen drinking. *Journal of Studies on Alcohol*, 67, 54-65.

*This was a longitudinal study, which surveyed 4,655 adolescents ages 10-14 years old from 15 New England schools at baseline and followed-up 2 years later with 2,406 of the same adolescents who had never drank at baseline. The researchers also looked at about 600 popular movies for screen depictions of alcohol use. The purpose of the research was to find out if movie exposure to alcohol use is related to early use of alcohol among adolescents. The results*

*showed that movie exposure was related to a significantly higher likelihood of early-onset alcohol use (observed across all ages in the study).*

Stern, S.R. (2005). Messages from teens on the big screen: Smoking, drinking, and drug use in teen-centered films. *Journal of Health Communications, 10*, 331-346.

*This study was a content analysis of top grossing films from 1999, 2000, and 2001. The films that featured at least one teenager as a central character (ages 12-19) were chosen which included a total of 43 films. The purpose of the study was to assess the frequency, nature, and experienced consequences of substance use among major teen characters in films that featured teens. The results showed that the films portrayed substance use as relatively common and risk free. Two-fifths of teen characters in the films drank alcohol. Almost no differences were found between characters who used substances and those who did not in regards to character attributes. There was an absence of depicted consequences for characters that were shown drinking or doing drugs. Almost no models of teen characters that declined an offer to drink or use drugs were shown. A disproportionate number of female characters were shown engaging in multiple substance use behaviors compared with males.*

Stern, S.R. (2005). Self-absorbed, dangerous, and disengaged: What popular films tell us about teenagers. *Mass Communication and Society, 8*, 23-38.

*This study is additional analysis based on the same methods as the previous study on this list: Smoking, drinking, and drug use in teen-centered films. The purpose of the research was to find out from the 43 teen-centered films who the teenagers are that adults view in contemporary popular films which may have an impact on the negative impressions adults have of teens. The results suggested that popular films may contribute to the generally negative view of teens that persists among American adults. The most popular behaviors performed by teens in the study were self-serving, pleasure-seeking, and violent. Behaviors that would cast teens in a more positive light were rarely shown. Only 4% of teens were shown preparing for a career or college and less than one-fourth were shown doing schoolwork. Less than one-tenth were shown engaging in any religious practices. The depiction of teens as workers, volunteers, and caregivers was absent and most of the characters existed without roots in a residence and without the guidance or supervision of a parent. Also, some minority groups were drastically underrepresented and when non-whites were shown they were significantly more likely to commit violence. The depiction of teens in popular films may reinforce adults' negative views and possibly work to distance them from teens.*

Thomsen, S.R., & Rekve, D. (2006). Entertainment and music magazine reading and binge drinking among a group of juvenile offenders. *International Journal of Adolescent Medicine and Health, 18*, 123-131.

*Juvenile offenders (n=342) ages 12-18 from a medium sized rural western community were surveyed for this study which examines exposure to entertainment and music magazines and its effect on binge drinking. They found that entertainment and music magazine reading frequency*

*was a significant predictor of binge drinking. Gender (being male), perceptions of having easy access to alcohol, and the number of the respondents' four best friends who drink without their parents' knowledge were the three strongest predictors, followed by magazine reading frequency. The authors concluded that the predictive influence of entertainment and music magazine reading could be a reflection of selectivity bias among youth already inclined toward alcohol use and abuse.*

Thomsen, S.R., & Rekke, D. (2004). The differential effects of exposure to "youth-oriented" magazines on adolescent alcohol use. *Contemporary Drug Problems, 31*, 31-58.

*The sample of this study was 972 7<sup>th</sup> and 8<sup>th</sup> grade students from two western U.S. states. The purpose was to examine the impact of exposure to "youth-oriented" magazines on attitudes about alcohol and current drinking practices. The three types of magazines included were music and entertainment, men's lifestyle, and sports. Religiosity, peer, and parental drinking were also accounted for. The results showed that the frequency of exposure to men's lifestyle magazines was positively associated with normative beliefs about teenage drinking, expectancies that drinking will bring about positive outcomes, and the number of alcoholic beverages consumed in the past 30 days. Exposure to music and entertainment magazines was positively linked with normative beliefs that teenagers drink and with drinking expectancies but not with current drinking. Exposure to sports magazines was not related to beliefs, expectancies, or behavior. Peer drinking was the strongest predictor of beliefs about the acceptability of teenage drinking, drinking expectancies, and current alcohol consumption.*

Wingwood, G.M., DiClemente, R.J., Bernhardt, J.M., Harrington, K., Davies, S.L., Robillard, A., et al. (2003). A prospective study of exposure to rap music videos and African American female adolescents' health. *American Journal of Public Health, 93*, 437-439.

*The sample of this study included African American females between the ages of 14 and 18 from non-urban lower-socioeconomic status neighborhoods who had been sexually active in the previous 6 months. A follow-up was done both 6 and 12 months after baseline. The study wanted to find out if exposure to rap music videos at baseline could predict the occurrence of health risk behaviors and sexually transmitted diseases. Results showed that compared with adolescents who had less exposure to rap music videos, adolescents who had greater exposure to rap music videos were 3 times more likely to have hit a teacher, more than 2.5 times more likely to have been arrested, 2 times as likely to have had multiple sex partners, and more than 1.5 times as likely to have acquired a new sexually transmitted disease, used drugs, and used alcohol over the 12 month follow-up period.*

## Parents Factor Summary

A review of the literature from 2002-2008 identified 24 articles exploring the relationship between teen alcohol use and the teens' parents. The majority of the studies reviewed the important role that parents play in the initiation of teen drinking behaviors especially during the pre-teen years of a child's life. The researchers noted that parents introduce alcohol to their children by both modeling and providing 'sips and tastes' in the family context, usually for religious observance or celebrations. However, the researchers stated that most parents underestimate the risk that alcohol plays in their child's life, and that most of the parents assumed their own child abstains from alcohol, or drinks less than is the case. The research authors suggest that this underestimation leads to less communication concerning alcohol use and less parental monitoring of alcohol use.

Protective family measures cited in the research to prevent alcohol initiation include regular family meals, parental warmth, parental engagement/involvement, alcohol-specific rules, parents' articulation of messages about non-use of alcohol and parental monitoring. Predictors of alcohol initiation cited by the researchers were siblings drinking alcohol, adults drinking at home, conflict within the home, friends' parents providing alcohol, and lack of parental monitoring; stress and family environment trauma increased the likelihood of alcohol initiation by age fourteen. Identified predictions of reduced alcohol use were youth drinking with parents, rather than drinking with peers, religiosity in African-American families, native language spoken at home in non-English speaking families, and parent knowledge of child's whereabouts, especially after school. Cited predictors of increased alcohol use were access to alcohol in the home, parent provision of alcohol, and availability of social sources of alcohol.

Recommendations included in the published research by one of the authors addressed a need for more contemporary theories of families in the drug and alcohol literature, and the majority of authors emphasized an increase in parental awareness of alcohol risk behaviors for adolescents. Most studies stressed the important role parents play in alcohol use by teens and call for prevention measures directed at parents of young teens. Current articles cite the recent increases in parental provision of alcohol for teens, and the need for educational programs addressing the risks of underage drinking to provide clear messages to parents. A majority of researchers reported that parents play a significant role in young teens' lives and parent alcohol-related communication and monitoring should be emphasized in prevention campaigns regarding underage drinking.

Most of the studies reviewed involved the two-parent family; and little research was found on the single-parent home. Research on the parent underestimation of teen alcohol use provided little insight into how parent perceptions could be changed and why parents are unable to realize underage drinking may be happening in their home. Most of the articles do focus on protective measures to prevent underage drinking initiation. However, few studies involved qualitative methodology with teens to determine how these protective measures are internalized by youth.

## Parents Factor Annotated Bibliography

Bahr, S., Hoffman, J., & Yang, X. (2005). Parental and peer influences on the risk of adolescent drug use. *The Journal of Primary Prevention, 26*, 529-551.

*This study estimates the effects of peers and family on adolescent drug use (includes alcohol and tobacco) self-reports with 7-12 graders (n=4230) using a binomial regression. Results found a relatively small statistically significant difference for the influence of parental monitoring, and attachment to both mother and/or father. Peer drug use had strong effects on adolescent drug use.*

Barker, J., & Hunt, G. (2004). Representations of family: A review of the alcohol and drug literature. *International Journal of Drug Policy, 15*, 347-356.

*Researchers reviewed drug and alcohol literature and how the family has been represented in the literature. Reviews of studies based in the U.S. find that family is the locus of both alcohol problems and the solutions. Three aspects of family from a structured-functional perspective are found to predict or created youth "at-risk" for adopting substance abuse: family structure, family sentiment and family activity. The authors encourage contemporary theories of families in the alcohol and drug literature.*

Byrnes, H, Chen, M-J., Miller, B., & Maguin, E. (2007). The relative importance of mothers' and youth's neighborhood perceptions for youth alcohol use and delinquency. *Journal of Youth Adolescence, 36*, 649-659.

*Study examines youths' and mothers' neighborhood perceptions concerning youth delinquency and alcohol use. The sample (n=499) of youth (ages 10-16) and mother dyads findings suggest that youth perceptions are better indicators of youth behavior than mothers' perceptions of neighborhood problems. Results indicated that teen activities in the neighborhood would be better indicators of neighborhood risk; however, neither youth nor maternal neighborhood perceptions were associated with alcohol use by youth.*

Ciairano, S., Kliwer, W., Bonino, S., & Bosmo, H. (2008). Parenting and adolescent well-being in two European countries. *Adolescence, 43*, 99-117.

*This comparative study of students age 15-19 in Italy (n=391) and the Netherlands (n=373) examined t relationships with parents and the effects of culture in comparison with American adolescent research. Research questions examined parent control and teen age and effect on adolescent adjustment cross-culturally. The research found that parent control hindered Dutch males; however, Italian males and Dutch females had higher expectations to succeed.*

Coffelt, N., Forehand, R, Olson, A., Jones, D., Gaffney, C., & Zens, M. (2006). A longitudinal examination of the link between parent alcohol problems and youth drinking: The moderating roles of parent and child gender. *Addictive Behaviors, 31*, 593-605.



*This study examines the effects of parental and maternal alcohol problems of the drinking behavior of adolescents over a 3-year period (n=695) and the moderator of gender from the Dartmouth Prevention Project. Baseline began with children in 5-6<sup>th</sup> grades, and during the final wave all youth were in 8-9<sup>th</sup> grades. Hypothesizing that both paternal and maternal alcohol problem would be associated with greater adolescent alcohol use, researchers found significance for maternal use and acceptable levels for paternal use. Results showed that maternal alcohol problems are associated with increased likelihood of early adolescent alcohol use and paternal alcohol problems are associated only with alcohol use for girls.*

Donovan, J., & Molina, B. (2008). Children's introduction to alcohol use: Sips and tastes. *Alcoholism: Clinical and Experimental Research, 32*, 108-119.

*The research examines early experience with alcohol in a sample of 8- 10 years old (n=452), with computer assisted surveys. Predictors of child sipping/tasting would reflect child's prescription of parental approval and modeling of alcohol use within the family. Results found that African-American children were less likely than white children to be sippers; neither gender nor mothers' education related to sipping status and most sipping was done in the family context, usually for a celebration or religious observance.*

Dube, S., Miller, J., Brown, D., Giles, W., Felitti, V, Dong, M., & Anda, R. (2006). Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *Journal of Adolescent Health, 38*, 444.e1-10.

*The study examines the relationship of adverse childhood experiences (ACE) and likelihood of ever drinking alcohol and the age at initiating alcohol use of (n=8417) adult Health Maintenance Organization members over age 19. All questions about ACE pertained to youth age <18. Results indicate an increase in the ACE score increased the likelihood of alcohol initiation by age 14 due to family environment trauma and stressors, and the prevalence for ever drinking was 89%.*

Eisenberg, M., Neumark-Sztainer, D., Fulerson, J., & Story, M. (In Press). Family meals and substance use: Is there a long-term protective association? *Journal of Adolescent Health.*

*This longitudinal study assessed associations of family meal patterns and adolescent substance abuse in a survey in 1998 (mean age 12.8) and by mail 2003 (mean age 17.2) in Minnesota public schools (n=806). Results showed a protective effect for substance abuse females when regular family meals (baseline 5 or more) than for those females who did not have regular family meals and no significant associations were found for males.*

Engels, R., van der Vorst, H., Dekovie, M., & Meeus, W. (2007). Correspondence in collateral and self-reports on alcohol consumption: A within family analysis. *Addictive Behaviors, 32*, 1016-1030.

*This study used a full family design to test degree of the parents and children correspondence on each other's quantity and frequency of alcohol consumption. Data was used from the longitudinal survey "Family and Health" which examines the socialization process for various health behaviors of adolescence. Dutch families with at least two children ages 13-16 completed questionnaires (n=428) and were interviewed at home. Results found that children underestimate parent's alcohol use, that parents engagement of their children are low and parents under-report adolescent alcohol use. Most parents assumed their children were abstaining from alcohol or drinking less than was the case, especially when the child was younger.*

Fisher, Miles, I, Austin. S, Camargo, C., & Colditz, G. (2007). Predictors of initiation of alcohol use among US adolescents: Findings from a prospective cohort study. *Archives of Pediatrics & Adolescent Medicine*, 161, 959-966.

*Self Report questionnaires (AEQ-A) were given to (n=5511) participants ages 11-18 of the Growing Up Today study of adolescent alcohol initiation and binge drinking. A protective effect was found among girls for eating family dinner every day. Among boys, greater athletic self-esteem was predictive of alcohol initiation, while for girls social self-esteem was predictive of alcohol initiation. Other predictors included presence of an adult drinking in the home, peer drinking and sibling drinking was positively associated with binge drinking among girls.*

Foley, K., Altman, D., Durant, R., & Wolfson, M. (2004). Adults' approval and adolescents' alcohol use. *Journal of Adolescent Health*, 34, 17-26.

*Using existing youth survey data from the National Evaluation of the Enforcing Underage Drinking Laws Program, this study examined adults' approval of adolescents' alcohol use among white, black and Latino youth. Results found that youth drinking with their parents drank fewer drinks, and youth who reported that a parent or friend's parent provided alcohol at a party consumed more drinks and was twice as likely to have engaged in binge drinking in the last 30 days. Only 1 in 7 black youth reported attending a party where parents or friends' parent provided alcohol within the last year compared with 1 in 4 for both white and Latino youth. Some evidence existed that religiosity in the black families was a strong predictor of reduction in alcohol use by youth. Little difference was found in adult approval among ethnicity, demonstrated by easy access to alcohol in the home or refraining from discipline if a minor was caught drinking.*

Hearst, M., Fulkerson, J., Maldonado-Molina. M., Perry, C., & Komro, K. (2007). Who needs liquor stores when parents will do? The importance of social sources of alcohol among young urban teens. *Preventive Medicine*, 44, 471-476.

*This article examined data from student participants aged 11-14 over a four- year period, half of which were African American, concerning youth access to alcohol. A variety of response options including commercial sources (bar, liquor store, convenience store, gas station and grocery store) were collapsed into one category due to low frequencies (< 2%) in each category. The*

*findings indicate that commercial sources are not primary outlets for youth access, but that they increase in importance as youth age. Youth reported that social sources of alcohol such as their homes, friend's homes or other youth are the most prevalent source over time. Parents were the primary source of alcohol, but their prominence significantly decreased over time. Taking alcohol from home, and getting alcohol from other adults, individuals under age 21, and commercial sources significantly increased as sources of alcohol over time. Males were significantly more likely than females to get alcohol from commercial sources and friends' parents.*

Latendresse S., Rose, R. Viken, R., Pulkkinen, L., Kaprio, J., & Dick, D. (2008). Parenting mechanisms in links between parents' and adolescents' alcohol use behaviors. *Alcoholism: Clinical and Experimental Research*, 32, 322-330.

*The authors examined links between parental substance abuse and adolescent's future alcohol use. Parental socialization practices affect the alcohol use behaviors by adolescents, (Warmth, autonomy granting, engagement/involvement = decreased risk), (Conflict = increased risk.) Surveys from twins and their parents (n=4713) examined parent alcohol use and parenting practices (age 14 and 17 ½). Perceived parental monitoring was associated with less-frequent intoxication for adolescents at both ages but with less frequent use only at 14. Perceived parental discipline was positively linked with adolescent drinking behaviors only at 17½. Parental socialization plays an indirect role in transmission of normative alcohol related behaviors both in the general parental environment and in some specific parenting practices. This mediating role of parent decreases between early and later adolescent as their peers increasingly socialize adolescents.*

Lindsay, G., Merrill, R., Owens, A., & Barleen, N. (2008). Parenting manuals on underage drinking: Differences between alcohol industry and non-industry publications. *American Journal of Health Education*, 39, 130-137.

*Evaluating parent alcohol publications, the researchers provided a content analysis of "talking to your child about drinking" manuals prepared by the alcohol industry (2) and non-industry (2). Results found that industry manuals relating why adolescents should not drink focus on issues concerning drinking and driving and illegal alcohol consumption (78%) while non-industry mention other issues related to health issues and adolescent alcohol use (82%). Differences were obvious in appearance of sensitive issues such as violence and physical and mental health concerning alcohol appearing 71.3 times greater in non-industry manuals. Overall, the study supports the idea that two of the largest American beer companies (Anheuser-Bush and Miller Brewing Company) ignore their role and avoid topics that would encourage public health interventions as a solution to adolescent alcohol consumption. The two non-industry publications (National Council on Alcoholism and Drug Dependence and the Department of Health and Human Services) provided a broader and more in-depth understanding of alcohol-related risks.*

Komro, K., Maldonado-Molina, M., Tobler, A., Bonds, J., & Muller, K. (2007). Effects of home access and availability of alcohol on young adolescents' alcohol use. *Addiction, 102*, 1597-1608.

*Data used from a longitudinal study on alcohol use by young adolescents examined the effect of parental provisions of alcohol on adolescents' alcohol use and intention. The subset for the study (n=1388) was white, black and Latino students in grades 6-8<sup>th</sup> and their parents. Administration of the student survey occurred each year in the spring of 2002-2005 and parents were surveyed in the fall of 2002. Results provided evidence that parent provision and greater access of alcohol in the home increased alcohol used by adolescents over time; thus, parents play an important role in prevention.*

Madon, S., Gyll, M., Spoth, R., Cross, S., & Hilbert, S. (2003). The self-fulfilling influence of mother expectations on children's underage drinking. *Journal of Personality and Social Psychology, 84*, 1188-1205.

*This research examined mothers' expectations about children's drinking behavior influence on future alcohol use through self-fulfilling prophecies and the effect on child self-esteem, and family social class. Longitudinal survey data from mother-child dyads (n=505) in the Capable Families and Youth Study of 7<sup>th</sup> graders and their mothers, which included an 18 month follow-up. Results found that mother's expectations that overestimated the child's future alcohol use predicted greater increases in future alcohol use. There was no moderation of social class except that parental education exhibited a negative relationship to future alcohol use, and mother's expectancies of child's future alcohol use were stronger among children with higher self-esteem.*

McGillicuddy N., Rychtarik, R., Morsheimer, E., & Burke-Storer, M. (2007). Agreement between parent and adolescent reports of adolescent substance use. *Journal of Child & Adolescent Substance Abuse, 16*, 59-78.

*This study examined the correspondence between parents' and adolescents' substance use in a population of parents concerned about or experiencing problems with their child's substance abuse. Parents and adolescents (n=75) were interviewed separately regarding teens recent substance abuse; 76% of teens were not in treatment and 24% were in treatment. Results found that parents of younger adolescents are more likely to under-estimate substance abuse, and that lack of parental monitoring, and poorer psychological functioning of adults increased discrepancies in parent-child report of substance abuse.*

Mogro-Wilson, C. (2008). The influence of parental warmth and control on Latino adolescent alcohol use. *Hispanic Journal of Behavioral Sciences, 30*, 89-105.

*The data used for this study was from the National Longitudinal Study of Adolescent Health survey (n=16044) of students in grades 7<sup>th</sup> through 12<sup>th</sup> in 1994-1995. Results of the research question on acculturation in Latino families and adolescent alcohol use found an association between an increase in parental control and a decrease in adolescent alcohol use. Significant*

*effects were found for language spoken in the home. If English, rather than their native language were spoken at home, parental control decreased.*

O'Donnell, L., Stueve, A., Duran, R., Myint-U, A., Agronick, G., Doval, A., et al. (2008). Parenting practices, parents' underestimation of daughters' risks, and alcohol and sexual behaviors of urban girls. *Journal of Adolescent Health, 42*, 496-502.

*This study examined parent perceived estimation of risk by daughters aged under age 13. In 2006, a survey of 771 six-graders, and telephone interviews of their primary caregiver with 92% (n= 709. Results found that parents substantially underestimate risk behaviors (alcohol and sexual behaviors) of their daughters, also, when parents underestimate risk, daughters report there are fewer rules, less parental oversight and reduced communication, thus indicating a need for parent education and early prevention.*

Omatseye, B. (2007). The adolescent quest for autonomy: Renegotiating a cordial relationship. *The College Student Journal, 41*, 623-629.

*The author's exploration of the adolescent quest for autonomy defines this period as a transitional period varying from culture to culture, and a time of independence from parents. Adolescent autonomous activities range from mode of dress to sex and abuse of drugs, alcohol and tobacco; youth they are particularly vulnerable to the allure of these factors, for it fills them with a sense of independence. Most adolescents view alcohol use as an 'adult' thing, and they are usually susceptible to their peer group. The author calls for educational reform efforts to focus on adolescents' social and personal needs and for schools to take an increased role in both sex education and drug and alcohol abuse education.*

Schinke, S., Fang, L & Cole, K. (In Press). Substance use among early adolescent girls: Risk and protective factors. *Journal of Adolescent Health.*

*This study surveyed participants (n=781) in New York City, which included adolescent girls and their mothers. Mean age of girls was 12.6 years and three-fourth of the sample were African-American or Latino. Results found that 40.6% of the adolescent girls reported drinking alcohol and half of the girls' mothers were single parents. Findings suggest that where adolescent girls go after school, who their friends are, what their mothers know about their whereabouts and how well the mother articulates message about non-use are associated with girls' use of alcohol.*

van der Vorst, H., Engels, R., Meeus, W., & Deković, M. (2006). The impact of alcohol-specific rules, parental norms about early drinking and parental alcohol use on adolescents' drinking behavior. *Journal of Child Psychology and Psychiatry 47*, 1299–1306.

*This study examined longitudinal data collected from 416 families consisting of two parents and two adolescents (aged 13 to 16 years). Results of structural equation modeling show that having clear rules decreases the likelihood of drinking in adolescence. However, longitudinally,*

*alcohol-specific rules have only an indirect effect on adolescents' alcohol use, namely through earlier drinking. Analyses focusing on explaining the onset of drinking revealed that having strict rules was related to the postponement of drinking initiation of older and younger adolescents. Further, parental norms about adolescents' early drinking and parental alcohol use were associated with having alcohol-specific rules. Parental norms were also related to adolescents' alcohol use. The authors report that this study is one of the first using a full family design to provide insight into the role of alcohol-specific rules on adolescents' drinking. It was shown that having strict rules is related to postponement of drinking, and that having alcohol-specific rules depends on other factors, thus underlining the complexity of the influence of parenting on the development of adolescents' alcohol use.*

Watkins, J., Howard-Barr E., Moore, M. & Werch, C. (2006). The mediating role of adolescent self-efficacy in the relationship between parental practices and adolescent alcohol use. *Journal of Adolescent Health, 38*, 448-450.

*This study was an investigation of 30-day alcohol use, parental practices and self-efficacy and reduced alcohol use as part of an alcohol prevention study in 2002. Ninth graders (n=335) and 11<sup>th</sup> graders (n=269) using the Youth Alcohol and Health Survey, a self-report instrument. Results showed only 'parental monitoring' were significantly associated with lower 30-day use. Youth self-efficacy provided a mediating role between adolescents and parents.*

Weiser, T. (2002). The American Dependency Conflict: Continuities and discontinuities in behavior and values of culture-cultural parents and their children. *Ethos, 29*, 271-295.

*The author examines the cultural evolution of the family comparing counter-cultural (n=205) families from the 3<sup>rd</sup> trimester of pregnancy, until the child was an adolescent compared to a conventional family comparison group (n=51). Results found that although content of what parents said to their children and what they provided reflected their counter cultural values, the styles and setting of interactions were not different from the comparison families. Both groups presented examples of the American dependency conflicts (relatively small households and interaction with peers, near in-age), ideals that the counter-cultural generation had revolted against in their youth.*

## Peers Factor Summary

The literature review of the role of peers in the culture of teen drinking resulted in 23 articles summarized from 2003 to 2008. Each of the studies that tested the link between peer use and adolescent use found strong relationships, as adolescent alcohol outcomes (alcohol use initiation and the quantity or frequency of consumption) were predicted by or related to their friends' and their larger social network's alcohol outcomes, both cross-sectionally (assessed at one time point) and longitudinally (assessed across numerous time points). Around a quarter of the studies moved their investigations a step further to investigate the process by which this similarity in alcohol behaviors occurs in adolescents, and generally study peer influence, peer selection or how the two processes may interact. Researchers studying peer influence theories assert that adolescent use is initiated or continued to match that of their peers, and describes it as an adolescent socialization process. Researchers studying peer selection theories assert that adolescents seek relationships with peers and peer networks according to desired behaviors (e.g., alcohol consumption). Two studies looking at both processes found support for both influence and selection independently.

Moderators of these relationships, such as age, gender and ethnicity, also come into play and are receiving attention. Most of the studies identified found that adolescent alcohol consumption increases with age from middle to high school. For example, in one study of varying ages of peer groups, older teens drank more than younger teens, and if younger teens aspired to fit in or gain status in the older peers' groups, they increased their drinking to match their older peers. This relationship with age and peer influence is similar to six studies that found lower-status teens drinking more than higher-status teens, presumably to gain acceptance with higher-status peers. Additionally, three studies found that Caucasian adolescents consume alcohol at higher levels of African-American or Hispanic adolescents. These differences are important when looking at the ethnic composition of teen peer groups, with one study finding that the greater degree of Caucasian peer group makeup predicted higher alcohol consumption in Hispanic youth. In terms of gender, various gender difference relationships have been found in the relationship between peer influence and teen drinking. For example, one study found peer influence on teen drunkenness to be reciprocal in same sex dyads, but with opposite sex dyads, females would mirror male consumption levels.

Recommendations from the articles about how to address adolescent alcohol consumption from the peer influence and selection literature centers on group-level intervention with like-minded and behaviorally similar peers or social norm campaigns. Unfortunately, a drawback of the group-level focus cited by the research studies is the notion of iatrogenesis, or the fact that group-level work with peers can contribute to increased consumption and stronger bonds surrounding increased alcohol use.

There are a few notable gaps in the literature on the role of peers in the culture of adolescent alcohol consumption regarding the positive role of peers, moderators of the peer drinking-adolescent drinking relationship, level of analysis (i.e., individual or group level investigations) and type of study (i.e., quantitative or qualitative). The majority of studies do not address the

protective or resilient role of peers in curbing adolescent alcohol consumption. Arguably, it is quite logical that if drinking peers can influence adolescent drinking, lesser- or non-drinking peers can influence lower levels of consumption or non-drinking behaviors. While a group of studies addresses the role of demographic differences in their participants, many use statistical methods to control for the effects of demographic variables instead of looking at the contribution they make in the role of peers in teen drinking. In addition, studies looking at adolescents individually or studying the social networks of adolescents as a group tend to overlook the role of the individual and the group. By far, quantitative studies are more prevalent than qualitative studies on the role of peers. Thus, few studies look at both the negative and positive roles of peers, address the individual, peer group and other contextual levels of analysis, pay attention to demographic variation and conduct qualitative investigations.



## Peers Factor Annotated Bibliography

Barnow, S., Schultz, G., Lucht, M., Ulrich, I., Ulrich, W. P., & Freyberger, H. J. (2004). Do alcohol expectancies and peer delinquency/substance use mediate the relationship between impulsivity and drinking behavior in adolescence? *Alcohol and Alcoholism, 39*, 213-219.

*A group of 147 11-18 year old adolescents (21 of whom were seeking outpatient addiction treatment) completed an initial survey on externalizing behaviors (aggression and delinquency), peer delinquency (friends' use and criminal involvement), and a follow-up interview and survey 1 year later on alcohol consumption, alcohol use disorder, and alcohol outcome expectancies. Controlling for family history of alcoholism, age and sex, researchers found that the relationship between externalizing behaviors and alcohol use was explained by peer delinquency/substance use and positive alcohol expectancies. In addition, externalizing behaviors, alcohol expectancies, peer delinquency/substance use and alcohol consumption were significantly interrelated.*

Bot, S. M., Engels, R. C. M. E., Knibbe, R. A., & Meeus, W. H. J. (2005). Friend's drinking behaviour and adolescent alcohol consumption: The moderating role of friendship characteristics. *Addictive Behaviors, 30*, 929-947.

*A total of 1276 10-14 year old Netherlands children and their best friends completed in-school measures on frequency and location of alcohol consumption, best friend nomination, best friendship reciprocity, and sociometric status difference (based on others' best friend nominations). They found that friends' alcohol consumption exerts influence in the same time point and at later time points. Additionally, the degree of the longitudinal influence depended on friendship characteristics: higher status friends and those who did not reciprocate friendships were the most influential in adolescent drinking behaviors.*

Cavanagh, S. E. (2007). Peers, drinking, and the assimilation of Mexican American youth. *Sociological Perspectives, 50*, 393-416.

*A group of 1034 Mexican American 7-12<sup>th</sup> graders from the National Longitudinal Study of Adolescent Health completed an in-school survey on drinking, immigrant status, friendship group structure (ethnic composition and generational status), and friendship group climate (friends' substance use). Control variables were age, gender, family structure, parent education and school ethnic composition. Researchers found that Mexican-born youth were less likely to drink or binge compared to those whose grandparents or older ancestors were Mexican-born, demonstrating a generational immigrant status effect. They also determined that second generation youth with drinking and smoking friends and higher proportions of White friends were the most likely to binge drink.*

Cleveland, H. H., & Wiebe, R. P. (2003). The moderation of adolescent-to-peer similarity in tobacco and alcohol use by school levels of substance use. *Child Development, 74*, 279-291.

*Using 1994-1995 in-school data from the National Longitudinal Study of Adolescent Health, 9615 7-12<sup>th</sup> graders completed measures on alcohol consumption frequency, peer alcohol consumption frequency, and school-level aggregated alcohol consumption frequency (with the respondents' and peers' data excluded). They found that peer alcohol use predicted individual use and adolescent-peer consumption similarities were greater in schools with higher consumption levels.*

Cohen, G. L., & Prinstein, M. J. (2006). Peer contagion of aggression and health risk behavior among adolescent males: An experimental investigation of effects on public conduct and private attitudes. *Child Development, 77*, 967-983.

*A group of 43 White 11<sup>th</sup> grade males pre-designated as average in reputation and preferential peer status (based on peer nominations) were randomly assigned to high or low status peers experimental conditions. In a simulated chat room, participants interacted with three electronic adolescents, whose status was determined by selecting low or high status peers as best friends among the electronic adolescents, whose nominations and hobbies were visible to the actual participants. The males answered questions on public conformity to aggressive/health risk behavior (physical aggression, teasing, vandalism and substance use), private acceptance of aggressive/health risk behavior and actual aggressive behavior based on scenarios in each category. Participants answered after all of the electronic adolescents, and were asked to make deciding votes on actual behavior. Participants also completed measures on heavy episodic alcohol consumption among other risk behaviors and mental health outcomes. Researchers found that both interactions with high and low status peers predicted conformity towards and acceptance of substance use and aggression despite variations in pre-existing risky behavior.*

Coleman, L., & Cater, S. (2005). Underage 'binge' drinking: A qualitative study into motivations and outcomes. *Drugs: Education, Prevention and Policy, 12*, 125-136.

*A total of 64 14 to 17 year old British adolescents were interviewed about their motivations for self-reported drunkenness and its negative outcomes. Generally, alcohol consumption was considered a 'highly pleasurable experience.' The most common reported motivation was social facilitation, or allowing increased confidence in social groups, creating closer friendships, and providing opportunity for sexual interaction. Peers were also commonly reported motivators, with varying levels of influence from 'guidance' to 'pressure.'*

Crawford, L. A., & Novak, K. B. (2008). Parent-child relations and peer associations as mediators of the family structure-substance use relationship. *Journal of Family Issues, 29*, 155-184.

*As part of the National Education Longitudinal Survey of 1988, 10,704 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders were assessed in 1988, 1990 and 1992 to follow the influence of family composition, peer relations, and frequency of alcohol consumption. Researchers found that the frequency of visits to a local hangout or generally driving around and the importance of willingness to party among peers positively predicted 10<sup>th</sup> and 12<sup>th</sup> grade alcohol use. Peer relations more strongly predicted 10<sup>th</sup> and 12<sup>th</sup> grade alcohol use than parental attachment and parenting style.*

D'Amico, E. J., & McCarthy, D. M. (2006). Escalation and initiation of younger adolescents' substance use: The impact of perceived peer use. *Journal of Adolescent Health, 39*, 481-497.

*A group of 974 middle schoolers responded to two surveys in one academic year on lifetime and 30-day substance use (including initiation) and estimated peer use. They found that alcohol use increased with age, but did not vary by gender. Controlling for ethnicity, gender, grade and personal use, perceived peer use at the first time point predicted individual use and individual onset at the second time point.*

Dick, D. M., Pagan, J. L., Holliday, C., Viken, R., Pulkkinen, L., Kaprio, J., et al. (2007). Gender differences in friends' influence on adolescent drinking: A genetic epidemiological study. *Alcoholism: Clinical and Experimental Research, 31*, 2012-2019.

*A total of 4,709 14 year old Finnish participants completed a second round of health and behavior surveys at age 14 as part of FinnTwin12, a longitudinal twin-family study. Participants were asked about their alcohol consumption frequency, peer alcohol consumption frequency and the number of drinkers in their social network, with a create variable for similarity in peer and individual alcohol consumption. They found that having drinking friends made it over 6 times more likely that they would report individual use. This relationship was also mediated in girls by environmental pathways; however, the types of environmental influences that changed this relationship were not spelled out.*

Ennett, S. T., Bauman, K. E., Hussong, A., Faris, R., Foshee, V. A., & Cai, L. (2006). The peer context of adolescent substance use: Findings from social network analysis. *Journal of Research on Adolescence, 16*, 159-186.

*A group of 5,104 middle schoolers were assessed every 6 months for 30 months on their past 3 month alcohol consumption and on three domains of their peer relationships: social embeddedness (friendship reciprocity, network density, social position and number of out-of-network friends), social status (popularity and network centrality), and social proximity to substance use (best friend use, number of users in network, social distance to nearest user). Self- and other-reported network attributes predicted individual use, such that characteristics of peer relationships were relevant to recent alcohol use. Adolescents closer to drinkers, less embedded in the network and with greater status were more likely to drink alcohol, especially with increasing age.*

Galliher, R. V., Evans, C. M., & Weiser, D. (2007). Social and individual predictors of substance use for Native American youth. *Journal of Child and Adolescent Substance Abuse, 16*, 1-16.

*In a study of 84 Native American 9 to 11 year olds, parents completed survey questions on substance use and children completed survey questions on parent involvement, school bonding,*

*peer social skills, self-efficacy, refusal skills and lifetime substance use. Researchers found that self-efficacy, a measure of child resiliency, was predicted by peer social skills, a measure of socialization sources, which in turn predicted lower levels of substance use. However, refusal skills were not predicted by peer social skills.*

Gaughan, M. (2006). The gender structure of adolescent peer influence on drinking. *Journal of Health and Social Behavior*, 47, 47-61.

*A total of 2,980 friendship dyads from the National Longitudinal Study of Adolescent Health completed measures on family closeness, religiosity, school problems, school alienation and past year drunkenness. The researcher found that same-sex friends mutually influenced each others' drunkenness, but males exerted more influence in opposite-sex best friendships, so that females were influenced by male drinking patterns. Females were also more affected by background measures of risk (school problems, school alienation) and resilience (family closeness, religiosity).*

Henry, D. B., & Kobus, K. (2007). Early adolescent social networks and substance use. *Journal of Early Adolescence*, 27, 346-362.

*A group of 1,119 6<sup>th</sup> graders from the Metropolitan Area Child Study (a 1990-1997 Chicago-area elementary in-school data collection) nominated peers and completed measures on past 6 month substance use. Students in each classroom were categorized as social network members (at least 2 ties to others identified as friends), liaisons (at least 2 bidirectional dyadic ties that were not connected to one another) or isolates (one bidirectional dyadic tie). Controlling for gender, ethnicity and location, they found that liaisons were more likely to drink than isolates, however, members were not significantly more likely to drink than liaisons or isolates. They note that liaisons have greater chances of associating with substance users by being part of numerous social networks, and their roles as non-members may be more stressor, implying a link between stress and alcohol use.*

Killeya-Jones, L. A., Nakajimia, R., & Constanzo, P. R. (2007). Peer standing and substance use in early adolescent grade level networks: A short-term longitudinal study. *Prevention Science*, 8, 11-23.

*In a survey of 156 7<sup>th</sup> graders, adolescents completed measures on past month and lifetime alcohol use and provided network nominations to determine levels of individual and group centrality, social impact, social preference and perceived popularity. Graphing the networks provided measures of centrality, density, distance, and clustering. These methods were conducted in the fall of a school year and the following spring. Researchers found evidence for a person hypothesis, that student leaders were likely to use substances as a novel behavior, but more likely to remain in a elevated standing than to continue substance use throughout the year as the behavior became less novel. They note that substance users had more impact and higher social status than non-users in the fall, but as the behavior became more normative, spring users were less likely to have high social status, and those with high social status in the fall remained*

high despite some decreases in substance use. Limitations of the results stem from low prevalence of substance use and, if found, on an intermittent basis.

Ludden, A. B., & Exxles, J. S. (2007). Psychosocial, motivational, and contextual profiles of youth reporting different patterns of substance use during adolescence. *Journal of Research on Adolescence, 17*, 51-88.

*A group of 733 8<sup>th</sup> and 11<sup>th</sup> graders were surveyed in 1993 and 1996 on the frequency of alcohol consumption, academic achievement, school misbehavior, depression, self-esteem, positive self-regard, academic motivation, parent interaction, parent expectations, friends' school attitudes, friends' avoidance of school misbehavior and friends' college plans. Researchers created four profiles of drinkers: users, initiators, desistors and nonusers. They found that users were more likely to have risky profiles, but also shared high academic achievement with nonusers. The most prevalent group of users report high academic achievement, social reasons for school attendance and having friends of high academic achievement.*

Miller-Johnson, S., Costanzo, P. R., Coie, J. D., Rose, M. R., Browne, D. C., & Jonson, C. (2003). Peer social structure and risk-taking behaviors among African American early adolescents. *Journal of Youth and Adolescence, 32*, 375-384.

*In a survey of 647 African-American 7<sup>th</sup> graders, students completed measures of peer status, deviant peer involvement, peer group leadership and substance use involvement. They assessed two types of leadership, conventional leaders, or those who are in more conventional, formal positions of authority aligning with adult regulation, and unconventional leaders, or those that are natural leaders who set trends in peer behavioral norms and promote a sense of independence from adult regulation in what is commonly labeled deviant or antiestablishment. They found that 'controversial status' youth, or those both highly liked and disliked, were most likely to be involved in deviant peer groups, drink more than other status youth and were unconventional peer leaders.*

Nasim, A., Belgrave, F. Z., Jagers, R. J., Wilson, K. D., & Owens, K. (2007). The moderating effects of culture on peer deviance and alcohol use among high risk African-American adolescents. *Journal of Drug Education, 37*, 335-363.

*A group of 114 high-risk African American 13-20 year olds completed a questionnaire covering age of alcohol initiation, lifetime alcohol use, past 30 day alcohol use, past 30 day heavy alcohol use, peer risk behavior, ethnic identity, africentrism, and religiosity. Researchers found that individuals with greater amounts of peers demonstrating risk behaviors were more likely to initiate alcohol consumption at an earlier age, and have greater lifetime, 30 day and heavy alcohol use. These effects were decreased for those with greater protective factors (ethnic identity, africentrism and religiosity), demonstrating the protective nature of some culture aspects.*

Poelen, E. A. P., Engels, R. C. M. E., van der Vorst, H., Scholte, R. H. J., & Vermulst, A. A. (2007). Best friends and alcohol consumption in adolescence: A within-family analysis. *Drug and Alcohol Dependence*, 88, 163-173.

*Adolescent siblings (n=416) completed survey measures at two time points one year apart on past 4 week alcohol consumption frequency and past week quantity, separating out in-home vs. out of the home and weekday vs. weekend quantity. Adolescents also completed measures on their personality and their friends' drinking, popularity and friendship quality. In addition, 301 of their friends were queried on their alcohol consumption to match with individual reports. Their goal was to test whether the drinking status of best friends, siblings and siblings' best friends predicted individual drinking, with expected differences regarding gender, friend popularity, friendship quality, personality and drinking status at time 1. They found strong links between individual and best friend drinking in one time point and over one year for both older and younger siblings. However, siblings and siblings best friends' drinking did not predict adolescent drinking over time and moderating variables (gender, friend popularity, friendship quality, personality and drinking status at the first time point) had no effect on the link between adolescent and peer drinking over time.*

Radin, S. M., Neighbors, C., Walker, P. S., Walker, R. D., Marlatt, G. A., & Larimer, M. (2006). The changing influences of self-worth and peer deviance on drinking problems in urban American Indian adolescents. *Psychology of Addictive Behaviors*, 20, 161-170.

*In 6 annual interviews, 217 American Indian adolescents participated from when they were on average 14 years old to 20 years old. The interviews were on alcohol-related problems, peer substance use, peer delinquent behaviors and global self-worth. Alcohol problems and peer deviance were highest for 16 and 17 year old teens. They also found that the relationship between peer deviance and alcohol-related problems in 13 to 16 year old teens was explained by their self-worth, but for teens over 16, peer deviance directly predicted alcohol-related problems.*

Scholte, R. H. J., Poelen, E. A. P., Willemsen, G., Boomsma, D. I., & Engels, R. C. M. E. (2008). Relative risks of adolescent and young adult alcohol use: The role of drinking fathers, mothers, siblings and friends. *Addictive Behaviors*, 33, 1-14.

*As part of the Netherlands Twin Register, 3,760 twins aged 13-22 completed surveys in 2-3 year intervals on frequency of alcohol consumption, non-twin sibling drinking frequency and friend drinking regularity. Self-report drinking data was also provided from biological mothers and fathers. Twins were divided into three age groups, 12-15, 16-20 and 21-25. Regular drinking for twins, siblings and peers was defined as drinking a few times per month; for parents regular drinking was defined as drinking a few times per week. For the 12-15 and the 16-20 year olds, regular drinking twin siblings, followed by regular drinking friends, provided the greatest relative risk of adolescent alcohol use, with regular drinking parents providing the least amount of risk. Risk of alcohol use also dramatically increased in relation to adolescents' increasing exposure to regular drinkers of any relationship.*

Simons-Morton, B., & Chen, R. S. (2006). Over time relationships between early adolescent and peer substance use. *Addictive Behaviors, 31*, 1211-1223.

*A group of 2,453 middle school students completed in-school assessments 5 times over 3 years on past year and past 30 day drinking and the number of drinking friends. Researchers found that drinking and the number of drinking friends increased linearly over time and that adolescent and peer alcohol use were significantly related in all students. They found more support for socialization theories of peer influence, in that peer use predicted adolescent use across time. They found less support for selection theories of peer influence, as adolescent use did not predict peer use for all but one of the time intervals. However, because of the one link between adolescent use and peer use in 7<sup>th</sup> and 8<sup>th</sup> graders, they determined that both peer processes were supported.*

Spijkerman, R., Van Den Eijnden, R. J. J. M., Overbeek, G., & Engels, R. C. M. E. (2007). The impact of peer and parental norms and behavior on adolescent drinking: The role of drinker prototypes. *Psychology and Health, 22*, 7-29.

*A total of 1,956 Dutch 12 to 16 year olds completed two in-school assessments one year apart on their ratings of 22 characteristics of the 'typical peer who drinks on a weekly basis' to create drinker prototypes. The adolescents' responses resulted in three drinker prototypes: well-adjusted, rebellious and cool (these prototypes were not defined). They were also asked about their frequency of drinking and binge drinking, quantity of drinking, parent drinking frequency, parent attitudes toward weekly drinking, number of best friends and friends that were drinkers, and best friends' and friends' attitudes towards weekly drinking. Researchers found that for drinkers, the relationship between peer and parent attitudes and adolescent drinking was explained by both the well-adjusted and cool drinker prototypes (the rebellious drinker prototype was excluded from analyses since it did not relate to parent and peer variables). They found that adolescents' endorsements of positive aspects of the two included drinker prototypes held longitudinally, as did their drinking behaviors. Furthermore, part of adolescents' later drinking was predicted by their endorsements of earlier prototypes.*

Urberg, K. A., Luo, Q., Pilgrim, C., & Degirmencioglu, S. M. (2003). A two-stage model of peer influence in adolescent substance use: Individual and relationship-specific differences in susceptibility to influence. *Addictive Behaviors, 28*, 1243-1256.

*In two ethnically varying school systems, adolescents in grades 6, 8 and 10 were surveyed in their schools 4 times over three years. Adolescents nominated a best friend and other friends. 'About to be' friends and closest friends were identified from their nominations. Substance use was measured with lifetime and past month use items, with use categorized into never, tried, current use, and the combination of current use and drunkenness. Peer acceptance was defined as the number of friend nominations, and friendship quality was assessed for their best friend. The researchers found that both low-risk and high-risk adolescents were equally able to join a peer context accepting of drinking, implying that peer selection is independent of social and*

*parental background. In terms of the influence of peers, they found that adolescents were more influenced by their friends if they rated their friendship quality as high and if they were highly accepted by their peers.*



## School Factor Summary

A review of the literature identified 9 articles published between the years 2003 to 2008. Most of the research used pre-existing data sources; however, a few of the studies used self-report data, and only one was a qualitative study with sixth through tenth graders. A noteworthy finding from this study was that rates of alcohol use from self-report and interviews sources were higher than those from data using existing national studies. The majority of the studies focused on student alcohol use and the relationship between academic motivation and school bonding. The overall findings from those studies suggest that those students who are academically motivated and are involved in school (school attachment) had lower alcohol use rates, and school graduation rates were reported to be lower for teens using alcohol in high school. Two of the articles examined awareness for both schoolteachers and counselors concerning adolescent alcohol use within the schools. Both studies reported that teachers and school counselors expressed the need for training in assessment and screening of alcohol use by adolescents, and reported that the drug and alcohol policies were not consistently enforced within their schools. Teachers with under five years of teaching experience were less aware of alcohol policies, and those teachers who knew the policy were apprehensive in confronting students. Virtually all of these studies deal with alcohol, tobacco and other drugs collectively rather than focus on alcohol use separately.

A few of the authors recommend increased alcohol and drug prevention at the middle school level to combat early initiation of alcohol use, and one author recommends implementing harm-reduction prevention programs in the later high school years, and to focus these programs on social relationships. Another study's author recommended clear enforcement policies to provide consistent messages regarding alcohol and drug use within the school. To increase competence for school counselors and teachers, training on intervention, assessment and screening of students with substance abuse concerns is recommended by two of the studies reviewed.

The review of the literature spotlighted the limited studies involving relationships between school and adolescent alcohol use. The studies did not specifically target intervention and prevention programs within the school setting, but rather focused on student alcohol use and the relationship between academic motivation and school bonding.

Only one study included a methodology that spoke directly with students in both individual interviews and focus groups, and most used existing data, however and nearly half of the studies examined the roles of teachers and counselors in alcohol assessment and training and school enforcement of alcohol policies.

## School Factor Annotated Bibliography

Burrow-Sanchez, J., Lopez, A., & Slagle, C. (2008). Perceived competence in addressing student substance abuse: A national survey of middle school counselors. *Journal of School Health* 78, 280-286.

*This study examines how middle school counselors (n=283) perceive their training in substance abuse. Surveys were mailed to 500 randomly selected Middle School counselors, with two follow-up mailings. Results ranked the most important areas for substance-abuse related training, and 35% of the school counselors identified assessment and screening, while 29% identified individual interventions. Overall, school counselors perceive themselves as lacking competence in specific areas of student substance abuse and want training to increase their competence in serving students who have substance abuse concerns.*

Bryant, A.L., Schulenberg, J.E., O'Malley, P.M., Bachman, J.G., & Johnston, L.D. (2003). How academic achievement, attitudes, and behaviors relate to the course of substance use during adolescence: A 6-year, multiwave national longitudinal study. *Journal of Research on Adolescence*, 13, 361-397.

*This study examined how academic experiences, attitudes, and perceptions are related to changes in substance use in a nationally representative panel of students followed from age 14 to age 20 (data used from the Monitoring the Future study). The results showed that when adolescents reported higher levels of school interest, school effort, school bonding, and college plans, they were less likely to report concurrent cigarette and alcohol use. Adolescents' perceptions of their parents' provision of school help and their peers' attitudes regarding misbehavior were associated with concurrent substance use and change in use over time. Gender differences showed that low-achieving girls, in particular those who have difficulty in school, may be at risk for increased cigarette, alcohol, and marijuana use over time.*

deKoven, A. (2007). The importance of building and maintaining trust in alcohol, tobacco, and other drug education classrooms and hurdles to open communication. *Journal of Alcohol and Drug Education*, 51, 27-54.

*The study examined the importance of trust in the classroom during instruction using both qualitative and quantitative methods with students in grades 6-8<sup>th</sup> (n=809), who had completed a section on substance abuse awareness or education program. From this total, 38 students were randomly selected for individual interviews lasting 10-25 minutes. Results found that trust was important based on the need to not get 'bad information' and the 'you ask, you are', which related to students who ask a question are perceived by other students as someone who uses alcohol or drugs. Students were sensitive to others inferring something about their life choices concerning alcohol and drugs. Overall students felt teachers could not be trusted for their ability to stymie a student's progress and fear of other student reactions prevented them from asking important questions during substance abuse education programs.*

Dowdell, E. (2006). Alcohol use, smoking and feeling unsafe: Health risk behaviors of two urban seventh grade classes. *Issues in Comprehensive Pediatric Nursing*, 29, 157-171.

*This study describes types of health risk behaviors, frequency of behaviors and age of initiation in an adolescent population (ages 11-13), using the Youth Risk Behavior Surveillance System questionnaire. Student (n=105) report of having as least one alcohol drink during the last year was 53%, and of those student 66% responded that they used alcohol at least once a month. Examining age of initiation of alcohol, 31% had their first drink between ages 11-13, 11% between ages 9-10 and 7% reported having their first drink under age 9, and African American students were more likely to use alcohol.*

Eaton, D., Forthofer, M., Zapata, L., Brown, K., Bryant, S, Bryant, C., et al. (2004). Factors related to alcohol use among 6<sup>th</sup> through 10<sup>th</sup> graders: The Sarasota County demonstration project. *Journal of School Health* 74, 95-105.

*This study assessed factors significantly associated with alcohol use with 6<sup>th</sup> to 10<sup>th</sup> graders. The methodology included focus groups, one on one interviews and surveys (n=2004). Results found that males were significantly more likely than females to report binge drinking, and rates of alcohol use increased for both boys and girls from 6<sup>th</sup> to 10<sup>th</sup> grade. Youth who lived with one parent were 1.7 times more likely to use alcohol and 1.5 times as likely to binge drink. Time youth spent after school without parent supervision increased likelihood of participation in binge drinking, and the greater number of hours youth worked at a job during school year, the more likely to use alcohol. Factors identified that influenced youth initiation of alcohol were: Parent monitoring, perception of parent approval of alcohol use, perception of alcohol use by peers, perception of accessibility of alcohol and use as social activity, perception of shaping youth appearance or image, and youth confidence in refusal skills.*

Finn, K. (2006). Patterns of alcohol and marijuana use at school. *Journal of Research on Adolescence*, 16, 69-77.

*An in-depth study of students' attitudes and behaviors concerning marijuana and alcohol use during the school day with students in grades 9-12 (n=1123), addressing prevalence use, students' perceived consequences, accessibility at school, and variation among demographic subgroups. Results found overall 63% of students reported alcohol use in the last 6 months, and 12% reported use at school. A statistically significant effect of gender was found with males reporting higher levels of alcohol and marijuana use than female students, and Hispanic students reporting higher levels than white students; black students had the overall lowest levels of reported alcohol use. Student reported alcohol (75%) and marijuana (84%) were easy to obtain at school, however many students did not appear to know the school consequences of drug use.*

Finn, K. & Williert, H. J. (2006). Alcohol and drugs in schools: Teachers' reaction to the problem. *Phi Delta Kappan*, 88, 37-41.

*Physical education and health education teachers (n=103) in middle and high schools completed questionnaires containing 64 questions about drug problems at school, and 79% reported knowing their school drug policies, however, many reported that they did not believe these policies were effective. Teachers reported (43%) apprehension in intervening when suspecting a student's drug use and 64% were weary of wrongly accusing a student, while 16% were afraid of student's reaction to accusations. Only 16% of teachers reported that their school had a teacher-training program for drug prevention.*

Henry, K. & Skater, M. (2007). *The contextual effect of school attachment on young adolescents' alcohol use, The Journal of School Health, 77, 67-74.*

*This study examined how an improvement of school climate may result in less substance abuse among students. The study involved middle school students (n=4216) from 1999 to 2003 using data from the pretest of an intervention study both at the school and community level. Results validated other recent findings that demonstrated a strong negative relationship between drug use and school attachment; however the study considered school bonding as liking the school, relationship with teachers and school performance.*

Webb, J., Moore, T., Rhatigan, D., Stewart, C., & Getz, J.G. (2007). Gender differences in the mediated relationship between alcohol use and academic motivation among late adolescents. *Journal of Orthopsychiatry, 77, 478-488.*

*This study examined the manner in which alcohol use affects academic motivation directly, and how alcohol use and academic motivation is mediated through family communication, peer relations, and depressive cognitions and gender. Students in 11<sup>th</sup> and 12<sup>th</sup> grade (n=1287) completed self-report questionnaires with multiple scales. The results show that a relationship between alcohol use and academic motivation was significant for males, but not for females. Alcohol use increases the likelihood that both males and females will engage in deviant behaviors; however, females are more likely to experience depressed cognitions. The path from alcohol use to peer relations was statistically significant for females but not for males. The authors recommend secondary prevention programs in late high school to minimize the consequences of alcohol use focusing on social relationships.*

Zimmerman, M. & Schmeelk-Cone, K. (2003). A longitudinal analysis of adolescent substance use and school motivation among African American youth. *Journal of Research on Adolescence, 13, 185-210.*

*This longitudinal study examined the link between adolescent substance abuse and school motivations in the African-American population. African-American (n=681) data was collected in five waves beginning with 9<sup>th</sup> grade, each year thereafter and one year after 12<sup>th</sup> grade, whereupon graduation rates were measured. Results found that school motivation affect marijuana use only in the early high school years whereas effects of school motivation on alcohol use appears more persistent throughout high school. Use of alcohol and marijuana*

*during high school increases the likelihood of non-completion of high school, even when given an additional year to complete graduation.*

## Sports and Leisure Factor Summary

A review of the literature of sports and leisure activities and their association with youth in American culture resulted in 21 articles published between the years 2002 and 2008. According to the literature, teen involvement in extracurricular activities appears to have a positive effect on the individual; however, involvement in sports, specifically, does not seem to be a protective factor for substance use among teens. The main protector with extracurricular activities is found with nonathletic activities. In one study, Boys and Girls Club members showed a decrease in risky behavior, and non-athletic club members were found to be less likely than non-club members to be drinkers. Involvement in prosocial activities tended to result in lower rates of alcohol use. Deviance was more likely to occur during time outside of structured activities and among adolescents with the most unstructured time available.

According to one study, self-identified “jocks” are more likely to engage in problem drinking. School-sponsored, male-dominated sports are associated with increased substance use for boys and out of school, mixed-gender sports are associated with increased risk for girls. Early sports participation (middle school) was found to be associated with later participation in sports and increased alcohol use. Despite the findings of the impact of sport participation on adolescent alcohol use, athletic involvement did seem to be a protective factor for African American youth with regard to alcohol use. Two studies on teens who are employed showed that more time in paid work is associated with heavier drinking.

Of the 21 articles reviewed, the majority discuss athletic involvement; only a few studies are based on other extracurricular activities. Another area lacking is the differences in extracurricular involvement and substance use when considering multiple demographic variables including race, socioeconomic status, religion, etc.. Only one article specifically addressed race and discussed the protective effect of sports on African American teens. Gender was the most discussed demographic variable. However, it is noted that comparisons between groups can be difficult because of the different extracurricular activities available to varied segments of the population.

Notable gaps in this section of the literature review are articles about adolescent culture and sport/leisure activities. The role that extracurricular activities play in teen culture today is not discussed in the literature. Also, a majority of the studies reviewed sought to find out who is drinking more, the gap is why they drink more.

## Sports and Leisure Factor Annotated Bibliography

Anderson-Butcher, D., Newsome, W.S., & Ferrari, T.M. (2003). Participation in boys and girls clubs and relationships to youth outcomes. *Journal of Community Psychology, 31*, 39-55.

*The purpose of this study was to gain a better understanding of Boys and Girls Club participation and how attendance is related to positive outcomes among youth. The sample was 139 youth ages 10-18. The study found that participation in the Club was related to decreased risk and problem behaviors typically associated with increasing age level. Club participation by the youth was characterized by engagement in unstructured, recreational activities as opposed to structured Club programs. Results also showed two additional motivators for participation- presence of friends at the Club and parent requirement of attendance.*

Barnes, G.M., Hoffman, J.H., Welte, J.W., Farrell, M.P., & Dintcheff, B.A. (2007). Adolescents' time use: Effects on substance use, delinquency and sexual activity. *Journal of Youth and Adolescence, 36*, 697-710.

*The sample for this study included 606 13-16 year old adolescents from Western New York. The purpose of the study was to examine the amount of time spent in various activities for their effects on heavy drinking, cigarette smoking, illicit drug use, delinquency, and sexual activity. Their research questions included how many hours adolescents spend per week in various activities (e.g. homework and extracurricular activities), what activities predict problem behaviors, and how activities and problem behaviors vary across demographic groups. Results showed that family and peer time were the most consistent predictors of all five problem behaviors, with family as a protective factor and unsupervised peer time as a risk factor. Homework time was associated with less cigarette smoking and illicit drug use but does not protect against heavy drinking. Participation in extracurricular activities and hobbies had no relationship to substance use. Sports involvement was associated with less cigarette smoking and less illicit drug use but not with less alcohol use. Work hours did not have a main effect on any of the problem behavior measures except that the more time spent in paid work, the more heavy drinking among younger adolescents. No evidence was found for a buffering effect of family time on the positive associations between unsupervised peer time and problem behaviors; peer influences are strong predictors of problem behaviors regardless of family influences.*

Bartko, W.T., & Eccles, J.S. (2003). Adolescent participation in structured and unstructured activities: A person-oriented analysis. *Journal of Youth and Adolescence, 32*, 233-241.

*The goal of this research was to identify different profiles of involvement in activities and the relationship to psychosocial indicators for the different groups. A total of 918 adolescents were classified into 11 activity domains. Results showed that participation in structured, prosocial activities was associated with positive functioning for the adolescents while the poorest*

*functioning was found among adolescents who engaged in few constructive activities. The authors note that the pattern of involvement across activity settings is tied to the differences in functioning rather than any single activity indicator. Adolescents who reported high involvement in paid work showed moderate academic and psychological functioning but relatively high involvement in problem behaviors. The analysis of involvement patterns was similar for African Americans and whites.*

Darling, N. (2005). Participation in extracurricular activities and adolescent adjustment: Cross-sectional and longitudinal findings. *Journal of Youth and Adolescence*, 34, 493-505.

*An ethnically diverse sample of adolescents (n=3,761) from 6 California schools was surveyed over a time period of 3 years. The purpose of the study was to determine the association between participation in school-based extracurricular activities and adolescent outcomes. Results showed that adolescents who participated in school-based extracurricular activities were less likely to use tobacco, marijuana, and other drugs but not alcohol than their non-participating peers. The participating youth were also more likely to perform better in school, have a more positive attitude towards it, and believe they will remain in school longer. The researchers found some evidence that the association of extracurricular activity participation with psychological adjustment is larger when youth spend more time on activities and when they experience higher levels of stress. Participation in extracurricular activities buffered adolescents from the stress of negative life events on use of tobacco, marijuana, and other drugs. The relationship between activities and substance use became stronger as adolescents spent more time in the activities.*

Eccles, J.S., Barber, B.L., Stone, M., & Hunt, J. (2003). Extracurricular activities and adolescent development. *Journal of Social Issues*, 59, 865-889.

*This article discusses the findings from a longitudinal study that began with a group of 6<sup>th</sup> graders from 10 school districts in Michigan in 1983. About 1800 youth were followed from 6<sup>th</sup> grade until they were 25-26 years old in 1996/1997. Results showed that participation in extracurricular activities during high school provided a protective context in terms of involvement in risky behaviors and a promotive context in terms of academic performance. Participation in prosocial activities predicted lower rates of increase in alcohol and drug use and participation in the performing arts had this same function for boys. Participation in sports was linked to increases in the use of alcohol but was strongly linked to positive educational and occupational outcomes. Only involvement in prosocial activities (primarily church attendance in this study) was protective against increases in alcohol and drug use and increases in skipping school.*

Eitle, D., Turner, R.J., & Eitle, T.M. (2003). The deterrence hypothesis reexamined: Sports participation and substance use among young adults. *Journal of Drug Issues*, 33, 193-222.



*This study examined the association between high school sports participation and young adult substance use using data collected from a cohort of students when they were in their preteen years and as young adults. Contrary to the deterrence hypothesis, results showed that playing high school sports did not appear to be a protective factor that lowers one's involvement in young adult alcohol or drug use. The one exception was with blacks, for whom a greater extent of high school sports participation was linked to less risk of substance use. Playing high school sports was found to be positively associated with alcohol use for white males. In summary, findings showed that playing high school sports does not insulate whites and Hispanics from illegal substance use in the future.*

Fredricks, J.A., & Eccles, J.S. (2006). Extracurricular involvement and adolescent adjustment: Impact of duration, number of activities, and breadth of participation. *Applied Developmental Science, 10*, 132-146.

*Data from the Childhood and Beyond Study, a longitudinal study of adolescent development, was used to look at the associations between a variety of measures of extracurricular participation and indicators of youth development. The sample of the study was white, middle class adolescents in grades 7-12. Results showed that for all youth, participating for more years and in a wider range of extracurricular activities was generally related to having a higher proportion of academic peers and a smaller proportion of risky peers than individuals who were not involved in structured activities. However, they found few significant relationships between extracurricular participation and lower risk behavior. The duration of participation in organized sports predicted higher alcohol use among the oldest group of adolescents. For the oldest cohort, the total number of extracurricular activities predicted school belonging, psychological adjustment, and a more positive peer context. Youth in low and high numbers of activities had relatively high scores on the risky scale when compared to adolescents in a moderate number of activities; however the overall level of risk in the sample used was very low.*

Fredricks, J.A., & Eccles, J.S. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology, 42*, 698-713.

*The data for this study comes from the Maryland Adolescent Development in Context Study. The analysis examined the relationship between participation in a range of high school extracurricular contexts and developmental outcomes in adolescence and young adulthood. Participation in organized activities during 11<sup>th</sup> grade was associated with developmental outcomes concurrently and 2 years later. The breadth of participation in 11<sup>th</sup> grade was associated with positive academic, psychological, and behavioral outcomes. Participation in both high school clubs and sports predicted academic adjustment at 11<sup>th</sup> grade. High school sport involvement predicted psychological adjustment at 11<sup>th</sup> grade. Participation in both high school sports and clubs predicted educational status 2 years later. Involvement in both high school clubs and prosocial activities predicted civic engagement 2 years later. Participation in both school clubs and sports predicted lower alcohol and marijuana use for boys only.*

Gottfredson, D.C., Gerstenblith, S.A., Soule, D.A., Womer, S.C., & Lu, S. (2004). Do after school programs reduce delinquency? *Prevention Science*, 5, 253-266.

*This study used data from an evaluation of Maryland's After School Community Grant Program to examine the effects of participation in after school programs in the school year 1999-2000 and how the programs may have affected delinquent behavior. Results showed that participation reduced delinquent behavior for middle school students but not for elementary age students. For the older youths, there were increases in intentions not to use drugs and positive peer associations. The effects of participation on delinquent behavior were greatest in the programs that incorporated a high emphasis on social skills and character development instruction and practice. No change for elementary age students could be due to the lack of emphasis on social skills and character development.*

Hansen, D.M., Larson, R.W., & Dworkin, J.B. (2003). What adolescents learn in organized youth activities: A survey of self-reported developmental experiences. *Journal of Research on Adolescence*, 13, 25-55.

*High school students (n=450) from a medium size, ethnically diverse school were surveyed about their different developmental and negative experiences in organized youth activities including extracurricular and community based activities. The researchers compared learning experiences from youth activities with experiences from academic classes and hanging out with friends. Adolescents in youth activities reported more experiences related to personal development. They reported higher rates of experiences involving goal setting, problem solving, effort and time management in youth activities. They also reported more experiences of identity exploration and reflection. The teens reported youth activities to be a frequent context for emotional learning experiences, such as learning to manage anger, anxiety, and stress. They reported more frequent experiences reflecting interpersonal development and high rates of experiences related to group process, feedback, and leadership. Youth activities had higher rates of links to the community; however the students did not report youth activities to be a more frequent context for developing relationships and understanding of diverse peers. Youth in sports experienced identity work and emotional development but reported higher rates of negative peer interaction and inappropriate adult behavior.*

Harrison, P.A., & Narayan, G. (2003). Differences in behavior, psychological factors, and environmental factors associated with participation in school sports and other activities in adolescence. *Journal of School Health*, 73, 113-120.

*Participation in school team sports, exclusively or in combination with other extracurricular activities, and its association with psychosocial functioning and healthy behavior was examined in this study. The sample included 50,168 9<sup>th</sup> grade public school students. Findings showed that participants in any type of extracurricular activity were significantly more likely than nonparticipants to exercise and consume nutritious foods, to like school and do homework, and to express positive attitudes about self, peers, teachers, and parents. The involved students were also less likely to skip school, get into fights, vandalize property, smoke cigarettes or*

*marijuana, binge drink, or have sexual intercourse. The study also found that adolescents from single parent homes were less likely to participate in either sports or other activities, and especially less likely to participate in both types of activities.*

Hoffmann, J.P. (2006). Extracurricular activities, athletic participation, and adolescent alcohol use: Gender-differentiated and school-contextual effects. *Journal of Health and Social Behavior, 47*, 275-290.

*A sample of 4,495 males and 5,398 females participated in a longitudinal study investigating the effects of extracurricular activities on alcohol use. Results showed that the main protective effect that extracurricular activities have against alcohol use is generated by participation in nonathletic activities. This effect occurs primarily among males who attend low minority schools. Among both males and females, participation in athletics is related to increasing alcohol use over time. This positive association occurs among males in schools with higher socio-economic status and females in schools with lower socio-economic status rates.*

Jacobs, J.E., Vernon, M.K., & Eccles, J.S. (2004). Relations between social self-perceptions, time use, and prosocial or problem behaviors during adolescence. *Journal of Adolescent Research, 19*, 45-62.

*The relationship between social self-perceptions, time use, and later involvement in prosocial or problem behaviors during early, middle, and later adolescence was examined. Data was used from the Childhood and Beyond Longitudinal Study; the sample included 710 7<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade students. Four patterns of social self-perceptions were identified- confident, anxious, unconcerned, and desperate. Adolescents who were most self-confident about their social skills and the desperate group spent significantly more time with peers than those in the other two groups. Also, those in the desperate group spent less time at home than members of any other group. The confident group spent the most time with their peers but they also spent a lot of time at home and on prosocial activities. Adolescents' time with peers increased significantly with age, and time spent on prosocial activities increased between 7<sup>th</sup> and 8<sup>th</sup> grade. Adolescents were significantly more likely to be involved in problem behaviors and prosocial behaviors with increasing age. Patterns of social self-perceptions were significantly related to adolescents' own involvement and their perception of friends' involvement in prosocial and problem behaviors.*

Leaver-Dunn, D., & Newman, B.M. (2007). Influence of sports' programs and club activities on alcohol use intentions and behaviors among adolescent males. *Journal of Alcohol and Drug Education, 51*, 57-72.

*This study assessed the influence of organized activity participation on adolescent males' use of alcohol and their intentions to use alcohol. The sample consisted of 1690 males from grades 10-12 from public school systems in Alabama. Results showed no differences in alcohol use between participants and non-participants in sports activities. Significant differences were observed regarding alcohol use between participants and non-participants in clubs and*

organizations. Club members were significantly less likely to be drinkers or binge drinkers than were non-members. In summary, the study showed protective effects from recreational activities on alcohol abuse and intentions among male adolescents but showed no effect of sports activities on alcohol use.

Miller, K.E., Hoffman, J.H., Barnes, G.M., Farrell, M.P., Sabo, D., & Melnick, M.J. (2003). Jocks, gender, race, and adolescent problem drinking. *Journal of Drug Education, 33*, 445-462.

*The sample of this study was 699 Western New York adolescents and their families. The purpose of the research was to find out the gender-specific and race-specific relationships between an adolescent identifying themselves as being a "jock" and alcohol consumption. The study found that self-identified adolescent "jocks" were more likely to engage in problem drinking than non-"jocks." The association of jock identity and binge drinking was significantly higher for black girls than for white girls. This research shows that what matters about adolescent involvement in sports is not just its function of filling time with structured, supervised activity but also its contributions to the development of an identity.*

Moore, M.J., & Werch, C.E. (2005). Sport and physical activity participation and substance use among adolescents. *Journal of Adolescent Health, 36*, 486-493.

*The sample of this study was 891 8<sup>th</sup> grade adolescents from three middle schools in rural, suburban, and urban areas in Florida. This study examined the relationship between involvement in various sports and physical activities, both school-sponsored and out of school, and substance use. Findings showed that females in school sponsored dance, cheerleading, and gymnastics were at a decreased risk of alcohol use. Females in out of school dance, cheerleading, gymnastics, skateboarding, or surfing were at an increased risk of using at least one substance. Males in out of school swimming were at a decreased risk of heavy alcohol use while those in school sponsored football, swimming, wrestling, or out of school tennis were at an increased risk of using at least one substance. The authors concluded that school sponsored, male dominated sports appeared to be associated with an increased substance use risk for males and out of school, mixed-gender sports seemed to be associated with an increased risk for females.*

Osgood, D.W., & Anderson, A.L. (2004). Unstructured socializing and rates of delinquency. *Criminology, 42*, 519-549.

*A sample of 4,358 8<sup>th</sup> grade students from 36 schools in ten cities were used to examine time spent in unstructured socializing with peers and rates of delinquency. Results showed that high rates of unstructured socializing increased opportunities for offending for adolescents. The study also found a strong context effect of parental monitoring on unstructured socializing.*

Paschall, M.J., Ringwalt, C.L., & Flewelling, R.L. (2002). Explaining higher levels of alcohol use among working adolescents: An analysis of potential explanatory variables. *Journal of Studies on Alcohol*, 63, 169-178.

*Alcohol use among working adolescents relative to non-working adolescents was examined in this study. A sample of 4,497 14-17 year olds who participated in the 1998 National Household Survey on Drug Abuse was used. The results showed that significantly higher rates of past month alcohol use and heavy drinking were reported by working than nonworking adolescents. The higher rates of past month alcohol use and heavy drinking among working adolescents were largely explained by demographic characteristics (age, race/ethnicity) together with perceived drinking norms among adults, other students, and friends. The authors caution that the differences between working and non-working adults were largely spurious due to demographic differences. However, working adolescents were more likely to be exposed to adults and peers who drink which may be attributed to their work setting.*

Peck, S.C., Vida, M., & Eccles, J.S. (2008). Adolescent pathways to adulthood drinking: Sport activity involvement is not necessarily risky or protective. *Addiction*, 103(s1), 69-83.

*Data was used from the Michigan Study of Adolescent Life Transitions which was a longitudinal study beginning in 1983 with 1,000 participants at age 12 and continuing on in four waves until participants were at about age 28. This study examined how adolescents' alcohol use and sports activities were related to childhood sport and problem behavior and to heavy drinking in early adulthood. Results showed a relationship between adolescent sport activity and age 28 heavy alcohol use primarily for sports participants who were using more than the average amount of drugs and alcohol at age 18. Children who were characterized by relatively high levels of sports participation, aggression, and other problem behavior at age 12 were more likely to become sports participants who used more than the average amount of drugs or alcohol at age 18. The authors conclude that alcohol use appears to be governed by different personal and social factors for different people at different points in time.*

Wetherill, R.R., & Fromme, K. (2007). Alcohol use, sexual activity, and perceived risk in high school athletes and non-athletes. *Journal of Adolescent Health*, 41, 294-301.

*This longitudinal study started with 2,247 college bound high school graduates and continued over 4 consecutive years with the students providing data semi-annually. The study sought to assess whether athletes begin to engage in more alcohol use and sexual activity before college and if low perceived risk plays a role in the process. Results showed that high school athletes have lower perceived risk, drink more heavily, have more sexual partners, and engage in unsafe sexual behaviors more frequently than non-athletes. Also, perceived risk mediated the associations between athlete status and alcohol use and between athlete status and number of sexual partners.*

Wong, S.K. (2005). The effects of adolescent activities on delinquency: A differential involvement approach. *Journal of Youth and Adolescence*, 34, 321-333.

*This investigated the relationship between involvement in activities and delinquency. The data comes from 578 surveys of students grades 5-12 from a western Canadian city of 40,000. Results showed that school and family related activities strengthened the social bond and reduced delinquency while other conventional activities (spending time with friends and dating) had the opposite effect. Studying or doing homework had the strongest restraining effect on delinquency even though it was one of the least socially interactive activities. This study shows that involvement in activities is an important factor but involvement alone is not an adequate explanation of delinquency. The effects of activities on delinquency are mediated by the strength of the adolescent's relationships to his or her significant others and the delinquency involvement of the people with whom they associate.*

## General Culture Factor Summary

A total of 58 articles published between 2000 and 2008 were identified that relate to the overall culture surrounding drinking. These articles were not easily organized into a single specific category. That is however, several topical clusters, including risk-factors overview, environment and moderators (such as race, gender, social economic status, religion or region of the country), were identified. Nine international studies were included, primary focused in England, Australia and the Netherlands; many of these studies compared alcohol use within their country to the American culture's alcohol use. The overall nature of these general culture research studies was upon exploring multiple factors or motivations of teen drinking rather than investigating one specific aspect of teen drinking.

The research articles include an exploration of 'wet and dry' drinking cultures, history and trends of teen drinking the United States, race and gender similarities and differences concerning alcohol use, peer and parent variables, and other risk factors regarding adolescents' alcohol use. Overall, these studies examined who was drinking, what they were drinking and how much they drank. They also reviewed when and where they were drinking, when they initiated drinking, and how often they consumed alcohol and patterns of drinking alcohol (from a few sips to binge drinking). Factors within the environment were generally identified as preventive or predictive for alcohol use. Paths to future reductions of alcohol use and abuse were explored by a few studies.

The 'why' of drinking was not examined in most of these studies, although the international journal articles encompassed 'why' in the context of the culture surrounding adolescent drinking. When assessing alcohol and culture, the American journals referenced articles defining differences in alcohol use by comparing white Americans with African-Americans or occasionally Hispanics. No mention was made of the other races. This review of "culture" and "cultures factors" referenced ethnicity within a cultural context.

## General Culture Factor Annotated Bibliography

Abbey, A., Jacques, A.J., Hayman Jr., L.W., & Sobek, J. (2006). Predictors of early substance use among African American and Caucasian youth from urban and suburban communities. *Merrill-Palmer Quarterly*, 52, 305-326.

*This study sought to determine the extent to which substance use risk differs for urban African American and suburban Caucasian youth. The sample included 420 6<sup>th</sup> graders from urban Detroit schools (primarily African American) and 391 6<sup>th</sup> graders from suburban Detroit schools (primarily white). Findings showed that for groups, peer pressure susceptibility and school commitment was significantly related to substance use. For girls only, participation in after-school activities was negatively associated with substance use. The authors concluded that few differences were found in the predictors of substance use for these urban, primarily African American and suburban, primarily Caucasian 6<sup>th</sup> graders.*

Able, G., & Plumridge, E. (2004). Network 'norms' or 'styles' of 'drunken comportment'? *Health Education Research*, 19, 492-500.

*This research study examines cultural norms within 'wet' or 'dry' societies. The sample population consisted of 42 randomly selected students in middle school (age 13-14) using in-depth interviews and focus groups with social network analysis. The research found that acceptable limits of "disinhibition" and "control", were understood differently by various social contexts and how 'norms' were understood as a social prescription.*

Andrews, J.A., Tildesley, E., Hops, H., Duncan, S.C., & Severson, H.H. (2003). Elementary school age children's future intentions and use of substances. *Journal of Clinical Child and Adolescent Psychology*, 32, 556-567.

*This article described the prevalence of trying cigarettes, chewing tobacco, alcohol, marijuana, and inhalants across 1<sup>st</sup> through 7<sup>th</sup> grade (n=1,075) using data collected over a 3 year period. Recognition of substances and intentions to use were also examined. Almost all 1<sup>st</sup> through 3<sup>rd</sup> graders indentified alcohol and cigarettes. The proportion of students trying substances, trying without parents knowing about it, and reporting intention to try substances in the future increased with age. The increase was notable between 3<sup>rd</sup> and 4<sup>th</sup> grade and higher between 5<sup>th</sup> and 6<sup>th</sup> grade. Boys were more likely than girls to report trying alcohol at an early age, trying alcohol without parents' knowledge, and intending to try alcohol when older.*

Arata, C.M., Stafford, J., & Tims, M.S. (2003). High school drinking and its consequences. *Adolescence*, 38(151), 567-579.

*This study examined the prevalence of problem drinking among adolescents at an urban, private high school (n=930), to identify frequencies of problems related to drinking, and to identify parent and peer variables associated with being a problem drinker. The study found that female adolescents who drink are more likely to be moderate drinkers whereas male teenagers who*



*drink are more likely to drink in excess. Problem drinkers were more likely to have parents who approved of teenagers drinking, as well as more permissive parents, than moderate drinkers and nondrinkers. Problem and moderate drinkers reported greater parental consumption of alcohol and less parental monitoring. Problem drinkers were more susceptible to peer pressure than nondrinkers and moderate drinkers. Problem drinkers described their peers as drinking more in comparison with nondrinkers and moderate drinkers. The most common problems reported being associated with their drinking were neglecting responsibilities, having a bad time, and acting in a negative way. In summary, parental modeling and supervision were found to be related to amount of alcohol consumed, as were susceptibility to peer pressure and perception of peer drinking behavior.*

Barnes, G.M., Welte, J.W., Hoffman, J.H., & Dintcheff, B.A. (2005). Shared predictors of youthful gambling, substance use, and delinquency. *Psychology of Addictive Behaviors*, 19, 165-174.

*The authors hypothesized that the problem behaviors of gambling, alcohol misuse, drug use, and delinquency in adolescence have shared antecedents. This was a longitudinal study with data taken from two general population household surveys with a sample of youth from the Buffalo, NY area. Results showed that black youth had lower levels of problem behaviors than whites. Impulsivity was a significant predictor of alcohol misuse for females and delinquency for males. Moral disengagement predicted gambling for males. Parental monitoring showed a significant inverse relationship to alcohol misuse and other substance use for males. Finally, peer delinquency showed numerous prospective paths to youth problem behaviors for both genders.*

Beccaria, F., & Guidoni O. (2002). Young people in a wet culture: Functions and patterns of drinking. *Contemporary Drug Problems*, 29, 305-319

*An analysis of the data from three qualitative research studies on young people and alcohol, (1997-1999) looking for meanings and functions of alcohol consumption in a wet society (Italy). Results were that young Italians' drinking is essentially a social behavior, learned and practiced with others. Policy should focus on an active subject, one who values the ability to "take his drink" and the 'risk-seeking culture.' Alcohol consumption is ritualistic with drinking games being the most prevalent behavior.*

Bjarnason, T., Anderson, B., Choquet, M., Elekes, Z., Morgan, M., & Rapinett, G. (2003). Alcohol culture, family structure and adolescent alcohol use: multilevel modeling of frequency of heavy drinking among 15-16 year old students in 11 European countries. *Journal of Studies on Alcohol*, 64, 200-209.

*This article examined the interaction of societal level alcohol culture and individual family context on the frequency of adolescent heavy drinking. Specifically, the direct effects of societal level consumption patterns on the individual level associations between family structure and heavy drinking among 15-16 year old students in 11 European countries were considered. The*

*data came from the 1999 European School Survey Project on Alcohol and Other Drugs Study which consisted of self-reports from 34,001 students from Cyprus, France, Hungary, Iceland, Ireland, Lithuania, Malta, the Slovak Republic, Slovenia, Sweden, and the United Kingdom. Results showed that in each of the countries, adolescents engaged in heavier drinking when they did not live with both biological parents. Adolescents living with both biological parents drank less heavily than those living in any other arrangements and adolescents living with a single mother drank less heavily than those living with a single father or with neither parent. The availability of beer and heavy alcohol consumption in adolescent society were found to contribute to the frequency of individual alcohol consumption, independent of individual propensity towards heavy alcohol use per occasion and individual living arrangements. The adverse effect of living in nonintact families was found to be greater in societies where alcohol availability is greater and heavy alcohol use among adolescents is more widespread. This supports the idea that adolescent alcohol use is embedded in a social context that is incapable of being reduced to individual circumstances. Deficiencies associated with nonintact family structures, such as single parent homes may become more consequential as the general availability of alcohol and alcohol consumption in adolescent society become greater.*

Bolland, J.M. (2003). Hopelessness and risk behavior among adolescents living in high-poverty inner-city neighborhoods. *Journal of Adolescence*, 26, 145-158.

*The sample for this study was 2,468 inner city adolescents (Mobile, Alabama) aged 9-19. The researchers surveyed both the adolescents and parents to find out if feelings of hopelessness among the adolescents correlated with high risk behaviors. They found that about 50% of males and 25% of females had moderate or severe feelings of hopelessness and that hopelessness predicted each of the risk behaviors examined (violent and aggressive behavior, substance use, sexual behavior, and accidental injury). Males with moderate or severe feelings of hopelessness were significantly more likely to drink alcohol, get drunk or high, or have a child than females with moderate or severe feelings of hopelessness. Girls with moderate or severe feelings of hopelessness were still more likely to engage in these behaviors than girls who did not have these feelings.*

Bolland, J. M., Bryant, C. M., Lian, B. E., McCallum, D. M., Vazsonyi, A. T., & Barth, J. M. (2007). Development and risk behavior among African America, Caucasian and mixed-race adolescents living in high poverty inner-city neighborhoods. *American Journal of Community Psychology*, 40, 230-249.

*A sample of 5,895 impoverished 10-18 year olds were surveyed at least once from 1998-2003 on hopelessness, self-identified race, and risk behaviors. Risk behaviors included substance use (alcohol: lifetime, past 30 days, past 7 days), violence and sexuality. The research questions assessed the levels of risk behavior by race, and whether or not the relationship between hopelessness and risk behaviors is moderated by race. The researcher found that hopelessness declines with age, and most drastically between ages 12 and 13. Mixed-race youth had the highest alcohol use and the highest level of hopelessness, but Caucasians with high levels of hopelessness reported greater increases in alcohol use over time than mixed-race youth or*

*African American youth. African-Americans reported the least amount of hopelessness and alcohol use.*

Bonomo, Y.A. (2005). Adolescent alcohol problems: Whose responsibility is it anyway? *The Medical Journal of Australia*, 183, 430-432.

*This research provides an overview of the risk factors for teen drinking including individual factors such as genetic predisposition and personality. Social factors such as family, school, peers, and the wider community were also cited. Another risk factor includes social messages in the media.*

Costello, B.J., Anderson, B.J., & Stein, M.D. (2006). Heavy episodic drinking among adolescents: A test of hypotheses derived from control theory. *Journal of Alcohol and Drug Education*, 50, 35-55.

*This article is based on Control Theory, a popular theory of crime and deviance that suggests individuals who are more socially integrated are less likely to deviate from social norms. The purpose of this article was to assess the extent to which control theory could explain heavy episodic drinking in a sample of high school students (n=938 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> graders). The results showed that attachment to parents, belief in the law, commitment to school, and self-control were all strong predictors of adolescent heavy episodic drinking.*

Courtwright, D. (2005). Mr. ATOD's wild ride: What do alcohol, tobacco, and other drugs have in common? *The Social History of Alcohol and Drugs*, 20, 105-124.

*This article is a short review and analysis of the history of drug use in American society, and the role that drugs have played in popular culture. The author found that, when investigating the globalization of drugs for a specific drug, (such as alcohol, tobacco and opiates), the substances were not compartmentalized but rather kept "sloshing over onto one another." Limbic consumerism has become more profitable in modern America, as consumers combine drugs.*

Curran, E.M. (2007). The relationship between social capital and substance use by high school students. *Journal of Alcohol and Drug Education*, 51, 59-73.

*This study is based on Social Capital Theory which suggests that assets inherent in social relations may be used to enhance outcomes for individuals. It also suggests that youth with increased access to social capital may be less likely to exhibit social and behavioral difficulties. This secondary analysis examined the relationship between social capital and substance use by high school students. The sample consisted of 590 9<sup>th</sup>-12<sup>th</sup> grade students from two public high schools in a medium-sized Midwestern city. The results showed that the greater the social capital reported by the adolescent, the less likely the adolescent was to engage in the high risk behaviors addressed in the study. Parental rules and expectations were consistently the strongest predictors of substance use. The findings suggest that the factors related to alcohol*

*use, outside of parental rules and expectations, may be decidedly different than those that are related to the other substance use variables examined, such as tobacco and marijuana.*

D'Amico, E.J., Metrik, J., McCarthy, D.M., Frissell, K.C., Appelbaum, M., & Brown, S.A. (2001). Progression into and out of binge drinking among high school students. *Psychology of Addictive Behaviors, 15*, 341-349.

*The purpose of this study was to examine the progression into and out of binge drinking by longitudinally examining drinking trajectories of high school students during an academic year. A sample of 621, 9<sup>th</sup> through 12<sup>th</sup> grade youth who currently drink alcohol were surveyed. Results showed that adolescents who reported binge drinking were older, had lower GPA's, reported more frequent use of other substances, and engaged in other risk behaviors (such as drunk driving and riding with a drunk driver) more frequently. Youth who binge drank consistently began to use other gateway substances at a younger age. Younger adolescents who reported increasing their drinking over the course of the academic year also reported lower self-esteem than youth who maintained their drinking levels. Adolescents who escalated their binge drinking had higher estimates of alcohol use, whereas those who continued drinking without bingeing reported a perception of lower intensity of use among students in their school. They also found that many high school students made personal efforts to cut down or stop their alcohol use, with few reporting the use of typically prescribed services (i.e., Alcoholics Anonymous).*

Donovan, J.E., Leech, S.L., Zucker, R.A., Loveland-Cherry, C.J., Jester, J.M., Fitzgerald, H.E., et al. (2004). Really underage drinkers: Alcohol use among elementary students. *Alcoholism: Clinical and Experimental Research, 28*(2), 341-349.

*This article is a review of research presented at a symposium in 2003 focused on alcohol use among elementary school children by reviewing what is known about drinking in childhood. The presentations indicated the need for better nationwide surveillance of children's experience with alcohol. The research suggests that children's reported use of alcohol tend to be reliable and valid. They also supported that children alcohol use schemas and parental drinking and alcoholism at child age three as independent predictors of early onset drinking, and showed that early onset of drinking before fourth or fifth grade, peer pressure, and parental norms and monitoring predict elementary student alcohol use and misuse.*

Ellickson, P.L., Tucker, J.S., & Klein, D.J. (2003). Ten-year prospective study of public health problems. *Pediatrics, 111*, 949-955.

*This study samples individuals in grade 7 (n=6338) and follows up with them in grade 12 (n=4265) and again at age 23 (n=3369). The sample is from California and Oregon schools. The research was done to compare early nondrinkers, experimenters, and drinkers on problem behaviors at the three different ages. The study found that the early drinkers and experimenters were more likely than nondrinkers to report academic problems, substance use, and delinquent*

*behavior in middle school and high school. At age 23, early alcohol use was associated with employment problems, other substance abuse, and criminal and violent behavior.*

Engels, R.C.M.E., & Knibbe, R.A. (2000). Alcohol use and intimate relationships in adolescence: When love comes to town. *Addictive Behaviors*, 25, 435-439.

*The association between involvement in a steady relationship and adolescents' alcohol use was examined in this study using longitudinal data of 14-18 year old students from the Netherlands. More specifically, the effects of alcohol use on the formation of steady relationships and the possibility that young people change their drinking habits once they become engaged in a romantic relationship were the focus. Adolescents who consumed alcohol at ages 14 and 15 were more likely to be involved in an intimate relationship 3 years later (drinking in social settings in particular increased the likelihood of having a partner 3 years later). For males, partnership was associated with a smaller increase in alcohol consumption in public drinking places compared to the other categories (never had a partner/no partner at the time). However, the increase in consumption at home was the strongest for young men involved in a steady relationship. For females, the differences in changes in consumption between the partnership categories were in most cases not significant.*

Faden, V., & Fay, M. (2004). Trends in drinking among Americans age 18 and younger: 1975-2002. *Alcoholism: Clinical and Experimental Research*, 28, 1388-1395.

*Joinpoint regression software analyzed the trend data in three surveys: the Youth Risk Behavior Survey, Monitoring the Future, and the National Household Survey on Drug Abuse, to reveal trends in youth alcohol use under age 18. Trend data show an increase in the late 1970's followed by a long period of decrease until the early 1990's, whereupon the trend turned upwards for a 5 year period and then down again. The declining trend from 1979-1993 may be a result in the change in drinking age, as the National Minimum Drinking Age Act was passed in 1984. Overall trends in teen drinking, while not increasing, remain, at unacceptable high levels despite numerous interventions and programs aimed at reducing underage drinking, youth drinking appears to have stabilized.*

Frissell, K.C., McCarthy, D.M., D'Amico, E.J., Metrik, J., Ellingstad, T.P. & Brown, S.A. (2004). Impact of consent procedures on reported levels of adolescent alcohol use. *Psychology of Addictive Behaviors*, 18, 307-315.

*This study examined sample bias related to parental consent procedures in school based survey research on alcohol related behavior. The two types of parental consent procedures most commonly used are traditional-active consent (which requires parents to return a signed consent form) and alternative/or (passive) consent (which requires a returned parent consent form only if they do not want their child to participate). A sample of 9<sup>th</sup>-12<sup>th</sup> graders was surveyed at 3 different time points. Findings showed that traditional-active consent procedures resulted in lower student participation rates and biases in prevalence of lifetime drinking and hazardous drinking. High risk drinking is underestimated in the traditional active parental*

consent procedures; traditional-active parental consent procedures appeared to have led to the underrepresentation of lifetime and high risk drinkers in the survey study. According to the authors, previous research has shown that parental non-response in low risk surveys typically does not reflect parent refusal, but rather it suggests a failure to attend to the request and the inconvenience of responding. Families with few resources and more disruptions or problems are the least likely to follow through to provide consent. Research procedures that place a greater burden on such families are least likely to be able to involve those students at high risk for early alcohol use and problems.

Gibbons, F. X., Reimer, R. A., Gerrard, M., Yeh, H-C., Houlihan, A. E., Cutron, et al. (2007). Rural-urban differences in substance use among African-American adolescents. *The Journal of Rural Health, 23* (supplement), 22-28.

*A sample of 670 African-American adolescents and their parents participated in the Family and Community Health Study over the course of 3 years, with 3 time points for data collection. Adolescents and parents were interviewed on completed measures on negative affect (depression and anxiety), substance accessibility and alcohol, tobacco and drug use (combined). Researchers hypothesized that substances would be more accessible in urban areas, and the relationship between community size and adolescent substance use would be explained by accessibility. It was also posited that the relationship between negative affect and substance use would be moderated by rural-urban status. Some gender differences occurred, as females in rural areas used showed less substance abuse compared to rural males and both male and female urban adolescents. They found that urban areas were perceived as more accessible and had greater adolescent and parent use. Despite lower social economic status and more crime, there was less use by adolescents in rural environments, where they perceived less availability, reported less negative affect and were less likely to respond to negative affect with substance use.*

Goldberg, J., Halpern-Feisher, B., & Milstein, S. (2002). Beyond invulnerability: The importance of benefits in adolescents' decision to drink alcohol. *Health Psychology, 21*, 477-484.

*This study investigated the benefits and risks of alcohol and tobacco use from self-reports of 5<sup>th</sup>, 7<sup>th</sup> and 9<sup>th</sup> graders (n=395) with a six month follow-up. With increased age, benefits were perceived by students to be more likely and risks less likely. Perceived benefits were a significant predictor of actual drinking and smoking 6 months later. The majority of respondents reported experiencing positive consequences when drinking alcohol and teens decisions about drinking are consistent with the perception of the balance of risks and benefits. Overall, the results found that young adolescents do not expect to experience positive outcomes from alcohol; however, positive outcomes are more likely than negative outcomes.*

Gosselt, J., van Hoof, J., de Jong, M., & Prisen, S. (2007). Mystery shopping and alcohol sales: Do supermarkets and liquor stores sell alcohol to underage customers? *Journal of Adolescent Health, 41*, 302-308.

*This study examines the compliance of retailer's sale of alcohol to underage drinkers in the Netherlands. Adolescents, aged 15 and 17 year olds were sent to supermarkets and liquor stores to make purchases of both spirits and beer and wine. Results showed that although retail outlets reported that 91% reported no single offence had occurred in their stores, in 300 shopping attempts, youth were asked for an identification only 71 times, and still able to purchase 39% of the time. Overall 86% of adolescents were successful in purchasing alcohol underage, with females being more successful than males.*

Hayward, K., & Gibbs, D. (2007). Beyond the binge in 'booze Britain': Market-led liminalization and spectacle of binge drinking. *The British Journal of Sociology*, 58, 437-456.

*This article defines contemporary consumer culture in Britain as Nighttime Economy as an "endless pursuit of want", a central feature being subjects who are constantly looking for new commodities and alternative experiences. The youth of Britain are exposed to the aggressive advertisements of 'life-style advertizing.' These advertisements target the 'new' and the 'now' to a hedonistic consumer culture that separates young people from the consequences of their actions – binge drinking being an obvious example, and problem drinking is becoming normalized.*

Hipwell, A.E., White, H.R., Loeber, R., Stouthamer-Loeber, M., Chung, T. & Sembower, M.A. (2005). Young girls' expectancies about the effects of alcohol, future intentions, and patterns of use. *Journal of Studies on Alcohol*, 66, 630-639.

*This study examines the prevalence and correlates of alcohol use, future intentions and expectancies among preadolescent girls. The data used was from the Pittsburgh Girls Study (n=1,161) and consisted of young girls from the ages of 8-10. Findings showed that alcohol related expectancies were predominantly negative during this period but decreased with age. Positive expectancies increased, particularly among white girls. Early alcohol use was predicted by black race and peer use. Intentions to use alcohol were predicted by low levels of negative expectancies and peer use.*

Hook, S., Harris, S., Brooks, T., Carey, P, Kossack, R, Kulig, J., et al. (2007). The "Six T's": Barriers to screening teens for substance abuse in primary care. *Journal of Adolescent Health*, 40, 456-461.

*A qualitative study examined the early identification of alcohol use by teens and the identifying barriers to alcohol screening for teens (12-18) in primary care. Researchers used focus groups with physicians (family practice, pediatrics, and adolescent medicine) with a total of 38 providers. Results showed that lack of time was the primary barrier to alcohol screening; this was followed by lack of training, and lack of resources.*

Horton, E.G. (2007). Racial differences in the effects of age of onset on alcohol consumption and development of alcohol-related problems among males from mid-adolescence to young adulthood. *Journal of Ethnicity in Substance Abuse*, 6, 1-13.

*This study examined the effects of race and alcohol use onset status (use vs. no use) on changes in levels of alcohol use and the development of alcohol related problems among males as they moved through adolescence and in young adulthood. This was a longitudinal study that surveyed African American and white non-Hispanic males in 6<sup>th</sup> grade, 8<sup>th</sup> grade and post high-school. Results showed lower levels of alcohol use in adolescence and young adulthood and fewer alcohol related problems among African Americans. Onset of alcohol use before 6<sup>th</sup> grade had a stronger effect on several factors among African Americans than among their white non-Hispanic peers on 8<sup>th</sup> grades intensity of alcohol use, the number of drinks consumed per drinking day in young adulthood, and the development of alcohol related problems in young adulthood.*

Kim-Godwin, Y.S., Clements, C., Bullers, S., Maume, M., & Demski, E. (2007). Sexual behaviors and drinking patterns among middle school and high school students in southeastern North Carolina. *The Journal of School Nursing, 23*, 214-221.

*The purpose of this study was to examine the relationship between sexual behaviors and alcohol use among middle school and high school students in a small, urban southeastern North Carolina county. A total of 619 middle school students and 375 high school students with an age range of 10-18 years old participated in the survey. Strong associations between overall drinking patterns and sexual behaviors were found. Alcohol, race, and age were significant determinants of sexual experience for all students while gender was significant only for middle school students.*

Kogan, S. M., Berkel, C., Chen, Y., Brody, G. H., & Murray, V. M. (2006). Metro status and African-American adolescents' risk for substance use. *Journal of Adolescent Health, 38*, 454-457.

*Using data from the Youth Risk Behavior Survey, researchers analyzed 3,590 African American high schoolers' reports of lifetime and 30-day substance use and binge drinking. Based upon their setting as rural, urban or suburban, to differences in substance use across the various contexts were examined. The researcher found that both male and female rural students reported higher alcohol use (lifetime, past 30 days and binge) than their urban and suburban counterparts. Results suggest that urban and suburban residence is more associated with illicit substances than with alcohol for African-American students compared to those in rural areas.*

Kuntsche, E., Knibbe, R., Gmel, G. & Engels, R. (2005). Why do young people drink? A review of drinking motives. *Clinical Psychology Review, 25*, 841-861.

*This article reviewed recent empirical research on adolescents' and young adults' drinking motives with a concentration on formal aspects of drinking motives and possible consequences. Results showed that most young people reported drinking for social motives; some indicated enhancement motives (to enhance positive mood or well-being), and only a few reported coping motives. Social motives appeared to be associated with moderate alcohol use, enhancement*



*motives were associated with heavy drinking, and coping motives were linked to alcohol-related problems.*

Link, T. (2008). Youthful intoxication: A cross-cultural study of drinking among German and American adolescents. *Journal of Studies on Alcohol and Drugs*, 69, 362-371.

*This study investigated the drinking behavior among German, (n=11,043) and American (n=16,300) adolescents. The authors define the US drinking culture as “ambivalent” and the German drinking culture as “permissive and dysfunctional.” Results found that peers were important to both cultures; however, American youth had more free time to spend with peers and larger peers groups while German youth had more of a one on one romantic relationship with peers. German drinking is allowed at age 18 while American at age 21 and frequency of getting drunk or problem use of alcohol is reported as equal. The authors suggest that the “forbidden fruit” experience of American teens may develop behaviors and attitudes that contribute to alcohol consumption.*

Martinez, J., Rutledge, P., & Sher, K. (2007). Fake ID ownership and heavy drinking in underage college students: Prospective findings. *Psychology of Addictive Behaviors*, 21, 226-232.

*This study in a Midwest university, examined the relationship between fake identification and heavy drinking with college students under 21 (n=3720), starting the summer prior to college and during the first two years of college. Results found that fake identification ownership was a mechanism to obtain underage alcohol and that ownership is highly prevalent in college and predicts heavy drinking. The authors found that these rates steadily increase with time during college. Heavy drinking also predicts fake identification ownership.*

McClelland, G.M., Elkington, K.S., Teplin, L.A., & Abram, K.M. (2004). Multiple substance use disorders in juvenile detainees. *Journal of the American Academy of Child and Adolescent Psychiatry*, 43, 1215-1224.

*A sample of 1,828 juvenile detainees ages 10-18 was studied to estimate the 6-month prevalence of multiple substance use disorders (SUDs). About half of the sample had 1 or more SUDs and more than 21% had 2 or more SUDs. The most prevalent combination of SUDs involved alcohol and marijuana use disorders. Among detainees with alcohol use disorder, more than 80% also had one or more drug use disorders. Among detainees with a drug use disorder, about 50% also had an alcohol use disorder. The authors concluded that among youth detainees with any SUD, having multiple SUDs is the norm. The authors propose that substance abuse treatment needs to target youth with multiple SUDs who are harder to treat than youth with only one SUD.*

McIntosh, J., MacDonald, F. & McKeganey, N. (2008). Pre-teenage children's experience with alcohol. *Children & Society*, 22, 3-15.

*This study examined pre-teen (10-12) attitudes and experiences with alcohol and drugs by both a survey (n=2328) and individual interviews (n=230). Focused on the (n=77) children who had experimented with alcohol with other young people. Curiosity, fueled by circumstance and opportunity, led to drinking initiation. The majority, said parents would disapprove of alcohol use resulting in their development of multiple strategies to prevent being discovered drinking. Getting intoxicated was common and the main reason for drinking, and they used alcopops or mixed alcohol with another beverage to mask the taste. Obtaining alcohol was easy and usually supplied by other youth.*

Measham, F. (2004). The decline of ecstasy, the rise of 'binge' drinking and the persistence of pleasure. *Probation Journal*, 51, 309-326.

*The author discusses the trends of decreased illicit drug use and increased sessional alcohol consumption in the context of British cultural changes. Multiple shifts have occurred that follow the decrease in illicit drug use and the increase in alcohol consumption, most notably the reformulation of 'dry' clubs and the revamping of bar areas in cities. The author notes that each generation of adolescents searches for a new way to rebel against their parents' generation, and that trends in risky behaviors tend to match these generational shifts. The search for pleasure is reported to lead to innovation in leisure activities, and can also explain changes in substance use. Current substance users are posited to seek controlled pleasure, with weekend alcohol consumption being an example of a generation seeking pleasure while having boundaries of not being viewed as out of control.*

Moore, D. (2002). Opening up the cul-de-sac of youth drug studies: A contribution to the construction of some alternative truths. *Contemporary Drug Problems*, 29, 13-63.

*The author discusses the developmental model of youth and adolescence and the focus of youth drug research on biology, environment and personal identity. The author calls for other disciplines to enter drug research to breathe new life into stale debates, and cites a need for cultural or social theory in youth drug research for both policy and practice.*

Moore, M., & Werch, C. (2007). Results of a two-year longitudinal study of beverage-specific alcohol use among adolescents. *Journal of Drug Education* 37, 107-122.

*This study explored beverage-specific alcohol consumption patterns (n=455) of high school students over a 2 year period. The results showed that consumption patterns changed over time with liquor increasing, wine decreasing, and beer and flavored coolers staying constant. Different drinking patterns for gender and ethnicity were found, with females equal to males in consumption. The study suggested that certain beverage reductions may be masked by increases with other beverages.*

Myers, P.L., & Stolberg, V.B. (2003). Ethnographic lessons on substance use and substance abusers. *Journal of Ethnicity in Substance Abuse*, 2, 67-88.

*The purpose of this article is to present a comparative ethnographic study on the role of psychoactive substance use. It includes a brief analysis of the meaning and function on the integration of use, including ritual and public nature of use. The authors discuss the cultural construction of intoxication and of the abuser, as well as thoughts about humanizing the drug user. Key thoughts from the article include the variability of language use associated with substance use in different cultures and the use of language in manipulating social relationships. The authors say there are three general points that can be made about the integration of substance use and culture. They have to do with its ritualization, its public nature, and the relative scarcity of problematic substance use in small-scale, traditional societies. Ceremonial activities (rituals), including those involved with the consumption of psychoactive substances, often serve to integrate the social group, maintain group solidarity and support, mark off stages in the life cycle, and maintain a system of social exchange. The authors state that the study of cultural frameworks for alcohol and other drug use requires attention to a multiplicity of demographic variables, including regional subgroups, class, age, locale, acculturation/generation within ethnicity, and other changes over time. All members of any particular group will not exhibit identical behaviors with respect to substance use therefore, stereotypes should be avoided.*

Nasim, A., Belgrave, F., Jagers, R., Wilson, K., & Owens, K. (2007). The moderating effects of culture on peer deviance and alcohol use among high-risk African-American adolescents. *Journal of Drug Education, 37*, 335-363.

*This study examined Africentric beliefs, religiosity and ethnic identity in the African-American youth community as promotive or protective for the initiation of alcohol in the context of negative peer associations. The sample was at-risk African-American youth ages 13-20 (n=114), and involved questionnaires were part of a larger study on community based programs. The results found a relationship between higher Africentric beliefs and delayed alcohol onset; susceptibility for use remained consistent for the less-religious and alcohol use for highly religious was less probable. The number of youth who had consumed at least one alcoholic beverage over their lifetime was 47% compared to 36%.*

Oman, R.F., Vesely, S., Aspy, C.B., McLeroy, K.R., Rodine, S., & Marshall, L. (2004). The potential protective effect of youth assets on adolescent alcohol and drug use. *American Journal of Public Health, 94*, 1425-1430.

*The purpose of this study was to investigate relationships between 9 youth assets and alcohol and drug abuse in a low-income inner-city population (n=1255 youths). The assets included nonparental adult role models, peer role models, family communication, use of time (groups/sports), use of time (religion), good health practices (exercise/nutrition), community involvement, future aspirations, and responsible choices. Significant positive relationships were found between nonuse of alcohol and the availability of peer role models, positive family communication, good health practices related to exercise and nutrition, and adolescents' aspirations for the future. Females who had either religion asset or the responsible choices asset were approximately 4 times more likely to report nonuse of alcohol compared with*

*females who lacked either asset. Adolescents who lived in one parent households were approximately 2.5 times more likely to report nonuse of alcohol if they were actively involved in community activities. Youths who had any 1 of the assets were approximately 1.5 to 3 times more likely to report nonuse of drugs than youths who did not have any one of the assets.*

Palmqvist, R.A., Martikainen, L.K., & von Wright, M.R. (2003). A moving target: Reasons given by adolescents for alcohol and narcotics use, 1984 and 1999. *Journal of Youth and Adolescence*, 32, 195-203.

*The purpose of this study was to investigate the reasons given by adolescents for their own alcohol use, and for the use of alcohol and narcotics by others within different time frames. This study was done in Finland at two different periods of time. The first time was in 1984 and consisted of 396 9<sup>th</sup> graders. The second cohort was surveyed in 1999 and the sample included 488 8<sup>th</sup> grade students. The authors sought to look at the data in relation to the cultural transformations in the society at large. Results showed that the most common reasons for adolescents' own alcohol consumption in 1984 were peer influence and the desire for the experience. However, in 1999 the most common reasons were to have fun and to feel good. When asked about alcohol use by others, goals such as to get drunk and because the person wants to had increased by 1999. These results seem to indicate a cultural change supporting the view than an individual's desires have become major goals in his or her life. The findings suggest that adolescents' attitudes have become more liberal towards alcohol and narcotics use.*

Paschal, A.M., Lewis, R.K., & Sly, J. (2007). African American parents' behaviors and attitudes about substance use and abuse. *Journal of Ethnicity in Substance Abuse*, 6, 67-79.

*The goal of this study was to examine whether the behaviors and attitudes of a sample of African American parents differed from the general population of adults. A sample of 239 African American parents participated with data from the Youth Empowerment Project survey. Results showed that the participant's attitudes were relatively more conservative and that alcohol and illicit drug use were lower than the general populace. Cigarette and marijuana use was comparable to the general population.*

Pirkis, J.E., Irwin, C.E., Brindis, C., Patton, G.C., & Sawyer, M.G. (2003). Adolescent substance use: Beware of international comparisons. *Journal of Adolescent Health*, 33, 279-286.

*The purpose of this article was to compare prevalence estimates of adolescents' cigarette, alcohol, and marijuana use from one Australian and two US surveys with a consideration of the effect of methodological differences on reported use. Substantial discrepancies were found between the estimates on one of the US surveys and the Australian survey. The authors describe several methodological issues that may be to blame for the discrepant findings; these include population focus, sampling, survey context, question wording, and precision of estimates. The authors stress the importance of caution when drawing conclusions from*

*international comparisons based on existing surveys and to be careful when considering differences in methodological approaches.*

Prinz, R.J., & Kerns, S.E.U. (2003). Early substance use by juvenile offenders. *Child Psychiatry and Human Development*, 33, 263-277.

*This study examined early substance initiation in childhood as reported by adolescents who were incarcerated for juvenile offenses. Participants included 189 youth incarcerated in South Carolina. The majority of males and females in the sample reported using at least one substance by age 13. Early initiation was most reflected by alcohol, with 15% of males and 18% of females reporting using alcohol by age 10. About 32% of the males and 39% of the females reported drinking alcoholic beverages several times per month or greater by age 13. Age of alcohol initiation was inversely correlated, with the highest alcohol frequency for males and females. Report of very early initiation of alcohol use (at or before age 10) was associated with reported subsequent levels of hallucinogen and crack/cocaine use. Early substance abuse initiation was associated with substance related offense status for females but not males. Female offenders who reported early use (by age 12) were more than twice as likely to have a substance related offense in their record. Initiation of alcohol use by age 10 was specifically predictive of substance related offenses in females. Results showed that reported substance use in pre-adolescence is prevalent in youth who are on trajectories of delinquency with reported early substance initiation seeming particularly predisposing for females.*

Ramisetty-Mikler, S., Caetano, R., Goebert, D., & Nishimura, S. (2004). Ethnic variation in drinking, drug use, and sexual behavior among adolescents in Hawaii. *Journal of School Health*, 74, 16-22.

*Data from the Youth Risk Behavior Surveys from the years 1997 and 1999 was used which included a sample of 2,657 students in grades 9-12 who attended schools in Hawaii. Researchers examined the ethnic differences in substance use and sexual behavior and whether drinking and drug use constitute risk factors for unsafe sexual practices among Native Hawaiians, Caucasians, and Asian/Pacific Islanders. The results showed that Native Hawaiians were more sexually active and were more likely to initiate sex earlier than the other ethnic groups. The adolescents who drink (episodic or non-episodic) or use drugs were more likely to be sexually active as well as practice unsafe behaviors. Male and Female Native Hawaiians were more likely to use alcohol, initiate drinking at younger ages, drink on school property, and engage in episodic drinking. Lifetime alcohol use was much higher among Native Hawaiians and Caucasian students. Drinking was the most powerful predictor of unsafe sex.*

Reddy, P., Resnicow, K., Omardien, R., Sci, B.B., & Kambaran, N. (2007). Prevalence and correlates of substance use among high school students in South Africa and the United States. *American Journal of Public Health*, 97, 1859-1864.

*A cross-country analysis of substance use between students residing in a long established industrialized country (US) and students residing in a country undergoing an economic, social,*

*and cultural transition (South Africa) was conducted. Data used was from the US Youth Risk Behavior Survey and an equivalent survey for South Africa, the South African National Youth Risk Behavior Survey. Results showed that the rates of monthly marijuana and alcohol use were significantly lower in South African than in the United States, whereas rates of lifetime illicit drug use were higher primarily due to heroin use. No differences were observed for heavy drinking or monthly cigarette use. Black race/ethnicity was associated with lower rates of cigarette and alcohol use in both countries and the protective effect of ethnicity on alcohol use was significantly more pronounced for South African students. Rates of tobacco, alcohol, and marijuana use were significantly lower among female South African students than among their male counterparts, whereas in the US female gender was protective only in the case of marijuana use. Better academic performance and younger age were protective against most drug use behaviors in both countries but academic performance, age, and grade were all significantly less protective of drug use in South Africa. In both countries, drug use rates were higher among the older students in 9<sup>th</sup> grade than among their younger counterparts.*

Room, R., & Makela, K. (2000). Typologies of the cultural position of drinking. *Journal of Studies on Alcohol*, 61, 475-483.

*This article provides an overview of the typologies of the cultural position on drinking. The authors conclude that no single dimension of those used in the past is likely to be able to capture the diversity of factors involved in the cultural position of drinking. Four ideal types can be readily distinguished- abstinent societies, constrained ritual drinking, banalized drinking, and fiesta drunkenness. The authors state that, based on these four types, a relatively limited number of societies can be characterized adequately by any one of them. They propose using two basic dimensions in approaching typology- regularity of drinking and extent of drunkenness. They say that these general dimensions can provide a framework for a crude classification of societies. Other dimensions to be considered include the cultural position of the drinker, the drinking group, and the drinking occasion, modes of social control of drinking, the nature of drinking-related problems, and means of handling the problems.*

Stewart, C., & Power, T.G. (2003). Ethnic, social class, and gender differences in adolescent drinking: Examining multiple aspects of consumption. *Journal of Adolescent Research*, 18, 575-598.

*This study used a sample of 1,874 high school students from a large, metropolitan city in the South. The purpose of the research was to find out if ethnic differences in adolescent drinking are due to social class. Results showed that European American students drank more (in frequency and quantity) followed by Mexican American students and lastly African American students. Despite that difference in frequency and quantity, the three groups showed no differences in drinking patterns, motivations, and consequences. European Americans engaged in more drinking in social settings while African American adolescents consumed alcohol alone or in school or work settings. The independent effects of social class found minimal differences among the three groups.*

Stewart, C., & Power, T.G. (2002). Identifying patterns of adolescent drinking: A tri-ethnic study. *Journal of Studies on Alcohol*, 63, 156-168.

*This study identified common patterns of adolescent drinking in a tri-ethnic sample seeking to identify which patterns may be the most problematic in each ethnic group. Participants were 9<sup>th</sup>-12<sup>th</sup> graders recruited from 6 high schools in a large metropolitan school district in the southwest (n=1,874). The researchers identified 8 common adolescent drinking patterns. They were light, parent, family occasion, date, moderate-friend, party, outdoor and heavy multiple-context drinkers. Boys showed heavier multiple-context drinking than girls. African Americans were most likely to show light drinking, European Americans were most likely to engage in outdoor drinking, and light and family drinkers showed the highest levels of self-esteem and the lowest levels of drinking consequences and antisocial behavior. The heavy multiple-context drinkers showed the greatest number of drinking consequences, drinking reasons, antisocial behavior, and the lowest self-esteem. The outdoor drinking group showed high levels of antisocial behavior and moderate levels of drinking reasons and consequences and showed the highest level of self-esteem of any group. These results help to identify three groups of adolescent drinkers; normative drinkers, problem drinkers, and at risk drinkers.*

Stolberg, V.B. (2006). A review of perspectives on alcohol and alcoholism in the history of American health and medicine. *Journal of Ethnicity in Substance Abuse*, 5, 39-106.

*This article reviewed alcohol use and alcoholism in the history of American health and medicine. It discusses how there has been a significant variation of how Americans have viewed alcohol and how they have responded to alcoholism. Throughout the early American period, alcohol was widely used and seen as having varied medicinal value; however, drunkenness was regarded as sinful. The historical persistence of the temperance mentality with its attention to the negative effects of drinking continues to generate conflicts that can at times be inconsistent with the goals of public health. American perspectives on what "normal" alcohol use is have changed considerably throughout history. This article has reviewed the conflicting perspectives on alcohol and alcoholism that Americans have had and still hold; these perspectives add to the difficulty of developing and maintaining clear and consistent policies and services to address this area of health and medicine.*

Strycker, L.A., Duncan, S.C., & Pickering, M.A. (2003). The social context of alcohol initiation among African American and White youth. *Journal of Ethnicity in Substance Abuse*, 2, 35-42.

*A sample of 148 youths who had already tried alcohol were surveyed to examine the social context of alcohol initiation in children and adolescents in terms of their gender, age, and ethnic differences (between African Americans and Whites). The mean alcohol use onset age was 10 years old. About 61% of the sample said they were with their parents when they first used alcohol and half were at home at the time. Many of the youths first tried alcohol when they were hanging out (39%) or at parties (35%). Younger first users were more likely to be at home with parents and siblings, yet older initiators tended to be surrounded by peers at social*

*gatherings. White youth tended to initiate use at a younger age and to be more heavily influenced by their families while African Americans tended to start later, more often under the influence of friends outside the home.*

Stueve, A., & O'Donnell, L.N. (2005). Early alcohol initiation and subsequent sexual and alcohol risk behaviors among urban youths. *American Journal of Public Health, 95*, 887-893.

*The sample of this longitudinal study included 1,034 African American and Hispanic youth who were surveyed when in 7<sup>th</sup> grade and then again in 10<sup>th</sup> grade. The 7<sup>th</sup> grade sample was from several Brooklyn middle schools; however, by the 10<sup>th</sup> grade they had moved to many different locations. The study sought to examine the relationship between early initiation of drinking alcohol and subsequent alcohol and sexual behaviors. The results showed that early drinking initiation was associated with alcohol and sexual risks through mid-adolescence. Those who started drinking earlier were more likely to report subsequent alcohol problems, unprotected sex, multiple partners, being drunk or high during sex, and pregnancy. Early drinking was related to sexual initiation and recent sexual intercourse for girls. This study highlights the need for earlier interventions to prevent the early initiation of alcohol use.*

Toomey, T.L., Fabian, L.E.A., Erickson, D.J., & Lenk, K.M. (2007). Propensity for obtaining alcohol through shoulder tapping. *Alcoholism: Clinical and Experimental Research, 31*, 1218-1223.

*This study assessed responses by adults who purchased alcohol for a young-appearing individual outside an alcohol establishment. It also examined the characteristics of the adult purchasers, alcohol establishments, and communities related to 'shoulder tap' outcomes. Results found that 204 pseudo-underage shoulder tap requests were done outside liquor stores and convenience stores in 19 Midwestern communities. The first 102 had requesters approach the first adult entering the store alone and the second 102 had the requesters approach the first casually dressed male entering the store alone who appeared to be between 21 and 30 years old. Of the random sample of adults that were approached in the first wave, 8% provided alcohol to the requesters. Of the second wave where just young men were approached, 19% provided alcohol to the requesters. This shows that the likelihood of underage youth obtaining alcohol through shoulder tapping increases substantially if the youth approach young men. The researchers also found that with the sample of adults, the odds of adults providing alcohol in urban areas were 9.4 times greater than in suburban areas.*

Tucker, J.S., Ellickson, P.L., Orlando, M., Martino, S.C., & Klein, D.J. (2005). Substance use trajectories from early adolescence to emerging adulthood: A comparison of smoking, binge drinking, and marijuana use. *Journal of Drug Issues, 35*, 307-332.

*Data from the RAND Adolescent Young Adult Panel Study was used to determine patterns of smoking, binge drinking, and marijuana use from early adolescence (age 13) to emerging adulthood (age 23). Early users were at relatively high risk for poor outcomes (lower rates of college graduation and higher rates of deviancy and substance use problems) at age 23*



*compared to consistent low-level users and abstainers, even if they reduced their use during adolescence. Youths who were not early users, but steadily increased their use over time, also tended to be at relatively high risk.*

Verdurmen, J., Monshouwer, K., Van Dorsselaer, S., Bogt, T.T., & Vollebergh, W. (2005). Alcohol use and mental health in adolescents: Interactions with age and gender- findings from the Dutch 2001 health behavior in school-aged children survey. *Journal of Studies on Alcohol*, 66, 605-609.

*This study examined the association between alcohol use and mental health in adolescence, specifically the interaction with age and gender. Data from the Dutch portion of the 2001 Health Behavior in School-Aged Children Survey was used (n=5,730; ages 12-16). The results showed that weekly alcohol use among adolescents was related to less withdrawn behavior and more delinquent, aggressive behavior. The relationships between weekly alcohol use and mental health problems were stronger for younger adolescents than for older adolescents. No interactions with gender were found. The authors conclude that especially at a young age, the weekly use of alcohol is associated with mental health problems.*

Watt, T., & Rogers, J. (2007). Factors contributing to differences in substance use among black and white adolescents. *Youth & Society*, 39, 54-74.

*This study examined alcohol and drug use by ethnicity and how differences in composition and processes may produce differences in adolescent use. The subsample for this study 81% white and 19% black (n=11413) ages 12-17, 48% who used alcohol in the past 12 months. The study confirmed existing research that alcohol use is lower for black than whites and for males than females. The current study test compositional controls such as family support, income, peer drinking and religion, although differences are common in understanding black-white differences in alcohol use, process differences (especially concerning influence from family and peers) are different for black and white families. Black females are less influenced by peers and black males are more influenced by supportive parents than whites.*

Wilson, N., Battistich, V., Syme, L., & Boyce, W.T. (2002). Does elementary school alcohol, tobacco, and marijuana use increase middle school risk? *Journal of Adolescent Health*, 30, 442-447.

*This study assessed whether alcohol, tobacco, and drug use in elementary school may have serious implications for continued use in middle school and beyond. The sample included 331 middle school students who had previously provided substance use data during elementary school. Findings showed that middle school alcohol use was almost three times as likely to occur if alcohol use had occurred in elementary school. Use of tobacco and marijuana in elementary school also greatly increased the likelihood of middle school use of these substances. These findings suggest that early use of alcohol, tobacco and drugs is associated with greater odds of later use. This has important implications for the timing of prevention programs,*

*suggesting that they should commence no later than elementary school, during the middle childhood years.*

Yu, M., & Stiffman, A.R. (2007). Culture and environment as predictors of alcohol abuse/dependence symptoms in American Indian youths. *Addictive Behaviors*, 32, 2253-2259.

*This study focused on American Indian youth, 205 who lived on a reservation and 196 who lived in an urban area (n=401). The youth were interviewed in person. The researchers wanted to find out about the moderating effects of cultural environments on the relationships between poor family and social environments and adolescent alcohol problems. Results showed that substance abuse problems of family members, peer misbehaviors, and participation in generic cultural activities all positively predicted adolescent alcohol use. Cultural pride/spirituality predicted fewer alcohol symptoms and religious affiliation moderated the effects of problematic peers and family members on adolescent alcohol symptoms.*

Ziyadeh, N., Prokop, L., Fisher, L. Rosairo, M., Field, A., Camargo, C., et al. (2007). Sexual orientation, gender, and alcohol use in a cohort study of U.S. adolescent girls and boys. *Drug and Alcohol Dependence*, 87, 119-130.

*This study examined survey data (n=9731) with ages 9-14 from males and females in the Growing Up Today Study in 1999. Studying sexual orientation and gender patterns in alcohol use, the findings were consistent with other large national studies. Youth in grades 7-12 with attractions to both sexes and girls with attractions to only the same sex were more likely to report risky alcohol use when compared to same gender peers with opposite sex attraction.*

## Enforcement, Law and Policy Factor Summary

A total of 23 research articles published between 2002 and 2007 were identified that focused on enforcement, laws or policy and underage drinking. These articles examined the effects of the change in the law for minimum drinking age from eighteen to twenty-one, the impact of zero tolerance laws and drinking and driving campaigns, and the enforcement of these policies. The literature examined current policy decisions regarding alcohol use by adolescents and examined alternative policy changes including increased alcohol taxes and bans on alcohol advertisements aimed at the youth market. The majority of the research reviewed concludes that although underage drinking has declined since the changes in minimum drinking age law, alcohol consumption by teens is still a major public health concern. Nearly half of the research studies cite that enforcement of the current laws is not effective or is inconsistent throughout the United States. Four studies report that corporate interest involved in the sale of alcohol is not helpful in reducing the sale of alcohol to those underage, and that recently introduced alcohol products appear attractive to underage adolescents. Five research studies, highlighting compliance checks, report retail outlets' attitudes that they believe they are not selling alcohol to minors. According to three studies, public awareness of the underage drinking problem is limited. Two of these studies cite that most adults surveyed favor increased taxes on alcohol for prevention and intervention, while tax increases have been limited over the last century. Recommendations from the literature call for changes in policy involving alcohol advertisement bans, increases in alcohol taxes to combat underage consumption, and increased and effective enforcement utilizing media campaigns to educate the public concerning public health problems associated with underage drinking. One author examines the history of alcohol use, the surrounding environment and the consequences to society, and stresses these elements are relevant to institute changes within the culture to address the public health problems associated with underage drinking. Overall, several of the researchers' recommendations include increased compliance checks, effective enforcement and training, and media campaigns focusing on underage drinking risks.

Over one-half of the literature examined the financial aspects of alcohol use by underage drinkers, both in terms of costs to society and corporate revenue. Why taxes on alcohol have remained so low was not addressed in the literature; overall, the articles cited the challenges associated with changes in policies, particularly with a range of vested interests noted.

## Enforcement, Law and Policy Factor Annotated Bibliography

Arnott, J. C. (2006). Police practice: Youth alcohol enforcement: A community project. *FBI Law Enforcement Bulletin*, 8-11.

*A county in Missouri conducted a trial of Youth Alcohol Enforcement, which contained 5 components. The first, proactive enforcement observed teens as they tried to make alcohol purchases, and if they were successful, both the teen and the clerk were brought up on charges. The second component, compliance checks, occurred in bars and restaurants with detectives watching and intervening to prevent and catch sales to minors. The third component, Badges in Business, placed detectives in retail outlets to watch for and intervene in underage purchase attempts. The fourth effort, patrol, directed detectives to patrol frequent party locations in unmarked cars. The last component, stings and stakeouts, occurred in undercover vehicles where detectives waited for youth to approach them to ask them to buy alcohol. The researcher found a large increase in the number of citations or arrests and the amount of time the community devoted to the effort of reducing underage drinking.*

Barry, R., Edwards, E., Pelletier, A., Brewer, R., Miller, J., Naimi, T., et al. (2004). Enhanced enforcement of laws to prevent alcohol sales to underage persons: New Hampshire, 1999-2004. *Morbidity and Mortality Weekly Report*, 53, 452-454.

*The Concord Police Department organized a 2-year enforcement campaign that conducted a quarterly compliance check of all off-sale licensees, enhanced administrative penalties for non-compliance, and implemented media coverage of enhanced enforcement activities. During enhanced enforcement, a significant drop in licensees that sold alcohol to minors occurred, and significant declines in current alcohol use and binge drinking occurred in high school students in Concord. In the rest of the state, sales to minors and student drinking remained stable. The authors report that increased compliance checks can reduce both sales to minors and underage drinking.*

Britt, H., Toomey, T.L., Dunsmuir, W. & Wagenaar, A.C. (2006). Propensity for and correlates of alcohol sales to underage youth. *Journal of Alcohol and Drug Education*, 50, 25-42.

*This study examined the propensity for illegal alcohol sales to underage youth at on and off premise establishments and the relationships between a variety of buyer, seller, and establishment characteristics and the propensity to sell to youth. The data is from multiple purchase attempts made from 741 retail alcohol establishments in the Complying with the Minimum Drinking Age project. The overall sales rate was 26% of sales to youth, and 74% of the outlets sold to youth in at least one of the multiple attempts. For the on-premise establishments, restaurants with a distinct bar area were less likely than restaurants without distinct bars to sell alcohol to underage youth. Establishments with full liquor licenses were less likely than those with wine/3.2 beer licenses to serve alcohol to minors. Purchase attempts made before 6pm were slightly more likely to result in a sale than those made after 6pm. For the off-premise establishments, some settings that had posted signs stating "no sales to minors"*

were less likely than those without posted signs to sell alcohol to pseudo-underage youth. Establishments with customers in line behind the buyer were more likely to sell alcohol to underage youth than establishments with no customers in line. The researchers did not find any associations between the likelihood of illegal sales to minors and server characteristics.

Blobaum, E., & Anderson, J., (2006). The impact of exposure and perceived disapproval of underage drinking. *Criminal Justice Studies*, 19, 171-192.

*This study used data from a national study (1999 NHSDA) for those youth not at legal drinking age <20 (n=25,612), exploring exposure to alcohol use and perceived disapproval of underage drinking at age of first alcohol use. Results found exposure through peers (same-age), neighborhood adults and friends was significant and positively associated with frequency of alcohol use. Data shows a statistically significant relationship between perceived levels of disapproval and the decision to engage in underage drinking. This study suggests that youth may be influenced through social modeling and argue that policy implications should be active media campaigns to inform and educate the public about risks of underage drinking rather than advertizing bans.*

Carpenter, C., Kloska, D., O'Malley, P., & Johnston, L. (2007). Alcohol control policies and youth alcohol consumption: Evidence from 28 years of Monitoring the Future. *The Berkeley Electronic Journal of Economic Analysis & Policy*, 7(1) (Topics), Article 25.

*Comparative analysis of the effects of Minimum Legal Drinking Age Zero Tolerance and beer taxes on drinking behaviors of High School seniors from 1976-2003 using Monitoring the Future survey data. Results showed a 4% decrease in youth drinking prior to the minimum drinking age law. The zero tolerance law showed a reduction of 1.5-2%. However, a negative and statistically significant relationship was found between state beer taxes and youth drinking during this period, showing that use went down when taxes went up. Underage drinking remains at or above 50% even after states made drinking under age illegal. The least utilized policy intervention for reducing youth alcohol consumption has been state beer taxes, as changes occur infrequently and typically are very small.*

Dent, C. W., Grube, J. W., & Biglan, A. (2005). Community level alcohol availability and enforcement of possession laws as predictors of youth drinking. *Preventive Medicine*, 40, 355-362.

*The sample included (n=16,694) 11<sup>th</sup> grade students completed measures on past 30 day alcohol use, binge frequency, frequency of school use, drinking and driving and riding in a car with a drinking driver. They were also asked about the frequency with which they obtained alcohol from various sources and whether or not they thought kids in their neighborhood would get caught by police if they were drinking. The goal of the authors was to examine the relationship between alcohol sources and youth drinking, as a function of community level variations of availability and enforcement of minor in possession laws. They found that illegal*

*sales directly related to all alcohol outcomes in youth, but that communities with higher enforcement had lower rates of two of the alcohol outcome: (30 day use and binge drinking).*

Evans-Whipp, T., Bond, L., & Toumbourou, J., (2007). School, parent and student perspectives of school drug policies. *The Journal of School Health, 77*, 136-146.

*In 2003, students in 7<sup>th</sup> and 9<sup>th</sup> grades (and their parents) in Washington State (n=1942) and Victoria (n=1957) completed surveys. School administrators also completed these surveys on school policy relating to drug, alcohol and tobacco policy (205 schools). Washington state policy relays an abstinence message while Victoria policy relays a harm-reduction message. Results showed that parents and students were aware of the drug policies, and when delivered effectively, policy messages associated with reduced student drug use at school. Abstinence messages and harsh penalties convey a coherent message to students. Strong harm-minimization messages were associated with reduced drug use, but weaker than those using abstinence messages. The policy has an impact on students only if these policies are perceived to be well enforced.*

Foster, S., Vaughan, R., Foster, W., & Califano, J., (2006). Estimate of the commercial value of underage drinking and adult abusive and dependent drinking to the alcohol industry. *Archives of Pediatrics & Adolescent Medicine, 160*, 473-478.

*This study was analysis of multiple national data-sets in 2001 (n=260,580) ages 12 and over to determine the amount of alcohol consumed and the cash value for underage and adult drinkers. Results found that short-term cash value of underage drinking to the alcohol industry was \$22.5 billion, or 17.5% of the total consumption expenditures for alcohol. The combined value of illegal underage drinking and adult pathological drinking is as at least \$48.3 billion, or 37.5 % of consumer expenditures for alcohol. Alternative estimates suggest that these costs may be closer to \$62.9 billion or 48.8% of consumer expenditures for alcohol. Thus, the alcohol industry may have compelling financial motives to maintain or increase underage drinking.*

Ferguson, S., & Williams, A. (2002). Awareness of zero tolerance laws in three states. *Journal of Safety Research, 33*, 293-299.

*This study examines differences in enforceability and likelihood of enforcement of zero tolerance laws and how they affect teenagers' knowledge and perceptions of these laws among youth ages 17-20 in New Mexico, New York and California. The approach used was a telephone survey (n=1120), 1/3 from each of the 3 states and evenly split among genders. Results showed low awareness of zero tolerance laws across all 3 states; also, those who knew the law did not believe the law was enforced.*

Giesbrecht, N., Greenfield, T., Anglin, L., & Johnson, S. (2004). Changing the price of alcohol in the United States: Perspectives from the alcohol industry, public health, and research. *Contemporary Drug Problems, 31*, 711-736.

*This article examines U.S. federal alcohol policy during the 1980-1990's, focusing on taxes and prices. This study included interviews (n=64) with key policy players (1996-1998) and archived materials. No legislation was enacted in these two decades, so the retail price of alcohol has been declining steadily compared with the Consumer Price Index (CPI). Arguments against taxation were usually business related concerning impact on communities and job losses, while the public health argument was if you raise taxes fewer kids will drink, die on highways and drop out of school. Results found that the greatest support for policy change was warning labels (90%) and the least support was raising the legal drinking age (36%), and eight out of eleven supporting an increase in taxes on alcoholic beverages (47%). Archival data found that four out of five adults support alcohol tax policy when revenue is stipulated with prevention and treatment.*

Hollingworth, W., Ebel, B., McCarthy, C., Garrison, M., Christakis, D. & Rivara, F. (2006).

Prevention of deaths from harmful drinking the United States: The potential effects of tax increases and advertising bans on young drinkers. *Journal of Studies on Alcohol*, 67, 300-308.

*This study examined the reduction in harmful drinking-related deaths and potential life lost years from interventions that are focused on young adults aged 20 (n=4,049,448) from previous data. Results found that beer tax increases if they kept pace with inflation (since 1951, would be \$67.29 per barrel in 2005 rather than \$18 per barrel) they predict heavy episodic drinking would decrease 24.4% in men and 13.1% in women. Death prevention would equal 1,490 lives and 27,352 life-years would be saved. More effective would be a complete media-advertising ban, which would prevent 7,610 deaths, 60% for those under age fifty. With a partial media ban, results are equal to numbers represented in the beer tax increases. Overall, the author's estimate that excise tax on alcohol would have a modest effect on alcohol-related mortality and a media ban would be slightly more effective and increased taxes maybe a more feasible intervention.*

Jernigan, D. (2005). The USA: Alcohol and young people today. *Addiction*, 100, 271-273.

*The author provides an overview of alcohol policy and alcohol advertising on youth initiation of alcohol and the slow pace of research and policy change to intervene and prevent alcohol dependence. Alcohol companies backed alcopops with advertising support of \$169 million in 2002; a federal survey began measuring youth consumption of alcopops in 2003 finding that 30% of 8<sup>th</sup> graders, 50% of 10<sup>th</sup> graders and 55.8% of 12<sup>th</sup> graders had tried alcopops, while alcohol advertisers continue to claim that alcohol advertising has no effect on youth.*

Miller, T., Levy, D., Soucer, R., & Taylor, D. (2006). Societal Costs of Underage Drinking. *Journal of Studies on Alcohol*, 519-528.

*This study examined the costs of alcohol related problems and underage drinking. In 2001 youth age 14-20 comprised of the 12.3% of the population and consumed from 16-20% of alcohol. Estimated losses from alcohol consumed were \$18.1 billion and violence accounted for*

*more than half of that figure. The overall societal cost for underage drinking equaled \$3 per drink, much more than the \$.10 estimated in taxes from an average alcohol purchase price. The author cites loopholes in legal drinking age laws and the lack of enforcement as contributors to the problem of underage drinking.*

Miller, T., Snowden, C., Birckmayer, J., & Hendre, D. (2006). Retail alcohol monopolies, underage drinking, and youth impaired driving deaths. *Accident Analysis & Prevention*, 38, 1162-1167.

*This study uses existing survey and census data to find out if states with retail alcohol monopolies have lower underage drinking rates and fewer alcohol-impaired youth driving fatalities. Consumption rates for 6-10<sup>th</sup> graders surveyed was 74% non-drinkers in the last month, but of those who drank alcohol, only 6.2% drank beer only and 72% drank some spirits. This study found that in states with a retail monopoly over spirits or wine and spirits, an average of 14.5% fewer high school students reported drinking alcohol and 16.7% fewer reported binge drinking in the past 30 days than high school students in non-monopoly states. The lower consumption rates in monopoly states were associated with a 9.3% lower alcohol impaired driving death rate under 21 in monopoly states when compared with non-monopoly states.*

Montgomery, J. M., Foley, K. L., & Wolfson, M. (2006). Enforcing the minimum drinking age: State, local and agency characteristics associated with compliance checks and Cops in Shops programs. *Addiction*, 101, 223-231.

*A sample of 920 local law enforcement agencies were interviewed in 1999 about compliance checks and Cops in Shops programs on state level policies, agency resources and community demographics. The goal was to obtain typical characteristics of agencies implementing the two programs. Compliance checks were more common than Cops in Shops programs, especially in larger communities. College communities were more likely to have Cops in Shops programs. Underage tobacco sale enforcement is highly linked with underage alcohol sale enforcement. Enforcement overall is linked to local law enforcement resources, with agencies with special community policing departments more likely to implement Cops in Shops.*

Paschall, M., Grube, J., Black, C., & Ringwalt, C. (2007). Is commercial alcohol availability related to adolescent alcohol sources and alcohol use? Findings from a multi-level study. *Journal of Adolescent Health*, 41, 168-144.

*This study examined compliance by retail establishments related to underage sales laws and the perceived ease of obtaining alcohol and alcohol use, using student surveys from 11<sup>th</sup> graders (n=3332). In contrast to previous studies, the findings signify that alcohol availability is not directly related to underage alcohol use and binge drinking. The findings also suggest that availability has an indirect effect from the perception that alcohol is very easy to obtain. The data also showed a high reliance on social alcohol sources by students.*



Richter, L., Vaughan, R.D. & Foster, S.E. (2004). Public attitudes about underage drinking policies: Results from a national survey. *Journal of Public Health Policy*, 25, 58-76.

*This study sought to determine whether and to what extent public support for an alcohol control policy might vary depending on the specific details of the policy and how the option is framed. If respondents reported not being in favor of a particular policy option, they were asked to explain their reasons for opposing it. Telephone interviews (n=900) were conducted with adults ages 21 years or older across the United States. The findings show strong public support for a broad range of policies aimed at controlling underage drinking. The study found relatively strong support for most policy options; more by females than males; by African Americans than by whites; by older than younger adults; by those with lower income and less education; and by those who drink alcohol less frequently. Frequency of alcohol use was one of the strongest and most consistent predictors with more frequent drinkers likelier to withhold support for alcohol control policies. Policy option supporters were more likely to report underage drinking as a problem in their own community and to report feeling personally concerned about underage drinking. Overall support was moderate to strong for most of the policy options, but weakest for policies or versions of policies that would result in restrictions on adults' access to alcohol. Support was strongest for the option of prohibiting alcohol sales and prohibiting alcohol use in public places such as beaches, zoos, and parks than for the option of prohibiting sales and alcohol use at community events such as sporting events, concerts, and fairs. Support was relatively low for increasing alcohol taxes. Most respondents were more in favor of reducing underage drinking through better enforcement and more severe penalties than through the implementation of new regulations.*

Wagenaar, A. C., Erickson, D. J., Harwood, E. M., & O'Malley, P. M. (2006). Effects of state coalitions to reduce underage drinking: A national evaluation. *American Journal of Prevention Medicine*, 31, 307-315.

*Ten states were funded as part of the Reducing Underage Drinking project and were given the task of changing policy and environmental norms that allow youth access to alcohol. The intention of the project was to increase media coverage and public awareness, leading to policy change and reductions in teen drinking and alcohol-related consequences. The researchers used media coverage, legislation, behaviors and mortality statistics to measure the effectiveness of the coalitions. While many changes were made in terms of media coverage, awareness and policy, no significant changes were observed in individual teen behaviors surrounding alcohol.*

Wagenaar, A.C., Toomey, T.L., & Erickson, D.J. (2005). Complying with the minimum drinking age: Effects of enforcement and training interventions. *Alcoholism: Clinical and Experimental Research*, 29, 255-262.

*This article summarizes the proceedings of a symposium that presented the design and outcomes from a multi-community controlled time-series trial entitled Complying with the Minimum Drinking Age. The research tested two approaches for enhancing the effectiveness of the legal drinking age policy. The two approaches were training of alcohol retailers and police*

*enforcement at alcohol establishments. Results of the trial showed minimal effects of the brief version of Alcohol Risk Management training for alcohol outlet management, and significant effects of enforcement checks in reducing sales of alcohol to youths. A concentration of effects in specific alcohol outlets experiencing an enforcement check with little diffusion of effects to other outlets in the community not experiencing a check, and a substantial decay of enforcement effects over the three months following a specific check. In summary, results showed significant and substantial specific deterrence effects and little training effects.*

Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Preventing youth access to alcohol: Outcomes from a multi-community time-series trial. *Addiction, 100*, 335-345.

*The researchers tested the Complying with the Minimum Drinking Age using a quasi-experimental, multiple time point, and community trial, in 20 cities in the Midwest. This instrument tested the effects of management training at retail alcohol establishments and enforcement checks on decreasing the number of sales to minors. Training involved 2 hours of training on 19 model alcohol policies and practices, which were designed to create an environment that supports responsible alcohol serving. The tested outcome of reduced alcohol sales to minors was only partially affected. The training did not serve to decrease sales, and actually increased sales to minors over time. The enforcement checks did decrease sales to minors immediately following, however, this effect dissipated over time, which supports more frequent enforcement checks.*

Williams, J. (2005), Habit formation and college students' demand for alcohol. *Health Economics, 14*, 119-134.

*An investigation of habit formation of college students' alcohol use in relation to BAC laws when they were in high school, using the College Alcohol Study data from 1997 and 1999. The researchers found that problematic drinking can be addressed through policies that reduce teen drinking such as minimum age, BAC, beer tax and restricted access to alcohol around campus.*

## Prevention and Intervention Factor Summary

Based on the review of 32 articles published between 2002 and 2008 pertaining to adolescent alcohol prevention and interventions, nine themes are identified. These include setting, high-risk youth, personality, skills and motivation, education, cultural competence, parent and family, sport and physical fitness, and web/technology. These studies provide a dramatic range of different interventions that have been implemented and evaluated.

Several studies showed that participation in prevention programs during non-school hours was effective in reducing alcohol use. A majority of the studies show the greatest success with high-risk youth. One study demonstrated that personality-targeted interventions were particularly effective in preventing the growth of binge drinking, especially with students who had a 'sensation-seeking' personality. Increasing motivation and targeting self-regulation skills were found, in a few studies to benefit students who had the highest exposure to drinking. Several interventions focus on an educational route in terms of raising youths' awareness about laws and penalties of underage drinking and developing adolescents' ability to analyze and cope with alcohol advertising. Promoting parental involvement in prevention activities was shown by five studies to reduce the misuse of alcohol among youth. Another viable approach found in two studies to prevent alcohol use is to negatively link physical activity and substance use.

The importance of changing the culture of alcohol use is cited throughout the recommendations of the intervention literature. Interventions tend to focus on small segments or aspects of the lives of adolescents which may bring short-term or specific effects but are not fully effective in the absence of other, more comprehensive efforts. Interventions are recommended to be culturally competent, depending on what population is targeted. Including the school, community, and family members are cited as necessary for a comprehensive, culturally competent intervention to be successful. Web-based interventions have become more popular, an important factor for keeping up with technological innovation and finding new ways to reach people when addressing multiple societal problems.

Most of the interventions have not been evaluated using follow-up data. Data most often comes from surveys given directly after the intervention has taken place, making it hard to determine the ultimate long-term effectiveness.

## Prevention and Intervention Annotated Bibliography

Alter, R.J., Jun, M.K., & J-McKyer, E.L. (2007). ATOD prevention programming in the non-school hours and adolescent substance use. *Journal of Drug Education, 37*, 365-377.

*This study examined the relationship between participation in prevention activities (after school programs, summer camps, and prevention related extracurricular clubs) in the non-school hours and substance use. Statewide (Indiana) prevention efforts were made to develop these prevention aspects and a total of 98,442 6<sup>th</sup>-12<sup>th</sup> grade students from 296 public and non-public Indiana schools participated in the survey. Findings showed that participating middle school students were less likely to have reported use of tobacco than their non-participating peers. Also, participation in prevention activities during the non-school hours was related to a lower likelihood of alcohol use among high school students.*

Bewick, B.M., Trusler, K., Barkham, M., Hill, A.J., Cahill, J., & Mulhern, B. (2008). The effectiveness of web-based interventions designed to decrease alcohol consumption: A systematic review. *Preventive Medicine, 47*, 17-26.

*This article reviewed the literature to determine the effectiveness of web-based interventions designed to decrease consumption of alcohol and/or prevent alcohol abuse. The authors found that although recent publications suggest there has been an increase in the number of web-based interventions available, there is a relatively small number of published data on the effectiveness of the interventions. However, process studies do show positive feedback from users. More effort should be made to evaluate these interventions before making them available to the public considering their potential to reach a wide audience at low cost. Further research is needed to demonstrate the generalizability of these interventions to many populations and settings. More research is also needed to identify elements that are key to outcomes and if different elements are needed to engage low and high risk drinkers.*

Brown, S.A., Anderson, K.G., Schulte, M.T., Sintov, N.D., & Frissell, K.C. (2005). Facilitating youth self-change through school-based intervention. *Addictive Behaviors, 30*, 1797-1810.

*This study evaluated the effectiveness of Project Options, a school based voluntary secondary intervention for alcohol use. The intervention consisted of motivational enhancement techniques, normative feedback, and skills training within a developmentally sensitive framework designed to target adolescent drinkers experiencing common developmental transitions (e.g., increased independence, autonomy, acquisition of adult responsibilities). The sample consisted of 1,254 high school students with a history of lifetime drinking. Results of the evaluation showed that youth who had the highest exposure to drinking seemed to benefit most from the intervention. Participation in Project Options increased their odds of cutting down drinking over 1¾ times compared to youth who did not self-select into the intervention and increased the likelihood of quit attempts by almost 2½ times. Participation did not significantly*

*influence youth attempts to cut down or quit drinking for the limited or moderate experience drinkers.*

Cho, H., Hallfors, D. D., & Sanchez, V. (2005). Evaluation of a high school peer group intervention for at-risk youth. *Journal of Abnormal Child Psychology*, 33, 363-374.

*A total of 1,218 9<sup>th</sup> and 11<sup>th</sup> grade students participated in Reconnecting Youth, a social influence model prevention program in two geographically and ethnically diverse locations. Reconnecting Youth is a one-semester, for credit class for high risk students that uses 55 core and 24 booster lessons to provide youth with a sense of personal control, coping behaviors, improved communication and relationship skills. Using a control group, the researchers did not find support for the long term effectiveness of this program, and actually found negative effects in terms of GPA, anger, school connectedness, peer bonding and high-risk behaviors, to include alcohol use. It appears that alcohol use increased in the same manner for both the control and experimental groups.*

Coffman, D.L., Patrick, M.E., Palen, L.A., Rhoades, B.L. & Ventura, A.K. (2007). Why do high school seniors drink? Implications for a targeted approach to intervention. *Prevention Science*, 8, 241-248.

*The sample for this study was 1,877 12<sup>th</sup> graders from the 2004 Monitoring the Future survey. The researchers were seeking to find out if it is possible to identify person-specific motivational profiles for alcohol use among high school seniors, if the motivational profiles differ for boys and girls, and whether drinking initiation, frequency of drunkenness, and drinking during the daytime are associated with individuals' motivational profiles. The researchers found four profiles of drinking motivations: thrill-seekers, multi-reasoners, experimenters, and relaxers. Multi-reasoners were more likely to have early initiation of alcohol use, past year drunkenness, and drinking before 4 P.M. than experimenters. Findings were similar across gender. The authors suggest that these results be used to inform prevention programming by tailoring program content to the motivational profiles they found.*

Coleman, L. & Cater, S. (2007). Changing the culture of young people's binge drinking: From motivations to practical solutions. *Drugs: Education, Prevention & Policy*, 14, 305-317.

*This study explored young people's own opinions about how the 'drinking to get drunk' culture can be changed. Forty interviews and 4 focus groups were completed in Caerphilly Borough County, South Wales with participants ages 18-25 years old. The study explored whether young people viewed binge drinking as a real problem and what they thought could be done to reduce binge drinking. The study found that most young people did not classify themselves as binge drinkers, with drinking considered to be part of a normal and fun existence. Some people thought nothing would work to stop binge drinking but others said 'shock tactics' that young people could relate to, witnessing and reflecting on antisocial and embarrassing behavior, acknowledging the likelihood of regretted sexual experiences, and greater enforcement of not purchasing alcohol when drunk could have an impact. The authors suggest that a prerequisite*

*for any effective educational intervention would be to have young people recognize the dangers of binge drinking as applicable to themselves. The vast majority of young people consider binge drinking to be normal which shows the extent of the issue and how deeply entrenched the culture of heavy drinking is for many young people.*

Conrod, P.J., & Castellanos, N. (2008). Personality targeted interventions delay the growth of adolescent drinking and binge drinking. *Journal of Child Psychology and Psychiatry*, 49, 181-190.

*This study aimed to explore whether intervening upon personality risk early in adolescence could delay growth in drinking and binge drinking in high-risk youth. 368 youth from grades 9 and 10 with a median age of 14 were recruited to receive either a personality targeted intervention or no intervention. Findings showed that at the 6 month follow-up, the control group showed a greater increase in drinking than the intervention group. Interventions were particularly effective in preventing the growth of binge drinking in those students with a 'sensation seeking' personality.*

D'Amico, E., & Edelen, M., (2007). Pilot test of Project CHOICE: A voluntary afterschool intervention for middle school youth. *Psychology of Addictive Behavior*, 21, 592-598.

*Pilot study of brief, voluntary intervention for younger adolescents called Project CHOICE. Students at two middle schools completed 4 surveys over two years, and year two included intervention of 9-12 sessions (n=64), with a matched control sample (n=264). Results showed that the intervention participants reported lower rate of alcohol use and lower perceptions of friends' use.*

D'Amico, E.J., Anderson, K.G., Metrik, J., Frissell, K.C., Ellingstad, T. & Brown, S.A. (2006). Adolescent self-selection of service formats: Implications for secondary interventions targeting alcohol use. *The American Journal on Addictions*, 15, 58-66.

*This study examined the rates of self-selection into three formats of the Project Options alcohol intervention: group, individual, and website. The authors examined the differences between intervention participants and the general school population across the three formats. A sample of 6000 students from grades 9-12 were surveyed over a 4-year period. Project Options was based on a two stage model of behavior change for adolescent substance involvement: increasing motivation and generating resources for alternative activities and targeting self-regulation skills and motivation for maintenance of behavior efforts. Findings showed that students who attended Project Options were slightly younger, more likely to be male, more ethnically diverse, and have used alcohol in comparison to the school population of youth. The majority of youth who chose to attend Project Options self-selected the group format, although 1 in 6 students chose individual and web based formats for participation. About 17% of the youth who selected Project Options did so utilizing the individual or computer based sessions. Girls were more likely than boys to use these two formats compared to the group format. Youth*

*from minority populations and mixed racial/ethnic backgrounds disproportionately chose the individual services.*

D'Amico, E.J., Ellickson, P.L., Wagner, E.F., Turrise, R., Fromme, K., Ghosh-Dastidar, B., et al. (2005). Developmental considerations for substance use interventions from middle school through college. *Alcoholism: Clinical and Experimental Research, 29*, 474-483.

*This article describes four interventions that represent research on novel and developmentally sensitive interventions. Project CHOICE demonstrated that the majority of middle school students would choose to participate in an intervention about alcohol and other substances, especially when it was marketed as a "discussion group." The importance of involving the community when developing and testing interventions for middle schools was highlighted. A study of Project ALERT showed that by putting more emphasis on alcohol misuse and promoting parental involvement alcohol misuse and cigarette and marijuana use were reduced. The Teen Intervention Project showed a reduction in the association between reckless personality traits and drinking in its participants. Findings illustrated the variability among adolescents in school-based interventions. A college student intervention showed that by educating parents about the incidence and consequences of college alcohol use and providing specific strategies to improve parent-teenager communication, college student drinking was decreased during the first year of college. These interventions highlight the importance of developmental factors as students transition from middle school to high school to college. Potentially important factors in the transitions include personal motivations, legal and environmental milestones, and cognitive development. Shifts in the importance of parental approval, peer acceptance, and academic success greatly influence substance use and willingness to participate in prevention programs.*

Elder, R., Nichols, J., Shults, R., Sleet, D., Barrios, L., & Compton, R., (2005). Effectiveness of school-based programs for reducing drinking and driving and riding with drinking drivers. *American Journal of Preventive Medicine, 28*(5S), 288-304.

*This review of the literature focused on school programs for reducing drinking and driving or riding in three types of interventions: in-school instructional, peer organizations (e.g., SAAD programs), and social norming campaigns. Results for the in-school (grades 8-12) instructional programs (n=18) found sufficient evidence for reducing riding with a drunk driver among students but not for drunk driving outcomes. The high-school SADD programs (n=2) found insufficient evidence for reducing either desired outcome. College age social norming programs (n=2) found insufficient evidence for reducing either outcome.*

Ellickson, P.L., McCaffrey, D.F., Ghosh-Dastidar, B., & Longshore, D.L. (2003). New inroads in preventing adolescent drug use: Results from a large-scale trial of Project ALERT in middle schools. *American Journal of Public Health, 93*, 1830-1836.

*Project ALERT is known as one of the most successful evidence-based programs. Its goal is to motivate students against using drugs and to give them the skills they need to translate that motivation into effective resistance behavior. The original Project ALERT had a modest initial*

*impact on alcohol use which disappeared by 8<sup>th</sup> grade and effectively prevented or reduced both cigarette and marijuana use among 8<sup>th</sup> graders (but did not help committed smokers). This study evaluated the revised Project ALERT after adjustments were made according to suggestions from previous evaluations. Revisions included more emphasis on curbing alcohol misuse (as opposed to any use at all), finding a way to help the committed cigarette smokers, and bringing parents into the prevention process. Results showed that the revised curriculum replicated and improved upon the original program's effectiveness for middle school students. It curbed both cigarette and marijuana use. It also produced new and significant effects for alcohol misuse, for adolescents at risk for marijuana use, and for baseline users and nonusers of cigarettes. The new reductions in alcohol misuse apply to the highest risk early drinkers. The program did not curb alcohol initiation or current use. The authors suggest that this may be because curbing any or moderate alcohol use is difficult in societies where drinking is widespread and socially acceptable. Prevention programs stand a greater chance of making progress on less socially acceptable forms of drinking, such as problematic use.*

Flay, B.R., Graumlich, S., Segawa, E., Burns, J.L., & Holliday, M.Y. (2004). Effects of two prevention programs on high-risk behaviors among African American youth. *Archives of Pediatric and Adolescent Medicine*, 158, 377-384.

*This study tested the efficacy of 2 programs that aimed to reduce high-risk behaviors among inner city African American youth in Chicago. This longitudinal study involved students from grades 5 through 8. One of the curricula was the social development curriculum which had 16-21 lessons a year focusing on social competence skills necessary to manage situations in which high risk behaviors occur. The other curriculum, the school/community intervention added school wide and community components to the first curricula. The two programs significantly reduced violent behavior for boys (compared to the control group). The expanded curriculum was significantly more effective for boys than the initial one. There were no significant effects for the girls.*

Glantz, K., Maddock, J., Shigaki, D., & Sorensen, C., (2003). Preventing underage drinking: "A roll of the dice." *Addictive Behaviors*, 28 p 28-38.

*This study examined the efficacy of a video entitle "Underage Drinking: A Roll of the Dice." The video raises consciousness about laws and penalties of underage drinking. The study was conducted in 19 school and community groups. The methodology consisted of a survey (pre/post (300 youth (11-18) and adult)) and a subsequent follow-up survey (n= 220). Outcome measures included knowledge, perceived risk, perceived responsibility and perceived acceptability. For youth, 64% reported that their parents had discussed drinking with them and 40% believed their parents expected them not to drink until 21. For adults, 68% reported discussing drinking with children and 1/3 expected children not to drink until 21. Results showed a short term increase in knowledge perceived risk and responsibility and a decrease in perceived acceptability of underage drinking; this effect diminished somewhat between post and follow-up, and additional follow-up materials did not enhance retention of material. The authors*



*suggest that criminal and civil consequences of underage drinking are not common knowledge, and one-time exposure can make a difference in awareness and attitude change.*

Goldberg, M.E., Niedermeier, K.E., Bechtel, L.J., & Gorn, G.J. (2006). Heightening adolescent vigilance toward alcohol advertising to forestall alcohol use. *Journal of Public Policy and Marketing, 25*, 147-159.

*This article evaluated the effect of an antialcohol intervention program for adolescents to help them develop negative attitudes toward alcohol advertising, to develop strategies for coping with the techniques used in alcohol advertisements, and to reduce their intentions to drink in the future. The intervention focused on persuasion knowledge and tried to develop adolescents' ability to analyze and cope with alcohol advertising. The goal was to improve their understanding of advertisers' motives and persuasive strategies and to thereby reduce their intentions to drink. The basic idea was that getting youths to understand advertisers' motives and tactics better would result in heightened vigilance and a reactance response. Results showed that students who were subjected to the intervention demonstrated heightened persuasion knowledge about alcohol advertising. The knowledge was especially pronounced for students who had experience with alcohol. Intervention students developed heightened persuasion-coping behaviors. They reported that they would be more vigilant and counterargue more when confronting alcohol advertising in the future. They also reported more critical attitudes toward alcohol advertising and advertisers. Among students who had drunk alcohol, those who had the intervention were significantly less likely to indicate they would drink in the future. In summary, the authors found evidence that increasing persuasive knowledge and eliciting critical attitudes can be effective in alcohol resistance programs- developing skills for coping with persuasive messages should increase students' ability to resist the messages in alcohol advertising.*

Griffin, K.W., Botvin, G.J., Nichols, T.R., & Doyle, M.M. (2003). Effectiveness of a universal drug abuse prevention approach for youth at high risk for substance use initiation. *Preventive Medicine, 36*, 1-7.

*The goal of this study was to examine the effectiveness of a universal drug prevention approach for youth at high risk for early onset of substance use based on their friends' use of alcohol and tobacco and poor grades in school. The prevention program was called Life Skills Training and activities included teaching drug resistance skills, norms against substance use, and material designed to facilitate the development of important personal and social skills. The findings of this evaluation showed that the youth at risk for substance use initiation participating in the prevention program reported lower levels of smoking, alcohol use, inhalant use, and polydrug use when assessed one year after the intervention program. This study shows that universal prevention programs can be effective for a range of youth along a continuum of risk.*

Komro, K.A., Perry, C.L., Veblen-Mortenson, S., Farbaksh, K., Toomey, T.L., Stigler, M.H., et al. (2008). Outcomes from a randomized controlled trial of a multi-component alcohol use preventive intervention for urban youth: Project Northland Chicago. *Addiction*, 103, 606-618.

*This study tested the effectiveness of an adapted alcohol use preventive intervention for an urban, low-income, multi-ethnic setting. The sample consisted of 5,812 African American and Hispanic youth beginning in 6<sup>th</sup> grade from inner city Chicago schools. Project Northland Chicago included classroom, parent, extracurricular service projects and community organizing components. The intervention was not effective in preventing or reducing alcohol use among urban youth. The only suggestion of effectiveness was for the home-based programs (in regards to alcohol and drug use) and community organizing (in regards to a trend of reduced youth access to alcohol from commercial sources). Project Northland had previously been effective in reducing alcohol use by 20-46% among youth living in rural communities in northern Minnesota but was not effective in this case when adapted to a urban, disadvantaged environment.*

Komro, K.A., Perry, C.L., Veblen-Mortenson, S., Farbaksh, K., Kugler, K.C., Alfano, K.A., et al. (2006). Cross-cultural adaptation and evaluation of a home-based program for alcohol use prevention among urban youth: The "Slick Tracy Home Team Program." *The Journal of Primary Prevention*, 27, 135-154.

*A cross-cultural adaptation of the "Slick Tracy Home Team Program" for racially and ethnically diverse youth and their families living in Chicago was evaluated in this study. The research questions included whether the adapted program could achieve overall high participation levels among families in a large urban area as well as across various subgroups (race/ethnicity/language spoken at home) and whether improvements in proximal risk and protective factors related to alcohol use onset would be observed among the students. The revised "Slick Tracy" Program includes four 30-minute classroom sessions led by peer leaders and classroom teachers, two classroom based sessions to create posters on alcohol use prevention themes, a poster fair held at school for students to display their posters to family and community members, and four home based sessions. A sample of 3,623 6<sup>th</sup> graders from 60 Chicago public schools participated in the evaluation. Results showed that the program was able to achieve high participation rates across a group of diverse, inner-city, low income youth and families. The highest participation was achieved among families with 6<sup>th</sup> grade girls, with both parents living together, among students who were enrolled in the free or reduced lunch program, among families who speak Spanish or other languages in the home compared with families who speak English in the home and for families who received the translated booklets. No significant differences in participation by race or ethnicity were found. Students in the intervention group were less likely to think that youth who drink are more grown up, popular, and have more friends. They were more likely to think that negative consequences would occur if they were to drink alcohol. No differences were found on parent/child communication, family alcohol discussions, and alcohol behaviors and intentions. The authors conclude that these results suggest the generalizability of the program to inner city, low-income populations.*

Komro, K., & Toomey, T., (2002). Strategies to prevent underage drinking. *Alcohol Research & Health, 26*, 5-14.

*A review of prevention strategies to combat underage drinking from school-based, after-school, family involved and policy implementations' and highlighting the Midwestern Prevention Project and Project Northland. The authors conclude that alcohol behavior for adolescents is difficult to change because alcohol use is so ingrained within the US culture, and is a part of daily life in their homes and communities. Knowledge of effective intervention in school-based programs has grown considerably over the past decade, but these programs on their own may not reduce underage drinking, rather than need to be combined with other types of intervention and strategies (i.e. family and policy).*

Matthews, A.E., Werch, C., Michniewicz, M., & Bian, H. (2007). An impact evaluation of two versions of a brief intervention targeting alcohol use and physical activity among adolescents. *Journal of Drug Education, 37*, 401-416.

*This study evaluated the impact of two new versions of the Project SPORT program, a personalized one-on-one consultation for adolescents. The new versions were a brief interactive CD-ROM and a brief small group consultation. A total of 217 high school students took part in the CD-ROM evaluation. The majority of adolescents found the CD-ROM intervention acceptable. Females who received the CD-ROM were much more likely than males to report a commitment to avoiding substance use, have positive images and beliefs related to alcohol avoidance, and to link use avoidance with other risk behaviors and physical activity with other health behaviors. A sample of 248 high school students participated in the small group format evaluation. Again, the majority found this version acceptable. Adolescents participating in the small group discussions were more likely than the control group to report a greater commitment to engaging in physical activity, report positive image/prototypes of those who get regular physical activity, and to link getting regular exercise and other health promoting behaviors. Intervention participants were more likely to link too much alcohol use with other negative behaviors. The authors conclude that based on the evaluations, it appears that Project SPORT can be successfully reformatted from a one on one consult into both an interactive CD-ROM and small group intervention.*

Merrill, J.C., Pinsky, I., Killeya-Jones, L.A., Sloboda, Z., & Dilascio, T. (2006). Substance abuse prevention infrastructure: A survey-based study of the organizational structure and function of the D.A.R.E. program. *Substance Abuse Treatment, Prevention, and Policy, 1*, 1-25.

*This study was designed to understand the parameters of the D.A.R.E. program in order to determine what lessons could be used in the development of other types of national infrastructures for community based prevention services. Telephone surveys were conducted with 50 state D.A.R.E. coordinators, focus groups were done with local D.A.R.E. officers and mentors, and interviews were done with national D.A.R.E. office staff. Strengths of the D.A.R.E. program were uniform training and means for rapid dissemination, continuing education*

*mechanisms, mechanisms for program monitoring and fidelity of implementation, branding, and for some states, predictable and consistent financing. Weaknesses included unstable funding for some states and the failure to incorporate components for the continual upgrading of curricula reflecting research evidence and “principles of prevention.” The authors conclude that the major strength of D.A.R.E. is its natural affiliation to local law enforcement agencies through state coordinators that have made national and international establishment possible.*

Metrik, J., Frissell, K.C., McCarthy, D.M., D’Amico, E.J., & Brown, S.A. (2003). Strategies for reduction and cessation of alcohol use: Adolescent preferences. *Alcoholism: Clinical and Experimental Research*, 27, 74-80.

*This study seeks to improve the understanding of adolescent change processes in alcohol use by examining the perceptions of high school students. A sample of 1,069 participants from ages 12-18 completed a survey on change strategies for cutting down and stopping alcohol use. The five strategies that youth generated most frequently were environmental exposure management, informal interpersonal supports, formal aids, behavioral self-management, and alternative activities. The youth considered behavioral self-management strategies more useful for the goal of reduction of drinking and formal aids more useful for cessation efforts when changing their own drinking. Cognitive strategies, community programs, and education were seldom identified as aids by the youth. In efforts to help others decrease alcohol use, the youth made recommendations for the top 5 strategies they considered for personal change. Informal interpersonal supports, behavioral self-management, and alternative activities were the popular methods that youth considered for altering their own drinking and advice for friends. Adolescents were more likely to suggest controlling exposure to risk situations and people, formal aids, and community/program enforcement methods for personal changes and to suggest more internal or dispositional changes such as educational methods for others.*

Peele, S., (2006). Reducing harms from youth drinking. *Journal of Alcohol and Drug Education*, 50, 67-87.

*This article is an exploration of prevention programs focusing on harm-reduction to impose a moderate drinking model on cultures, focusing on American adolescent and college cultures. The data reviewed in this study show that the abstinence prevention strategies introduced in middle and high schools have not reduced alcohol dependence and binge drinking, and problem drinking is increasing even though overall drinking is declining. Recent American epidemiological research from the Nation Survey on Drug Use and Health found that youthful binge drinking has recently continued to exist at later ages than was previously found.*

Schoech, D. (2007). Developing a virtual community to prevent teen substance abuse: Lessons learned. *Journal of Technology in Human Services*, 25, 81-100.

*This article examines a virtual community with the purpose of determining the proven components of substance abuse prevention in ‘real’ communities that can be effectively transferred into ‘virtual communities.’ The article discussed lessons learned from this virtual*

*community. Feedback from teens showed that informational exercises worked best with older teens in a group setting with an adult leader. Games, music, and stories worked best with younger teens who had shorter attention spans. The author showed that agencies often lack the technology infrastructure needed for an informational technology project, working in a substance abuse recovery environment presents special issues (i.e., physical security of equipment and working with teens with behavioral problems), working with a diverse group of teens is difficult and teens are demanding and erratic users (i.e., they look for high interest/action sites). The author acknowledges that documenting the effectiveness of online prevention programs is extremely difficult. The author concludes that virtual communities are important to develop because our society will continue to become more technologically sophisticated and this is an important method of reaching people to address multiple human problems.*

Sharma, M. (2006). Editorial: Making effective alcohol education interventions for high schools. *Journal of Alcohol and Drug Education, 54*, 1-4.

*A review of prevention programs in schools in 1996 found a median of 87.6% of states taught a health education course in grades 6-12. The knowledge coverage about alcohol and other drugs ranged from 97-100% of those with a health education course. However the amount of instruction time given was insufficient, and theory based interventions are needed in the high schools. A useful component in high school interventions is cited as peer support groups. Ideally interventions of alcohol must start in middle school because the behavior is beginning at that time. Recommendations for effective prevention also include building societal disapproval regarding alcohol consumption, having community support and using an active mass media component.*

Stigler, M.H., Perry, C.L., Komro, K.A., Cudeck, R., & Williams, C.L. (2006). Teasing apart a multiple component approach to adolescent alcohol prevention: What worked in Project Northland? *Preventive Science, 7*, 269-280.

*This study was a secondary analysis of the effects of the intervention strategies used in Project Northland. Project Northland was a community wide, multi-level intervention trial conducted in the 1990's to prevent and reduce alcohol use among students in rural Minnesota where the majority of the population is white. The analysis focused on the first phase of the intervention which included five components: classroom curricula, peer leadership, youth-driven/led extracurricular activities, parent involvement programs, and community activism. The secondary analysis found the strongest effects on adolescent alcohol use correlated with the youth planners of extracurricular activities and the parent program components of the intervention. The classroom curriculum was shown to be moderately effective, and the community activism was shown to have no effect on alcohol use.*

Treno, A. J., Gruenewald, P. J., Lee, J. P., & Remer, L. G. (2007). The Sacramento Neighborhood Alcohol Prevention Project: Outcomes from a community prevention trial. *Journal of Studies on Alcohol and Drugs*, 68, 197-207.

*The Sacramento Neighborhood Alcohol Prevention Project was designed to reduce alcohol access, alcohol use and alcohol-related problems in two low-income neighborhoods with a large group of 15 to 29 year olds. The project included five intervention components: mobilization for project support, community awareness, responsible alcohol service, underage law enforcement and intoxicated patron law enforcement. One of the sites demonstrated decreases in sales to minors, but the other site actually increases sales to minors. However, alcohol-related problems did decrease in both sites.*

Valente, T. W., Ritt-Olson, A., Stacy, A., Unger, J. B., Okamoto, J., & Sussman, S. (2007). Peer acceleration: Effects of a social network tailored substance abuse prevention program among high-risk adolescents. *Addiction*, 102, 1804-1815.

*Researchers tested a high school classroom-based model for substance abuse prevention titled Towards No Drug Abuse with 541 students in 14 high schools. The curriculum, both teacher-led and peer-led, focuses on motivations, skills and decision-making in order to change 1-year self-reported substance use in high-risk youth. Using control and experimental classrooms, the program's effectiveness was evaluated through pre and post measures of past month substance use, social network size, choice of students for group projects and class leader nominations. Both positive and negative effects were found, such that students in non-substance using peer groups were positively affected by the program, while students in substance using peer groups increased their substance use after the program. The authors note that the peer-led environment may have fostered environmental support of substance use, thereby increasing use.*

Wagner, E.F., Tubman, J.G., & Gil, A.G. (2004). Implementing school-based substance abuse interventions: Methodological dilemmas and recommended solutions. *Addiction*, 99(s2), 106-119.

*This study reviewed current knowledge about the most effective school-based interventions for child and adolescent problems and revealed ten core features related to their success. A literature review was conducted. The study found that the most effective school based interventions had these components: a strong theoretical foundation and a clear conceptual basis for describing, predicting, and interpreting normative and non-normative patterns of development; rigorous evaluation; psychoeducational and skills building components; careful attention to optimal timing, duration, frequency, and intensity of exposure to intervention; fidelity of the implementation of core program components; adequate training opportunities for teachers and professional staff; programs designed to engage the key consumers (children and adolescents); maximum buy-in from key stakeholders; school wide policies enforcing the management of the targeted behavior; and linkages with complementary intervention programs across a range of implementation settings.*

Wallace Jr., J.M., & Muroff, J.R. (2002). Preventing substance abuse among African American children and youth: Race differences in risk factor exposure and vulnerability. *The Journal of Primary Prevention*, 22, 235-261.

*This study tested the assumptions that African American and white adolescents are exposed to the same risk factors for substance abuse and are equally vulnerable to those risk factors. The methods used included a review of literature and data from the Monitoring the Future project. The authors concluded that the simple assumption that African American and white youth are equally exposed and vulnerable to the same risk factors is not correct. They found that African American seniors were more exposed to important contextual risk factors (e.g., economic deprivation) and measures of academic failure (e.g., poor grades) while white seniors were more exposed to individual (e.g., sensation seeking) and interpersonal risk factors (e.g., peer use). In total, the authors found that African American and white seniors differed significantly in their exposure to more than half of the 55 risk factors examined. This research brings up the need for well designed, and perhaps culturally tailored prevention interventions.*

Werch, C., Moore, M., DiClemente, C.C., Owen, D.M., Jobli, E., & Bledsoe, R. (2003a). A sport-based intervention for preventing alcohol use and promoting physical activity among adolescents. *Journal of School Health*, 73, 380-388.

*The sample in this study was 465 8<sup>th</sup> graders from 3 schools in northeast Florida. The sample was divided in to 3 groups: those who received a sports consultation, those who received a sport consultation plus an alcohol consultation, and those who received a sport consultation, alcohol consultation, and mailed parent materials. The sample was given a baseline and 3 month follow up health survey. The study aimed to find out if a brief, sport-based consultation alone and in combination with an alcohol preventive consultation and parent print materials influences alcohol consumption, alcohol use risk and protective factors, and exercise habits. The results showed decreases across all of the intervention groups on alcohol use initiation and alcohol problems and increases in the frequency of vigorous and moderate physical activity.*

Werch, C.E., Owen, D.M., Carlson, J.M., DiClemente, C.C., Edgemon, P., & Moore, M. (2003b). One-year follow-up results of the STARS for families alcohol prevention program. *Health Education Research*, 18, 74-87.

*A 1-year follow-up of the effect of the STARS (Start Taking Alcohol Risks Seriously) for Families Program was the purpose of this study. STARS for Families is a 2-year preventive intervention based on a stage of acquisition model, consisting of nurse consultations and parent materials. A sample of 650 middle school students from two urban schools (one magnet (bused) and one neighborhood) participated. Results showed that for the magnet school sample, students receiving the intervention showed over one-third less risk for planning to drink than control students and significantly less intentions to drink in the future, greater motivation to avoid alcohol use and less total alcohol risk factors than control students. For the neighborhood school sample, intervention students showed significantly less total risk factors for alcohol use*

*than control students. While all alcohol use measures reported at 1-year follow-up were lower for intervention students, most were not significantly different.*



## Conclusion

The main focus of this literature review is to explore research on the cultures of teen drinking in America. This topic is complex and has not been comprehensively examined in the literature. Summarizing each section of the literature review helps document what has been researched, and thereby illustrates topical conclusions and gaps in the literature (areas where additional information is needed).

Based on this review of the literature on teen drinking, the three most important influences identified are parents, peers, and the media. Parents appear to be the most important influence on decision-making in an adolescent's earlier years. In the literature, they represent the most influential determinant for the age of onset of drinking behavior. However, as the adolescent ages, other environmental factors outside the family become more influential on decision-making and preferences. Throughout the literature, many studies have found that increasing age is the greatest predictor of alcohol use and intention to use.

Recent advances in technology and media appear to have been added as the third major component to teen decision-making. Media is an important factor because it saturates the lives of adolescents in American culture. According to the literature, it is not fully known how and what kind of media has the most effect on whom but it cannot be argued that the media has no effect on an individual. Additional articles that would be beneficial to this literature review would address the nature of entertainment in teen culture. However, more research should be done examining the role of alcohol and alcohol promotional items as commodities in American culture.

As the majority of the research literature addresses parents, peers, and the media as important factors in addressing underage drinking, it appears that schools have not been identified as having an impact on teen drinking levels. However, since teens spend one-third of their time in the classroom, this is likely an overlooked influential force in teen culture.

It has been difficult to categorize some of the articles into one of the identified sections. Some of the studies cover more than one area and cannot be easily defined. In order to encompass the articles that did not fit neatly into a single factor, the General Culture section was created. In many ways, the articles identified within this section represent the ideal studies because they encompass a more global, cultural view of the problem of teen drinking rather than specifically focusing on a single root cause or issue.

Gaps in the literature in the cultures of teen drinking include missing or underdeveloped topics or populations of concern, methodological issues, and prevention, intervention, law, policy and enforcement efforts needing further expansion.

In terms of topical gaps, the influence of puberty, protective factors, non-drinking behaviors, ethnicity and the role of schools all need more study. Although the literature mentions increases in both girls' alcohol use rates and early on-set of drinking initiation, no studies

identified examined early onset alcohol use due to puberty changes or social and emotional development. Also, the focus of the majority of the studies is most often placed on the drinker instead of the non-drinker. This places the research focus on a “problem”, addressing binge drinkers and alcohol abusers, not the culture of substance use as a whole; the riskiest behaviors are often studied instead of asking why the non-drinker does not drink. Similarly, most of the research cited here focuses more on risk factors rather than on protective factors. Only recently have studies begun to address the protective or resilient role of factors such as friends, family, school, community and other positive resources in curbing adolescent alcohol consumption. Another topical gap in the teen drinking literature is the full identification of different ethnicities in American culture. A majority of the studies that look at ethnicity and race only do comparisons of “black” and “white” samples, with Hispanic samples gaining some ground. In reality, these are not clear-cut groups, and the division into these simple categories does not reflect the diversity of American culture; no studies included Asian American or Middle Eastern cultures in their analysis on teen drinking. As noted earlier, few articles were found on the influence of schools in the cultures of teen drinking. Determinations of how schools can provide consistent messages to students, teachers and parents regarding alcohol policies are necessary, as are examinations of the relationship between school environment and underage alcohol use by adolescents.

Methodological concerns include the lack of comparison and control groups, overemphasis of quantitative methodology, the narrow definition of research questions, the overuse of existing and dated data sources and the logistics of conducting and publishing research on teens. Especially in terms of media influence, the absence of a control or comparison group that has not had exposure to the influence makes it difficult to determine the full effect of any of the identified factors on adolescent decision-making. The majority of studies reviewed contained quantitative analysis; less than ten percent used qualitative methods. More qualitative methods need to be used to find out why teens drink because most of the current literature only seeks to find out which group of teens drink more than other groups. A more mixed-method approach would be beneficial to fully understand the cultures of teen drinking in America. For example, studies specifically addressing females using qualitative methodology may answer some of the questions surrounding the recent increase in female alcohol use.

The research questions used in American research tend to be extremely focused and less descriptive; American studies look more at the minutiae of the who, what, when and where of teen drinking. The international literature seems to better address the question of *why* teens drink. While the American literature is comprehensive in defining the problem, they often use pre-existing data from national studies which does not allow investigations of the current and ever-changing culture of American teens.

In studying teens under 18, there is also the problem of gaining parent or guardian consent. Since the topic of study is a sensitive issue and may unearth illegal behavior, there is added difficulty. Furthermore, there is also the question of whether youth are being honest on the commonly used self-report surveys. It is difficult to capture current teen drinking behaviors when self-report surveys reflect on previous behaviors that may not be fully accurate. The

methodology utilized in a majority of the studies in the reviewed literature on teen drinking is not youth-friendly, which makes getting accurate information difficult. Getting access to and honest answers from teens in a research environment is challenging and requires methodological and logistical creativity.

An additional challenge with studying current teen culture is the time lag involved in the traditional publication of articles: by the time articles are published in peer-reviewed journals their results are already talking about dated results and do not reflect the current teen culture. Since culture changes at a rapid pace and in different ways, it is difficult to publish on current trends and also difficult to define the culture itself at any single moment in time. Thus, peer-reviewed journal articles on current teen American culture do not exist. For example, social networking websites are a definitive component of current teen lifestyles but the role of these in the culture of substance use is not reflected in current peer-reviewed literature on teens.

The literature review also uncovered prevention, intervention, law, policy and enforcement efforts that need further expansion. Studies pertaining to prevention and intervention strategies show how difficult it is to summarize or make general conclusions because of the wide variety of programs available to adolescents. The strategies are not uniform and most of the interventions appear to be provided through the schools. However, many interventions in non-school settings are shown to be effective; thus, greater buy-in from the community for non-school programs would most likely benefit American teens. Although the establishment of evidence-based practices for interventions is necessary to document effective and successful ways to reach youth, available research often focuses on what works and does not report programs that were less than effective. Knowing details about unsuccessful efforts would provide learning opportunities for those working on prevention and intervention programming and would help the field advance. The literature on law, enforcement, and policy shows that there is no uniform policy or enforcement across region, state, or even community. Some authors provide recommendations regarding changes that may work; however, there is little about the feasibility of these recommendations within the current political climate.

In conclusion, the analysis of the literature reflects the absence of discussion about culture as it is related to teen drinking. There is an understanding that drinking is a social phenomenon but how infiltrated it is in American youth society is not well portrayed. This review has reflected how researchers have approached teen drinking. However, current literature is lacking in an understanding of teens' cultures and in information about how to approach the cultures of teen drinking. There are many studies pertaining to the root causes of teen alcohol use but most of the studies do not provide new, innovative information to the field. The original question of identifying the cultures of teen drinking is not sufficiently addressed in the literature.

## New Article Additions to Literature Review Sections

### Individual

Bloomfield, K., Gmel, G., Neve, R. & Mustonen, H. (2001). Investigating gender convergence in alcohol consumption in Finland, Germany, The Netherlands, and Switzerland: A repeated survey analysis. *Substance Abuse*, 22(1), 39-53.

*The purpose of this study was to investigate the closing of the gender gap in four countries. National data from at least two time points was available for Finland (in 1984 and 1992), Germany (in 1984 and 1990), the Netherlands (in 1981 and 1989), and Switzerland (in 1987 and 1992). Findings showed significant convergence in Finland only. In Finland, the results showed a greater increase of Finnish women becoming current drinkers and a greater relative increase in women's mean consumption. The authors conclude that the reason why gender convergence was only found for Finland could be because of the longer observation period or because of the egalitarian position of women and the changing drinking culture of the country.*

Coleman, L. & Cater, S., (2005), Underage 'binge' drinking: A qualitative study into motivations and outcomes. *Drugs: Education, Prevention and Policy*, 12(2), 125-136.

*This study examined motivations to 'binge' drink and associated harmful outcomes with 14-17 year olds (n=64) in southern England using one-on-one interviews. Results showed that younger teens (age 14-15) were prone to harmful outcomes due to the prevalence of drinking in unsupervised outdoor locations and drinking in pubs/bars offered a protective factor for a many risky outcomes. Recommendations include mandatory alcohol education in schools and reforms to change the binge-drinking culture.*

Cooper, M.L., Krull, J.L., Flanagan, M.E., Grabe, S., Agocha, V.B., Orcutt, H.K. & Dermen, K.H. (2008). Motivational pathways to alcohol use and abuse among black and white adolescents. *Journal of Abnormal Psychology*, 117(4), 485-501.

*The trajectories of alcohol use and abuse over a 15 year period, from adolescence to young adulthood, as well as the extent to which these trajectories were differentially predicted by coping and enhancement motives for alcohol use among a biracial community sample of adolescents was assessed in this study. Findings showed that Black and White youth follow distinct alcohol trajectories from adolescence into young adulthood and that these trajectories are differentially rooted in the regulation of positive and negative emotions. Among Black drinkers, coping motives assessed in adolescence more strongly forecasted differences in alcohol involvement into their early 30s, whereas enhancement motives more strongly forecasted differences among white drinkers. White drinkers reported stronger coping motives than their Black counterparts did at 14 and Black drinkers showed steeper increases in drinking to cope throughout adolescence and into their early 20s, eventually catching up to and surpassing their White counterparts by their mid-20s.*

*Black adolescents started at lower levels of use, grew at a slower rate, and reached peak levels of involvement later than the white drinkers did. Once they reached their peak, Black drinkers decreased their alcohol involvement more gradually than White drinkers.*

Corte, C. & Zucker, R.A. (2008). Self-concept disturbances: Cognitive vulnerability for early drinking and early drunkenness in adolescents at high risk for alcohol problems. *Addictive Behaviors, 33*, 1282-1290.

*The purpose of this study was to find out if adolescents with few positive and many negative self-schemas would drink and get drunk earlier than adolescents with many positive and few negative self-schemas. The sample included 264 adolescents who were assessed at ages 12 to 14 and again at ages 15 to 17. Findings showed that when considering the combined effects of the number of positive and negative self-schemas, antisociality, and parental alcoholism on drinking outcomes, the number of negative self-schemas directly predicted early drinking onset whereas the number of positive self-schemas moderated the effects of antisociality on early drunkenness. Although self-concept properties at baseline did not differentiate level of alcohol involvement at follow-up in mid-adolescence, they did distinguish earlier from later age of onset among those who initiated, with effects tending to be somewhat stronger for boys than girls. The authors conclude that self-schemas appear to be an additional risk factor in the pathway to problem alcohol involvement in adolescence, above and beyond the contribution of the known risk factors antisocial behavior and parental alcoholism.*

Glassman, T., Werch, C. & Jobi, E., (2007). Alcohol self-control behaviors of adolescents. *Addictive Behaviors, 32*, 590-597.

*This study examined which adolescent alcohol self-control behaviors predict alcohol use and consequences. The Youth Alcohol and Health Survey was completed by high- school students (n=1284) in the fall of 2002 and 2003. Results showed that self-regulation strategies were the most consistent predictor of alcohol use patterns among adolescents followed by Healthy Alternatives strategies, and should be incorporated into prevention and interventions for adolescents.*

Gunnarsson, M., Gustavsson, J.P., Tengstrom, A., Franck, J. & Fahlke, C. (2008). Personality traits and their associations with substance use among adolescents. *Personality and Individual Differences, 45*, 356-360.

*This study investigated whether there is an association between personality traits and self-reported risk consumption of substances among adolescents. The sample included 3,419 male and female adolescents with a median age of 18. Findings showed that respondents with risk consumption of substances had significantly higher levels of antagonism and impulsivity and lower levels of hedonic capacity, alexithymia (difficulty in experiencing, expressing, and describing emotional*

responses), and negative affectivity compared to those with no risk consumption of these substances.

Mason, W.A., Hitchings, J.E. & Spoth, R.L. (2008). The interaction of conduct problems and depressed mood in relation to adolescent substance involvement and peer substance use. *Drug and Alcohol Dependence*, 96, 233-248.

*The interaction of conduct problems and depressed mood at age 11 was examined in relationship to substance use and problem use at age 18, and possible mediation through peer substance use at age 16. The sample included 429 rural youth and their families. Findings showed that high levels of both conduct problems and depressed mood interacted to reduce risk for later substance use among youth. A positive association between conduct problems and substance use was present only when depressed mood was low. Also, the estimated indirect effect of the interaction on adolescent use through peer use as a mediator was statistically significant.*

Roberti, J. W. (2004). A review of behavioral and biological correlates of sensation seeking. *Journal of Research in Personality*, 38, 256-279.

*This article is a review of studies related to sensation seeking including personality factors, behavioral expressions and biological characteristics. Results showed that peer-socialization on promoting non-risky forms of sensation seeking are necessary as sensation seekers enjoy the company of others with similar stimulation preferences. Biological correlates included neurotransmitters, enzymes and hormones.*

Urban, Robert, Kokonyei, G. & Demetrovics, Z. (2008). Alcohol outcome expectancies and drinking motives mediate the association between sensation seeking and alcohol use among adolescents. *Addictive Behaviors*, 33, 1344-1352.

*The goal of this study was to provide evidence on the mediating role of outcome expectancies and drinking motives in the association between sensation seeking and alcohol use. Self-reported data from a sample of 707 Hungarian high school students was used. The study showed that positive expectancy had a stronger association with alcohol use than negative expectancy. Positive expectancy was shown to be an important mediating factor between sensation seeking and alcohol use.*

Wilens, T.E., Adamson, J., Monuteaux, M.C., Faraone, S.V., Schinlinger, M., Westerberg, D. & Biederman, J. (2008). Effect of prior stimulant treatment for attention-deficit/hyperactivity disorder on subsequent risk for cigarette smoking and alcohol and drug use disorders in adolescents. *Archives of Pediatric and Adolescent Medicine*, 162(10), 916-921.

*The effects of early stimulant treatment on subsequent risk for cigarette smoking and substance use disorders (SUDS) in adolescents with attention-deficit/hyperactivity disorder (ADHD) were*

assessed. A five year follow up study was done with a sample of adolescents with and without ADHD. Findings showed no differences in SUD risk factors between naturally treated and untreated groups other than family history of ADHD. They found no increased risk for cigarette smoking or SUDs associated with stimulant therapy. Significant protective effects were found for stimulant treatment on the development of any SUD and cigarette smoking. The authors concluded that stimulant therapy does not increase, but reduces the risk for cigarette smoking and SUDs in adolescents with ADHD.

Yen, C.F., Yang, M.S., Chen, C.C., Yang, M.J., Su, Y.C., Wang, M.H. & Lan, C.M. (2008). Effects of childhood physical abuse on depression, problem drinking and perceived poor health status in adolescents living in rural Taiwan. *Psychiatry and Clinical Neurosciences*, 62, 575-583.

*The effects of childhood physical abuse on adolescent depression, problem drinking, and perceived poor mental health in Taiwanese indigenous and non-indigenous adolescents living in rural areas was assessed. A sample of 1,684 adolescents from junior high schools in rural areas in Southern Taiwan were used. About 22 percent of the adolescents reported that they had experienced physical abuse in childhood. Childhood physical abuse significantly increased the risk of depression, problem drinking, and perceived poor health status. The authors concluded that the history of childhood physical abuse should be elicited from adolescents in treatment for depression, alcohol abuse or physical discomfort with unknown causes.*

## **Media**

### **Advertising**

Carroll, T.E. & Donovan, R.J. (2002). Alcohol marketing on the internet: new challenges for harm reduction. *Harm Reduction Digest*, 21, 83-91.

*The purpose of this study was to examine the marketing of alcoholic beverages on the internet because, according to the authors, there has been a lot of attention put into the regulation of alcohol and other drug promotion in the traditional media but not on the 'new media', particularly the world wide web. The authors applied the voluntary standards of the Alcohol Beverages Advertising Code to six websites for alcohol products available in Australia. Based on what they found, the authors concluded that the internet provides an opportunity for alcohol marketing targeted at underage consumers, that some alcohol-related web pages would be in breach of the Code if it applied to the internet, and that the web marketing practices of alcohol beverage companies should be monitored and a code of practice developed to regulate alcohol promotion on the web.*

Jones, S.C. & Donovan, R.J. (2002). Self-regulation of alcohol advertising: Is it working for Australia? *Journal of Public Affairs*, 2(3), 153-165.

*This study was conducted to determine the effectiveness of the alcohol beverage industry's self-regulation of advertising in Australia. Eight marketing academics ("expert judges") and 35 second year advertising students from an Australian University ("student judges") judged whether 11 alcohol advertising complaints that were lodged with the Advertising Standards Board (ASB) by the general public breached any of the clauses of the Australian Association of National Advertisers' Code of Ethics or Alcoholic Beverages Advertising Code. A majority of the expert judges perceived breaches of the Codes for seven of the nine advertisements reviewed. The majority of the university students thought that all nine of the advertisements were in breach of one or more of the Codes of Practice. The ASB had previously ruled that none of the ads breached any Codes. The authors conclude that there is a clear discrepancy between the judges and the members of the ASB. They state it appears the ASB members may lack objectivity (or expertise) in their assessment of complaints. In addition, prior to submitting a written complaint, consumers are provided with copies of recent decision records which may discourage many complainants from proceeding.*

Jones, S.C. & Donovan, R.J. (2001). Messages in alcohol advertising targeted to youth. *Australian and New Zealand Journal of Public Health*, 25(2), 126-131.

*Young people's perceived messages in three ads for a vodka-based, pre-mixed alcohol beverage and the extent to which the ads appeared to be consistent with the industry's voluntary code were examined in this study. The sample included two groups of young people ages 15-16 and 19-21. The data suggested that the targeting of these ads may be outside the industry guidelines in that they suggest that consumption of alcohol can lead to a significant change of mood, can contribute to sexual success, and has a therapeutic benefit in aiding relaxation, and are perceived by a substantial proportion of the sample as targeting youth under 18 years old.*

### **Entertainment**

Villani, S. (2001). Impact of media on children and adolescents: A 10-year review of the research. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40(4), 392-401.

*This study reviewed the research literature that was published within the past 10 years regarding the impact of media on children and adolescents. The types of media studies included television and movies, rock music and music videos, advertising, video games, and computers and the internet. Based on the literature, the author concluded that the primary effects of media exposure were increased violent and aggressive behavior, increased high-risk behaviors, including alcohol and tobacco use, and accelerated onset of sexual activity. The newer forms of media (computers and the internet) have not been adequately studied, however the author cites concern based on the logical extension of other media research and the amount of time the average adolescent spends with increasingly sophisticated media.*



## Parents

Kypri, K., Dean, J., & Stojanovski, E., (2007). Parent attitudes on the supply of alcohol to minors. *Drug and Alcohol Review*, 26 41-47.

*This article highlights a New Zealand study examining parent attitudes regarding supply of alcohol to minors. A sample of 748 parents of 13-17 year olds were surveyed. Although most of the parents disagreed with lowering the purchase age to 18, the majority believed the appropriate age to start drinking was 18 or younger. The overall results showed that parent attitudes condoned minors being given small quantities of alcohol under parental supervision to model moderate drinking.*

Stritzke, W., & Butt, J. (2001). Motive for not drinking alcohol among Australian adolescents: Development and initial validation of a five-factor scale. *Addictive Behaviors*, 26, 633-649.

*A study in Australia examined why people do not drink and developed the Motives for Abstaining from Alcohol Questionnaire (MAAQ). When administered to adolescents (n=187) ages 10-12, results showed that frequency of alcohol consumption was significantly predicted by family constraints, and fear of negative consequences did not predict frequency of alcohol consumption.*

## Peers

Flanagan, C.A., Elek-Fisk, E., & Gallay, L.S. (2004). Friends don't let friends...or do they? Developmental and gender differences in intervening in friends' ATOD use. *Journal of Drug Education*, 34(4), 351-371.

*The strategies that adolescents used for situations in which friends were experimenting with alcohol, tobacco, and other drugs were the focus of this study. The four situations used concerned a friend smoking, using drugs, getting drunk at a party, or deciding whether to attend a party with alcohol and drugs. A total of 2,697 5<sup>th</sup> through 12<sup>th</sup> graders responded to the survey. Younger students were more likely to choose proactive strategies (talking to the friend or an adult or ending the friendship) and older students were more likely to say they would ignore a friend's smoking and drug use although they would take the car keys away from a friend drinking alcohol. For those 13 years old and older, the more dangerous the substance, the more inclined the youth was to intervene. Females were more inclined than males to talk to friends about smoking, drinking, and drugs and less inclined to ignore the behaviors or stop being a friend. Older adolescents were also less likely to say they would discuss any of the issues with an adult which is consistent with normative developmental shifts in authority and decision-making away from heteronomy toward greater autonomy.*

Harden, K.P., Hill, J.E., Turkheimer, E. & Emery, R.E. (2008). Gene-environment correlation and interaction in peer effects on adolescent alcohol and tobacco use. *Behavior Genetics*, 38, 339-347.

*The interplay between genetic liability and peer influences on the development of adolescent alcohol and tobacco use was examined in this study. The sample included adolescent sibling pairs and their best friends. Findings showed that genetic factors, some of them related to an adolescent's own substance use and some of them independent of use, were associated with increased exposure to best friends with heavy substance use (a gene-environment correlation). Adolescents who were genetically liable to substance use were more vulnerable to the adverse influences of their best friends (a gene-environment interaction). The authors conclude that genetic risks for adolescent substance use are, at least in part, made manifest via increased exposure to and vulnerability to negative influential environments, namely substance-using best friends.*

Jones, D.J., Hussong, A.M., Manning, J. & Sterrett, E. (2008). Adolescent alcohol use in context: The role of parents and peers among African American and European American Youth. *Cultural Diversity and Ethnic Minority Psychology*, 14(3), 266-273.

*The main and interactive effects of parents and peers as well as the moderating role of race on alcohol use were analyzed in this study. The sample included 71 African American and European American rural youth who were identified as at high-risk for alcohol use. Parents were not found to be a more robust moderator for African American than European American youth. Adolescents who reported that their peers engaged in higher levels of substance use were least likely to drink if their parents reported fewer problems with use and most likely to drink if their parents reported greater problems with use. Adolescent alcohol use did not vary by race, and race did not further qualify the interactive roles of parental and peer use. Peer substance use was a significant correlate of adolescent alcohol use in this study. Adolescents who reported that their peers engaged in greater substance use reported greater alcohol use themselves. Parental problems with alcohol use were not directly associated with adolescent alcohol use.*

Power, T., Stewart, C., Hughes, S., & Arbona, C. (2005). Predicting patterns of adolescent alcohol use: A longitudinal study. *Journal of Studies on Alcohol*, 66(1), 74-81.

*This study examined how adolescent drinking patterns change during the high school years. The sample included 1,253 students from six high schools in a large metropolitan school district. Peer involvement in antisocial activity and parental attitudes toward adolescent drinking predicted movement to normative drinking. Social activity with peers predicted movement into high-risk drinking and emotional distress predicted problem drinking.*

Wiesner, M., Silbereisen, R.K. & Weichold, K. (2008). Effects of deviant peer association on adolescent alcohol consumption: A growth mixture modeling analysis. *Journal of Youth and Adolescents*, 37, 537-551.

*The purpose of this study was to examine concurrent and lagged effects of deviant peer association on levels of alcohol use for distinctive trajectories of drinking from ages 14-18. Longitudinal, secondary data for male and female German adolescents was used. Findings showed consistent concurrent effects of deviant peer association on alcohol use for the regular users group, but not any of the other drinking trajectory groups. Very few lagged effects of deviant peers association on alcohol use were found.*

### **Sports and Leisure**

Nelson, M.C. & Gordon-Larsen, P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics*, 117(4), 1281-1290.

*The relationship between physical activity and sedentary behavior patterns and an array of risk behaviors were examined in this study. Data from the National Longitudinal Study of Adolescent Health was used. Findings showed that participation in a range of physical activity related behaviors, particularly those characterized by high parental sports/exercise involvement, was associated with favorable adolescent risk profiles. Adolescents with high TV/video viewership were less likely to have positive risk behavior outcomes. The authors conclude that enhancing opportunities for physical activity and sports may have a beneficial effect on the leading adolescent risk behaviors.*

### **Culture**

Arbeau, K.J., Galambos, N.L. & Jansson, S.M. (2007). Dating, sex, and substance use as correlates of adolescents' subjective experience of age. *Journal of Adolescence*, 30, 435-447.

*The relationship between subjective experience of age (SEA) with chronological age, dating experience, sexual activity, and substance use was examined in this study. The sample included 664 12-19 year olds from a random community-based sample in a medium sized Canadian city. Findings showed that individuals who were chronologically older felt subjectively older than their actual age. Adolescents who were dating an older partner felt older compared to other dating adolescents. Sexually experienced adolescents felt older than their non-experienced counterparts. Smoking (for boys), higher alcohol use, and higher drug use were also related to an older SEA. The results suggest an increasing discrepancy between SEA and chronological age across the teen years as young people experience the normative changes associated with adolescence.*

Borsari B., Boyle, K, Hustad, J., Barnett, N, Tevyaw, T., & Kahler, C., (2007). Drinking before drinking: Pregaming and drinking games in mandated students. *Addictive Behaviors*, 32, 2694-2705.

*This study involved participants enrolled in a mandatory alcohol intervention following an alcohol policy violation. The sample included 334 college freshmen in 2005-2006 and the purpose was to examine "pre-gaming" and drinking games. Results showed that two-thirds of the students engaged in one or the other in the past 2 weeks. Pre-gaming was associated with higher BAC's. Also, pre-gaming may appeal to students who want to get intoxicated, while drinking games did not pre-occur with pre-gaming.*

Harrison, P., Fulkerson, J., & Park, E. (2000). The relative importance of social versus commercial sources in youth access to tobacco, alcohol and other drugs. *Prevention Medicine*, 31, 39-48.

*This study examined social versus commercial sources of alcohol for youth. The sample included 13,794 students in grades 6, 9, and 12. Findings showed that girls were twice as likely as boys to use social sources exclusively to obtain alcohol and other drugs. Social sources were preferred overall with family members being most prevalent for younger students. As adolescents get older access for alcohol is through networks of friends and parties.*

Hingson, R.W., Heeren, T. & Winter, M.R. (2006). Age at drinking onset and alcohol dependence. *Archives of Pediatric and Adolescent Medicine*, 160, 739-746.

*The purpose of this study was to examine whether starting to drink at an early age is associated with developing alcohol dependence at a younger age and chronic relapsing dependence. A sample of 43,093 adults were surveyed. Findings showed that relative to respondents who began drinking at 21 years or older, those who began drinking before age 14 were more likely to experience alcohol dependence ever and within 10 years of first drinking. They also more often experienced past-year dependence and multiple dependence episodes. The authors conclude that there is a need to screen and counsel adolescents about alcohol use and to implement policies and programs that delay alcohol consumption.*

Jarvinen, M., & Gybedkacg, P. (2007). Teenage drinking, symbolic capital and distinction. *Journal of Youth Studies*, 10 (1), 55-71.

*This study examined alcohol related lifestyles of Danish teens (ages 15-16) using surveys (n =2000) and 28 focus groups with eighth and ninth graders. Results showed three categories of teens: cautious drinkers, mainstream drinkers and experienced drinkers. Two-thirds of the sample belonged to the mainstream drinkers category. Cautious drinkers risk social isolation and condemnation from their peers. Heavy alcohol use was associated with sociability and a culturally legitimated behavior in a largely normative population.*

Kokkevi, A., Richardson, C., Florescu, S., Kuzman, M. & Stergar, E. (2007). Psychosocial correlates of substance use in adolescence: A cross-national study in six European countries. *Drug and Alcohol Dependence*, 86(1), 67-74.

*The psychosocial correlates of substance use among adolescents in six European countries were examined in this study. The countries included Bulgaria, Croatia, Greece, Romania, Slovenia, and the UK. A sample of 16,445 high school students who were 16 during the year of data collection was used. Findings showed that the self-esteem scale score was not correlated with substance use. Anomie and antisocial behavior were more strongly associated than depression with substance use. In the case of depression, anomie, and most other items examined, associations were stronger for girls than for boys. Family factors such as living with both parents, parental interest in the child's going out and perceived quality of relationships with parents seemed to play an important role in substance use. Other environmental factors strongly associated with substance use included other siblings 'friends' use of legal and illegal substances. Peer modeling and peer group bonding seemed to be associated with problem behavior. Family environment and support and school attendance were strongly negatively correlated with substance use. The authors concluded that the study identified correlates of legal and illegal substance use that extended outside specific countries, which provides grounds to believe they can be generalized.*

Kutsche, E., & Kuendig, H., (2005). Do school surroundings matter? Alcohol outlet density, perception of adolescent drinking in public, and adolescent alcohol use. *Addictive Behaviors*, 30, 151-158.

*This study examined ninth graders (n=1,194) and their schoolmasters (n=61) in Switzerland. The relationship between alcohol outlet density and adolescent drinking and drunkenness was investigated. Results showed that in regions with high outlet density, schoolmasters are sensitive to the problem and counter it by promoting prevention campaigns, thus adolescent alcohol use was found to be lower.*

Larson, R.W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55(1), 170-183.

*The purpose of this article was to analyze the development of initiative as an exemplar of one of many learning experiences that should be studied as a part of positive youth development. The context best suited to the development of initiative appears to be that of structured voluntary activities, such as sports, arts, and participation in organizations, in which youths experience the combination of intrinsic motivation in combination with deep attention. Research suggests that such activities are associated with positive development, but the development processes involved are only beginning to be understood.*

Leadbeater, B.J., Foran, K. & Grove-White, A. (2008). How much can you drink before driving? The influence of riding with impaired adults and peers on the driving behaviors of urban and rural youth. *Addiction*, 103, 629-637.

*The purpose of this study was to assess the effects of youth attitudes about substance use and their experiences of riding in cars with adults and peers who drove after drinking alcohol or smoking cannabis on the youth's own driving after drinking or using cannabis. A sample of 2,594 students in grades 10 and 12 from public high schools in urban and rural communities in British Columbia were used. Findings showed that youth driving risk behaviors were associated independently with their own high-risk attitudes and experiences riding with peers who drink alcohol or use cannabis and drive. Risks were highest for the youth who also report more frequent experiences of riding with adults who drink alcohol or use cannabis and drive. The authors conclude that prevention efforts should be expanded to include the adult and peers who are role models for new drivers and to increase youth's awareness of their own responsibilities for their personal safety as passengers.*

McGue, M., Elkins, I. & Iacono, W.G. (2000). Genetic and environmental influences on adolescent substance use and abuse. *American Journal of Medical Genetics*, 96, 671-677.

*The purpose of this study was to examine the inheritance of substance use and abuse among adolescents. A sample of 626 male and female 17-year-old twin pairs were used. Findings showed that the heritability of use and abuse of illicit substances was modest (25 percent or less), but the heritability of tobacco use and nicotine dependence was substantial (40 percent to 60 percent). No differences in gender were shown. Shared environmental influences were substantial for all substance use measures. The authors conclude that there is greater genetic influence on the use and abuse of licit substances than with illicit substances and that environmental influences are significant for use of all substances.*

Okulicz-Kozaryn, K. & Borucka, A. (2008). Warsaw adolescent alcohol use in a period of social change in Poland: Cluster analyses of five consecutive surveys, 1988-2004. *Addictive Behaviors*, 33(3), 439-450.

*Changes in patterns of alcohol use from 1988 to 2004 amongst Polish (Warsaw) 15-year-olds were assessed in this study. The data was collected every four years and the approximate sample size each year was about 1,460 adolescents. The results showed that between 1988 and 1992 the percentage of teenage infrequent drinkers decreased and the rate of heavy drinkers increased. A group of students drinking only beer appeared and wine drinkers disappeared. A group of students who drank alcohol to get drunk appeared in 1996. Between 2000 and 2004, the drinking of various kinds of alcoholic beverages became more frequent, as did vodka abuse. The results also showed an increase in alcohol consumption among girls.*

Plant, M. & Miller, P. (2001). Young people and alcohol: An international insight. *Alcohol and Alcoholism*, 36(6), 513-515.

*This article is a summary of findings from the European School Survey Project on Alcohol and Other Drugs (ESPAD) which surveyed more than 90,000 teenagers from a total of 30 countries.*

*Teenagers in a group of northern countries reported the highest rates of heavy drinking and intoxication (drunkenness) while teenagers in southern Europe reported much lower levels of such behaviors and experiences. In most of the participating countries, teenage alcohol consumption had remained fairly stable or had risen between 1995 and 1999. Teenagers in high intoxication countries reported some of the highest levels of adverse effects but also were more likely to report they believed that drinking would produce positive consequences. The authors conclude that countries in which teenagers drink less and with fewer problems are those in which parents typically teach their children to drink from an early age within the context of a controlled home environment.*

Rhee, S.H., Hewitt, J.K., Young, S.E., Corley, R.P., Crowley, T.J. & Stallings, M.C. (2003). Genetic and environmental influences on substance initiation, use, and problem use in adolescents. *Archives of General Psychiatry*, 60, 1256-1264.

*The relative contribution of genetic and environmental influences on substance initiation, use, and problem use for adolescent siblings and twins was assessed. The sample included 345 monozygotic twin pairs, 337 dizygotic twin pairs, 306 biological sibling pairs, and 74 adoptive sibling pairs. Findings showed moderate to substantial genetic influences with the exception of alcohol use and any drug use, and modest to moderate shared environmental influences on substance initiation, use, and problem use. Heritability was higher for alcohol and any drug for problem use and lower for initiation or use. Environmental influences shared only by twin pairs had a significant effect on tobacco initiation, alcohol use, and any drug use. There was no evidence for sex-specific genetic or shared environmental influences on any variable. The significance of environmental influences shared only by twin pairs on tobacco initiation, alcohol use, and any drug use suggests the influences of peers, accessibility of substances, and sibling interaction.*

Room, R. (2001). Intoxication and bad behavior: understanding cultural differences in the link. *Social Science and Medicine*, 53, 189-198.

*The author discusses cultural variations in drunken comportment. Four specific variations are presented. The first analysis is of the contrast between wet societies, where drinking is banalized everyday, and dry societies where alcohol is set apart as a special commodity. Second, he discusses the need to study variations in the definition of intoxication as a "time out" state. Third, Room asks why, if bad behavior is a foreseeable consequence of drinking, do some societies not hold the drinker responsible? In Anglo-American and similar societies, drunkenness has some excuse value, but it is not a very good excuse. Finally, the fourth variation talks about psuedointoxication and*

*how it is fairly widespread and seems to mark social situations where alcohol has enhanced excuse value.*

Rose, R.J., Dick, D.M., Viken, R.J. & Kaprio, J. (2001). Gene-environment interaction in patterns of adolescent drinking: Regional residency moderates longitudinal influences on alcohol use. *Alcoholism: Clinical and Experimental Research*, 25(5), 637-643.

*The purpose of this study was to assess changes in genetic and environmental influences on alcohol use across adolescence. The sample included Finnish twins born between 1975 and 1979. The study was longitudinal and the twins were surveyed at ages 16, 17, and 18.5 years. A total of 1786 same-sex twin pairs were used. Findings showed that genetic factors influencing drinking patterns increased in importance across the 30 month period and effects arising from common environmental influences declined. Distributions of drinking frequencies in twins residing in rural and urban environments were highly similar, but influences on drinking varied between the two environments. Genetic factors assumed a larger role among adolescents residing in urban areas, while common environmental influences were more important in rural settings. The results document the changing impact of genetic and environmental influences on alcohol use across adolescence. The results also reveal a significant gene-environment interaction in patterns of adolescent drinking.*

### **Enforcement, Law, and Policy**

Doran, C., Shakeshaft, A. Hall, W., & Petrie, D. (2009). Alcohol industry and government revenue derived from underage drinking by Australian adolescents 2005. *Addictive Behaviors*, 34, 75-81.

*This article examined estimated revenue gained from consumption of alcohol by adolescents by beverage type in 2005 in Australia. Results showed that a revenue of 212 million was derived by adolescents, the government retained 49 percent or 107 million in taxation receipts and the industry collects the remaining 111 million. Over 75 percent of the revenue for underage drinking came from spirits and pre-mixed spirits followed by beer. The average amount of taxation revenue by the government for underage drinkers equaled around \$212 a year.*

Fell, J.C., Fisher, D.A., Voas, R.B., Blackman, K. & Tippetts, A.S. (2008). The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States. *Accident Analysis and Prevention*, 40, 1430-1440.

*The purpose of this study was to evaluate and interrelate the existence and strength of two core laws and 14 expanded laws designed to control the sales of alcohol, prevent possession and consumption of alcohol, and prevent alcohol impaired driving by youth ages 20 and younger. The results of the study seemed to support stronger laws against the use of false ID and to confirm previous research and recommendations regarding the presence (but not strength) of the core*



*purchase and possession laws. Even without substantial enforcement, it may be important for states to adopt effective expanded MLDA 21 laws to have a good foundation in preventing, or at least reducing underage drinking.*

Grube, J.W. & Nygaard, P. (2001). Adolescent drinking and alcohol policy. *Contemporary Drug Problems*, 28(1), 87-131.

*This article provides an overview of policy approaches to the prevention of underage drinking and its associated problems. Based on the information presented, the most effective policies appeared to be taxation/price increases, increases in the minimum drinking age and graduated licensing or zero tolerance. Random breath testing and sobriety checkpoints are also promising but there is little evidence for their effectiveness with young people. Major changes in the condition of sale (ex-privatization) can affect the availability of alcohol to young people and underage drinking. Evidence for the effectiveness of more modest license restrictions, responsible beverage service, advertising restrictions, warning labels, keg registration, and school policies are less convincing. It is apparent from the research that no policy can be effective unless it is accompanied by enforcement and by the adolescent's awareness of both the policy and enforcement efforts.*

Harrison, P.A., Fulkerson, J.A., & Park, E. (2000). The relative importance of social versus commercial sources in youth access to tobacco, alcohol, and other drugs. *Preventive Medicine*, 31, 39-48.

*The relationship between grade, gender, race/ethnicity, use frequency, and access to substances through social and commercial sources was analyzed in this study. Data from the Minnesota Student Survey which included 133,794 sixth, ninth, and twelfth graders was used. The findings showed that social sources (especially friends) predominated across all age groups and substances. Students were much more likely to obtain tobacco than alcohol from commercial sources but few relied exclusively on commercial sources for either. Females and infrequent users were more likely to depend on social sources exclusively while male and frequent users were more likely to use commercial sources. The authors conclude that because substances are easily accessible through social sources, prevention policies directed at retail outlets may not have the desired effect on reducing teen smoking and drinking. More focus on access to substances from social sources is needed.*

Hoover, E. (2008). For MADD, the legal drinking age is not up for debate. *The Chronicle of Higher Education* 55, (11), 31-32.

*This is an article examining the lobbying and fundraising struggle by Mothers against Drunk Driving (MADD) to combat the "Choose Responsibly" proposal for a waiver to the underage drinking laws.*

Measham, F., & Brain, K. (2005). 'Binge' drinking, British alcohol policy and the new culture of intoxication. *Crime, Media, Culture*, 66(1) 262-283.

*This article examines the ambiguities of British alcohol policies and how significant changes are underway in respect to the United Kingdom's alcohol patterns. The authors describe cultural distinctions of contemporary British leisure and the evidence for a 'new' culture of intoxication. The authors conclude that the pursuit of altered states of intoxication are encouraged by economic deregulation and constrained by legislative change.*

Wagenaar, A.C. & Toomey, T.L. (2000). Alcohol policy: gaps between legislative action and current research. *Contemporary Drug Problems*, 27(4), 681-733.

*The purpose of this study was to compare alcohol policies under debate in the United States state legislatures with policies that have been the focus of research attention. Empirical studies of each policy and types of outcome variable analyzed were reviewed. The authors found that the two most evaluated alcohol control policies are the minimum legal drinking age and excise tax. Eight other policies had 20 or more studies evaluating them including exposure to alcohol advertising, warning labels on products, restricting types of alcohol outlets, privatization, and density of alcohol outlets. The remaining policies reviewed received little attention in the literature. The most frequent outcomes used in alcohol policy studies were alcohol consumption and traffic crashes. The majority of the studies evaluated policy changes at the state or national level, with few studies of local or institutional policies. The authors also found that many of the specific alcohol policies under debate in state legislatures had little research evidence to guide policy decision-making.*

### **Prevention/Intervention**

Bell, M.L., Padgett, A., Kelley-Baker, T. & Rider, R. (2007). Can first and second grade students benefit from an alcohol use prevention program? *Journal of Child & Adolescent Substance Abuse*, 16(3), 89-107.

*This article reports on an evaluation of the Protecting You/Protecting Me (PY/PM) program. The PY/PM program is a classroom-based, alcohol use prevention and vehicle safety program for elementary students from grades 1-5. It was developed by Mothers Against Drunk Driving (MADD). This is one of the first programs to target children as young as first graders. This evaluation focuses on the first and second graders only, who were surveyed over a three year period. Findings showed that the PY/PM students increased their knowledge of vehicle safety, media awareness, growth and development, and dangers of alcohol to young persons.*

Botvin, G.J. & Griffin, K.W. (2007). School-based programmes to prevent alcohol, tobacco, and other drug use. *International Review of Psychiatry*, 19(6), 607-615.

*This study is a review of school-based programs designed to prevent alcohol, tobacco, and other drug use. Most drug prevention or education programs take place in school settings. After an*

*analysis of the literature, the authors discovered 'lessons learned' about the quality and effectiveness of programs delivered in schools. Effective drug prevention programs are guided by a comprehensive theoretical framework that addresses multiple risk and protective factors, provide developmentally appropriate information relevant to the target age group and the important life transitions they face, they include material to help young people recognize and resist pressures to engage in drug use, they include comprehensive, personal, and social skills training to build resilience and help participants navigate developmental tasks, they provide accurate information regarding rates of drug use to reduce the perception that it is common and normative, they are delivered using interactive methods to stimulate participation and promote the acquisition of skills, they are culturally sensitive and include relevant language and audiovisual content familiar to the target audience, they include adequate dosage to introduce and reinforce the material, and they provide comprehensive interactive training sessions for providers to generate enthusiasm, increase implementation fidelity, and give providers a chance to learn and practice new instructional techniques.*

Botvin, G.J., Griffin, K.W., Paul, E. & Macaulay, A.P. (2003). Preventing tobacco and alcohol use among elementary school students through life skills training. *Journal of Child and Adolescent Substance Abuse, 12*(4), 1-17.

*The purpose of this study was to determine the effectiveness of a substance abuse prevention program in preventing tobacco and alcohol use among elementary school students in grades 3 through 6. Social resistance skills and general personal and social competence skills were the focus of the program. A total of 1,090 students from 20 schools were randomly assigned to receive the prevention program or to be in the control group. Findings showed that the students who had gone through the program reported less smoking in the past year, higher anti-drinking attitudes, increased substance use knowledge and skills related knowledge, lower normative expectations for smoking and alcohol use, and higher self-esteem when compared to control students at the time of the post-test. The annual prevalence rate was 61 percent lower for smoking and 25 percent lower for alcohol use in schools that had the prevention program. Mean self-esteem scores were also higher in schools with the program.*

Hammond, A., Sloboda, Z., Tonkin, P., Stephens, R., Teasdale, B., Grey, S.F. & Williams, J. (2008). Do adolescents perceive police officers as credible instructors of substance abuse prevention programs? *Health Education Research, 23*(4), 682-696.

*The attitudes toward instructors of prevention programming held by students from a national longitudinal evaluation of a school-based substance abuse prevention program delivered by Drug Abuse Resistance Education (DARE) officers were examined in this study. Findings showed that students who had police officers as instructors evaluated program instructors significantly higher than students who had non-police officers as instructors. The evaluation of police officers varied according to students' socio-demographic characteristics. There was a negative relationship*

*between attitudes toward police instructors and students' drug use and involvement in deviant behaviors which the authors suggest may be because students involved in illegal activities hold negative evaluations of police instructors in comparison to their peers not involved in illegal activities.*

Wechsler, H. & Nelson T. (2008). What we have learned from the Harvard School of Public Health college alcohol study: Focusing attention on college student alcohol consumption and the environmental conditions that promote it. *Journal of Studies on Alcohol and Drugs*, 481-490.

*The Harvard School of Public Health College Alcohol Survey examined more than 50,000 students in 120 colleges between 1993 and 2001. The article focuses on the role of the college alcohol environment in promoting heavy drinking by students. Results showed that over half of all college binge drinkers engage in binge drinking before their arrival on campus and that low cost of and easy access to alcohol are strong correlates to binge drinking. The author recommends comprehensive prevention efforts including limiting exposure to aggressive marketing, reducing easy accessibility to low-priced alcohol, and re-examining law enforcement.*



## Dissertation and Thesis Abstracts

Ansary, N.S. (2006). Antecedent-consequent associations between externalizing and internalizing distress and academic achievement: A study of affluent suburban adolescents Dissertation Abstracts International, 67(2), 1178B. Retrieved November 13, 2008, from PsycINFO.

*The relationship between externalizing (cigarette, alcohol, marijuana use, and delinquency) and internalizing (depression, physiological and worry-based anxiety) dimensions and academic achievement among a sample of wealthy adolescents was the focus of this dissertation. The lowest achievement group reported substantially greater levels of the externalizing behaviors than the highest achievement group. Girls who demonstrated low classroom adjustment behaviors were at a significantly greater risk for cigarette use, marijuana use, and depression regardless of academic grades. A greater risk for substance use and depression was implied among students whose grades were ranked one level lower than classroom adjustment. Intervention efforts targeting wealthy students at risk for academic underachievement and at risk of engaging in other problem behaviors are discussed in the full dissertation.*

Baskir, L.R. (2006). Cognitive impulsivity and behavioral problems in adolescents Dissertation Abstracts International, 67(5), 2856B. Retrieved November 21, 2008 from PsycINFO.

*The purpose of this research was to examine whether a large percentage of normal adolescents show the same cognitive impulsivity as adolescents who have committed minor offenses. The hypothesis states that many juveniles participate in minor offending behavior and/or externalizing behavior (aggression and/or substance use) in large part because of cognitive immaturity. A sample of 201 adolescents from a rural and high school in Pennsylvania were studied. Results showed that, when compared to adults, the majority of adolescents ages 16 years old and younger showed significantly high levels of cognitive impulsivity. High cognitive impulsivity and negative peer relationships predicted minor delinquency and high behavioral impulsivity, high familial conflict, and the highest levels of negative peer relationships predicted moderate or serious delinquency. The study shows that degrees of delinquent behavior exist and certain minor acts of delinquency or externalizing behavior may be influence by normative aspects of adolescent development. The author suggests that a variety of different and appropriate services should be provided to adolescents based on the offense committed and cognitive capacity.*

Bayens, C. (2008). A group for fathers of adolescent girls: How to understand, relate, and communicate. *Dissertation Abstracts International*, 69(2), 1315B. Retrieved November 18, 2008 from PsycINFO.

*This study examines the role of fathers in the lives of their adolescent daughters. The author states that past research has shown that fathers have a unique and positive influence on the psychological well-being of their children independent of mother-child relationships. She states that fathers have been shown to have more of an impact on their daughters than mothers do and that they are more influential concerning issues like perception of body image and dieting, self-esteem, depression, suicidal ideation, and alcohol and drug abuse. The study reviews the literature on father-child involvement with the purpose of developing a program to improve the understanding, closeness, and communication in the relationships between fathers and daughters in order to provide protection against the risk factors mentioned.*

Binggeli, A.L. (2005). How risky behaviors, protective factors and selected theory of planned behavior constructs influence age of sexual debut among high school students in the city of San Bernardino, California. *Dissertation Abstracts International*, 66(2), 843B. Retrieved November 13, 2008 from PsycINFO.

*The purpose of this study was to determine risk and protective factors associated with early sexual activity among adolescents. Youth Risk Behavior Survey data was used from the 2001 San Bernardino City School District. The findings suggested that risk factors for early sexual activity included substance use and emotional support from boy/girlfriend or sexual partner. The identified protective factors for delaying sexual activity included community connectedness and views against teen sex. The reporting of intention to have sex was associated with current alcohol and marijuana use, emotional support from boy/girlfriend or sexual partner and having a positive attitude toward sex.*

Brady, S.S. (2006). Impact of violence exposure on hostility, physiological arousal, and health in youth. *Dissertation Abstracts International*, 66(9), 5079B. Retrieved November 25, 2008 from PsycINFO.

*The effects of lifetime exposure to violence within the home and community and acute exposure to media violence on hostility, physiological arousal, and attitudes toward health risk behaviors were examined in this study. A sample of 100 male undergraduates ages 18-21 were randomly assigned to play a videogame either high or low in violent content. The participants were classified as reporting either low or high lifetime amounts of violence. Results showed that those who played the videogames higher in violent content showed greater changes in blood pressure and greater negative affect subsequent to game play when compared to those who played the low violence games. Participants who played the higher violent content games also*

*had more permissive attitudes towards alcohol and marijuana and were more competitive in a subsequent task. The greater the exposure to lifetime violence, the greater the changes in blood pressure and permissive attitudes towards alcohol and violence. This study shows the interaction between lifetime violence and laboratory media violence in predicting hostile attributions and how media violence is associated with permissive attitudes toward health risk behaviors that do not directly include hostility and aggression (alcohol and marijuana use).*

Branstetter, S.A. (2006). Parent-adolescent attachment, relationship qualities and monitoring: The influence on substance use and consequences. Dissertation Abstracts International, 66(7), 3940B. Retrieved November 25, 2008 from PsycINFO.

*The influence of parent-adolescent attachment on relationship support, conflict and parental monitoring, and how these factors combine to impact the use of substances and adverse consequences resulting from use was examined in this study. The sample included 200 high-school aged adolescents, their parents, and a self-selected best friend. Findings showed that secure relational views of attachment had a significant influence on reducing substance use and related problems over a one year period. The findings, however, do show that this influence is indirect and mediated by parental monitoring. The implications are that attachment increases parental monitoring, which in turn has a direct influence on reducing substance use.*

Comeau, M.N. (2003). Framing solutions: Adolescent girls and their relationships with alcohol. ProQuest, AAT NQ83702, 309. Retrieved October 8, 2008.

*This study aimed to learn more about the drinking behaviors of adolescent girls at high personality risk of alcohol abuse. Three separate studies were completed using both qualitative and quantitative methods. The first study was specifically about how girls compare with boys in their relationships with alcohol, the second was about how girls at particular risk of alcohol abuse understand their relationships with alcohol, and the third focused on how certain alcohol abuse brief early interventions work for at risk girls. Findings showed support for motive specific (coping/conformity and enhancement) brief interventions designed for clinical populations of adult women substance abusers for use in early intervention efforts with groups of at risk teenage female drinkers. Also, promise for personality matched early interventions in reducing heavy and problem drinking among teenage girls was found.*

Cottrell, L.M. (2007). Attachment and risk-taking among youth. Dissertation Abstracts International, 68(5), 1810A. Retrieved November 20, 2008 from PsycINFO.

*An analysis of the relative contributions of parental attachment, teacher support, school engagement, and peer affiliation to engagement in risk-taking behaviors was assessed in this study. The sample included 299 urban middle school students from 10-14 years old. Findings*



*showed that in general, higher levels of attachment, support, and engagement were associated with lower levels of risk taking.*

Crossman, A.F. (2007). The parent-child relationship and substance use: A test of the long-term mediating effects of self-esteem using data from the national longitudinal study of adolescent health. *Dissertation Abstracts International*, 68(4), 1675A. Retrieved November 19, 2008 from PsycINFO.

*The purpose of this study was to examine the role of parent-child relationships in the use of substances during young adulthood and whether self-esteem has long term mediating effects on the relationship between parent-child relationships and substance use. The sample included 5,000 adolescents from the National Longitudinal Study of Adolescent Health. Findings showed that high importance in religion is the most universal protective factor against alcohol, cigarette, and illicit drug use. Peer influence was strong for females- peer substance use was a factor for all three substances for females but not for males. For males, closeness with the mother during adolescence was a consistent predictor for use of the three substances in young adulthood. Mother-daughter relationships were not important predictors of substance use in young adulthood for females but father-daughter relationships were a predictor of substance use. Both the mother-son and father-son relationships were important predictors of substance use for males.*

Culver, K. (2008). Shut out: How hegemony, discouragement, and opportunity affect access to sports for low-income, urban girls. *Dissertation Abstracts International*, 69(1), 87A. Retrieved August 28, 2008 from Dissertation Abstracts Online.

The purpose of this study was to examine how poor, urban, African American girls are discouraged from opportunities to participate in sports and because of this are not able to experience benefits associated with female sports participation. The methods used included observations of a fifth grade class at a large, public K-8 school in Philadelphia and interviews with 12 fifth grade girls and 3 teachers. Findings showed that the role of the schools in discouraging girls from opportunities to play sports was significant. The author argues that the discouragement represents hegemony or dominance of the group in power. She argues that the girls in the study internalized and contributed to this hegemony by accepting their circumstances and supporting those in power through behaviors and beliefs that are traditionally enforced and unchallenged.

Du Mont, P.M. (2000). The effects of early menarche on health risk behaviors. *Dissertation Abstracts International*, 60(7), 3200B. Retrieved November 25, 2008 from PsycINFO.

*This study explored the effects of early menarche on the psychological development, health, and well-being of young girls. The sample included 327 female middle school students who*

*completed self-report measures of level of pubertal development, level of ego development, empathy, family warmth, interparental conflict, depression, and a modified version of the CDC Youth Risk Behavior Surveillance Survey. Results showed that the role of early menarche is an identifiable risk factor for early coital debut, early tobacco use and drug use.*

Engerman, K. (2002). A longitudinal study of ethnicity and socioeconomic status in relation to family decision-making style, peer group affiliation, drug use, and educational achievement of students in their 10<sup>th</sup> and 12<sup>th</sup> grades. Dissertation Abstracts International, 63(10), 3470A. Retrieved October 3, 2008 from Dissertation Abstracts Online.

*Parent oriented, joint oriented, and teen oriented family decision-making style in relation to affiliation with learning oriented and delinquent oriented peer groups, low, middle, and high educational achievement quartiles, and the use of cigarettes, alcohol, marijuana, and cocaine was examined longitudinally for the same set of students in their 10<sup>th</sup> and 12<sup>th</sup> grade. The data came from the National Education Longitudinal Study of 1988 and included 16,489 students. The findings showed that in 10<sup>th</sup> grade the parent oriented family decision-making style adolescents were more likely to be affiliated with more learning oriented peers, be in the low educational achievement quartile, and not use cigarettes, alcohol, and marijuana. In 12<sup>th</sup> grade, teen oriented family decision-making style adolescents were more likely to be affiliated with more delinquent oriented peers, be in the high educational achievement quartile, and use cigarettes, alcohol, marijuana, and cocaine.*

Estonactoc, G.C.V. (2004). Hostile-coercive parenting, adolescent deviant behavior, affiliation with peers who drink, and adolescent alcohol use. Dissertation Abstracts International, 65(2), 1026B. Retrieved November 25, 2008 from PsycINFO.

*This study examined the relationships between parent-adolescent relational quality, adolescent behavior, and peer affiliation and their contributions to adolescent alcohol use. The sample included 206 early adolescent boys ranging from 12-15 years old from two Los Angeles area public schools and parents (89 fathers and 105 mothers). Questionnaires were used. Findings showed that peer affiliation and adolescent deviant behavior mediates the relationship between parent-adolescent relational quality and adolescent alcohol use. The study showed that parent monitoring mediates the relationship between parent-adolescent relational quality and peer affiliation as well as parent-adolescent relational quality and adolescent alcohol use.*

Fernando, R.C. (2008). Does parental monitoring influence the use of alcohol and drugs among inner city 7<sup>th</sup> grade students? *Masters Abstracts International*, 46(4), 2099. Retrieved October 1, 2008 from *Dissertation Abstracts Online*.

*Associations between parental monitoring and adolescent alcohol/drug use were examined in this study. The sample included 981 7<sup>th</sup> grade students from 10 inner city middle schools 3 months after they attended a HIV, STD, and pregnancy prevention program. Findings showed that perceived parental monitoring, less permissive parental monitoring, greater supervision (public places), greater supervision (teen clubs), and less time spent with older teens were significant and protective for the moderate and high risk groups. Perceived parental monitoring was significantly associated with the moderate risk group and perceived parental monitoring, less time spent with older teens, and greater supervision (public places) were significantly protective for the high risk group.*

Finn Jr., P.R. (2006). An evaluation of the effects of a leisure education curriculum on delinquents' motivation, knowledge, and behavior changes related to boredom. *Dissertation Abstracts International*, 67(11), 4343A. Retrieved October 3, 2008 from *Dissertation Abstracts Online*.

*The impact of a leisure education curriculum on a population of delinquent youth in a randomized experiment was assessed. This study was based on the theory that periods of free time may lead to substance abuse, teen pregnancy, and juvenile delinquency. Findings showed that delinquent youth who received the program reported higher intrinsic motivation and better use of free time and also reported improved decision-making related to their involvement in healthy, prosocial free time activities. The improvement in the delinquent youths' motivation influenced a significant decrease in the delinquent youths' proneness to boredom during their free time.*

Fleming-Milici, F. (2006). Is this ad targeting me? The effects of perceiving oneself as a target of alcohol advertising for people under the legal drinking age. *Dissertation Abstracts International*, 67(2), 660A. Retrieved October 1, 2008 from *Dissertation Abstracts Online*.

*The extent to which youth perceive they are targeted by alcohol ads, the variables that predict the perception of oneself as a target of alcohol ads, and the perception of oneself as a target in relationship to exposure and attention to alcohol ads is examined in this study. Longitudinal methods were used in the form of computer-aided telephone interviews. The sample included youth ages 14-19 from a purchased list of randomly selected US households. The four waves of interviews included 2083, 1594, 1140, and 840 youth. Findings showed that for both teens who drank an average amount and teens who did not drink at all, thinking of themselves as targets*

*of alcohol ads increased the amount of ads the teens saw and the amount of attention they paid to the ads. When people felt more targeted by alcohol ads, they normally felt they saw more alcohol ads. Of the youth surveyed, 93% felt targeted to some degree by alcohol advertising. A linear increase was found in feeling targeted by alcohol ads from ages 14-17 with 17 and 19 years olds feeling targeted at the same level. The teens felt more targeted by beer ads than by liquor ads.*

Fowler, F. (2003). 'Do as I say and not as I do!' Adolescent alcohol use: The impact of parental attitudes and behaviors. Dissertation Abstracts International, 64(5), 1861A. Retrieved November 25, 2008 from PsycINFO.

*The relationship between adolescent drinking behavior and parental influences (supportive attitudes and parental alcohol consumption) was examined. The sample included 756 parents and their adolescents living in a Midwestern state. Findings showed that both adolescents' perceptions of parental expectations and parental supervision were significant predictors of adolescent drinking behavior. Older adolescents were significantly and substantially more likely to drink and older adolescents' alcohol behaviors were more sensitive to parental supervision and parental attitudes. Parental drinking had little effect on adolescent drinking.*

Fredriksen, K. (2006). The gateway theory and adolescent substance use. Dissertation Abstracts International, 67(6), 3448B. Retrieved November 25, 2008 from PsycINFO.

*The effectiveness of the gateway theory in predicting adolescent substance use progression was examined. Quantitative methods included three waves of data from 238 youths throughout middle school. Qualitative methods explored youths' perceptions of substance use progression and the role played by the gateway theory, family support, and sports involvement during high school. The results did not support the gateway theory (too simplistic). Findings showed that for a subset of youth, sports involvement can trigger the gateway effect. For youth who reported higher levels of cigarette or alcohol use in 7<sup>th</sup> grade, sports involvement was a risk factor and predicted higher 8<sup>th</sup> grade drug use. However, for youth who reported less use of substances in 7<sup>th</sup> grade, sports involvement predicted drops in 8<sup>th</sup> grade drug use. Family support was a protective factor for youth involved in early substance use but not for non-users.*

Garner, R. (2007). Adolescent substance use: Trajectories of use, the effects of childhood behavior problems on trajectories of use, and the effect of pubertal timing on the initiation of high use behaviours. Dissertation Abstracts International, 68(6), 3724B. Retrieved November 21, 2008 from PsycINFO.

*This study consisted of three different areas that focused on the patterns of substance use exhibited by adolescents and factors that may be associated with such behaviors. The first segment was about trajectories of substance use among adolescent and gender differences in*

*the patterns of use. Findings showed that patterns of initiation showed no gender differences but post-initiation use of substances did show important differences. The second part describes trajectories of behavior problems during childhood as reported by mothers, and determines how such behaviors are related to trajectories of substance use initiation during adolescence. Findings showed that children with high levels of externalizing or internalizing problems were most likely to follow early initiating trajectories of substance use. The final section modeled the relationship between pubertal timing and substance use. Findings showed that compared to on-time maturing youth, late maturers had the lowest hazard of initiating problematic substance use behaviors. Early maturers had the greatest hazard of initiating during early adolescence but those who had not initiated problematic use prior to 14 were less likely than on-time maturing youth to initiate these behaviors.*

Gaughan, M. (2000). Predisposition and pressure: Getting drunk in adolescent friendships. Dissertation Abstracts International, 60(12), 4610A. Retrieved November 25, 2008 from PsycINFO.

*This study evaluated how selection and influence of friendships affects friends' frequency of drunkenness using the National Longitudinal Study of Adolescent Health data set. Findings showed that boys tended to have a greater impact on their female friends than females had on their male friends. Peers do influence one another and the study shows that the influence processes persist over time.*

Gilbreth, J.G. (2001). Family structure and interparental conflict: Effects on adolescent drinking. Dissertation Abstracts International, 61(7), 2936A. Retrieved November 25, 2008 from PsycINFO.

*How parents' relationships with each other affect their relationship with their children and the affect on adolescent drinking is examined in this study. The sample included 715 parent/guardian and adolescent pairs from a Midwestern state. Findings showed that interparental conflict does disrupt the social control processes. Conflict was related to lower levels of family attachment, parental monitoring, and normative regulation. Adolescents who reported they lived in single parent families and stepfamilies reported lower levels of family attachment, but family structure was not significantly related to the other two social control variables. Lower levels of attachment and monitoring were significant predictors of adolescent drinking. According to this study, the effects of family structure on adolescent drinking could be explained by levels of interparental conflict and the effects of interparental conflict seemed to work through decreased levels of attachment and monitoring.*

Gonsalves, L. (2008). Do relationships matter? The role of social/relational capital during emerging adulthood. *Dissertation Abstracts International*, 68(9), 3745A. Retrieved November 11, 2008 from PsycINFO.

*The effects of social capital on alcohol use, depressive symptoms, and perceived health during adolescence and emerging adulthood are examined. Bonding social capital is defined as being developed from primary relationships within the family and community while bridging social capital is established through networks of relationships outside of these primary social ties. Findings showed that emotional support received from father, mother, and family have protective effects on alcohol use in high school, decrease depressive symptoms in high school, and improve perceived health in high school and emerging adulthood. Socioeconomic status, activities, emotional connection to adults through activities, and religion all have varying influence on decreasing alcohol use and depressive symptoms, and improving perceived health outcomes in high school, emerging adulthood and over time. Bridging social capital plays a vital role during both adolescence and emerging adulthood, and that bridging social capital is more influential than bonding social capital in decreasing alcohol use and improving perceived health during adolescence.*

Hessler, D.M. (2008). Family stressors, emotional competence, and adolescent risky behavior. *Dissertation Abstracts International*, 69(2), 1359B. Retrieved November 18, 2008 from PsycINFO.

*A multi-method approach was used to examine children's emotional competence (awareness, regulation, comfort with expression, and remediation) as a mediator of relations between family stressors and risky behavior. Questionnaire and semi-structured interview methods were used. Findings showed that family stressors had a negative effect on several areas of children's emotional competence. Exposure to stressors in early childhood predicted problems with emotional competence in middle childhood. Deficits in children's emotional competence during middle childhood and adolescence were associated with increased adolescent risky behavior including: higher levels of substance use and sexual activity, and greater externalizing and internalizing problems. Mother depression emerged as a consistent predictor of adolescent behavior through children's emotional regulation abilities. Parental warmth was found to be a protective factor from the negative effects of family stressors and associations with deviant peers was an additional risk factor for engaging in risky behavior during adolescence.*

Hicks, R.E. (2006). The influence of unreciprocated best friends on adolescent alcohol use. Dissertation Abstracts International, 67(5), 2835B. Retrieved November 21, 2008 from PsycINFO.

*The relative influence of unreciprocated and reciprocated best friends on adolescent alcohol use behaviors, the relative strength of unreciprocated best friend influence, and the success of alcohol use conformity in establishing reciprocated friendships was examined in this study. Findings suggested that adolescents are influenced by the alcohol use behavior of their best friend when the relationship is reciprocated. For a subgroup of adolescents with unreciprocated best friends, those without any reciprocated friend, best friends influenced them on their subsequent alcohol use behaviors. Those relationships were seen only in the prediction of frequency of alcohol use, not for initiation of alcohol use. Modest support was shown that initiation of alcohol use facilitated the formation of reciprocated friendships with similar peers.*

Hodgkinson, M.L.M. (2008). Alcohol, tobacco, and other drug use among adolescents: Examining sensation seeking, sport, and psychosocial mediators. Dissertation Abstracts International, 68(8), 3340A. Retrieved November 13, 2008 from PsycINFO.

*The relationship between sport participation and alcohol, tobacco, and other drugs (ATOD) was examined in this study. The sample included 239 students from health classes in three high schools in a suburban central Texas location. The students mean age was 16. Findings showed favorable attitudes and subjective norms towards ATODs had a strong, positive effect on ATOD use. An interaction between sports and ATOD use with sensation seeking was supported by the data. Compared to the other students, ATOD use was lower for sports participants but it was not lower when compared to extracurricular activity participants.*

Johnson, S.A. (2005). The relationship of parenting with adolescent problem behaviors and healthy development: An application of a motivational model of development. Dissertation Abstracts International, 65(10), 5436B. Retrieved November 25, 2008 from PsycINFO.

*The relationship between parenting and adolescent outcomes within the context of healthy adolescent development was examined. The study also looked at the effects of alcohol and marijuana use on adolescent competence. Participants included 4,090 students in grades 8-12. Findings showed that adolescents with authoritative parents experienced the best outcomes followed by warm authoritarian, permissive, authoritarian, mediocre, rejecting, and indifferent parents. For 8<sup>th</sup> graders, any trial of alcohol or marijuana was associated with lower levels of overall competence. For grades 9 and 10, triers of alcohol were not significantly less competent than nonusers. In grades 11 and 12, triers of alcohol and triers of marijuana were not significantly less competent than nonusers. Parental monitoring of adolescents was higher*

*among triers than among more frequent users. The study concluded that parental warmth moderated the relationship between risk factors and problem behaviors.*

Kim, S. (2001). Prevention of adolescent substance use: An investigation of cross-level interaction effects of self, peer, family, and school level risk and protective factors using multilevel modeling. *Dissertation Abstracts International*, 61(9), 3466A. Retrieved on November 25, 2008 from PsycINFO.

*The main effects of protective and risk factors that work at both individual and contextual levels, and cross-level interaction effects across the adolescent, family, peer, and school domains were assessed. National Educational Longitudinal Survey data was used. Findings showed that at the student level, internality, positive peer value, and parent concern or control worked as protective factors against substance use. The number of friends who dropped out of school and parents' divorce were risk factors for adolescent substance use development. At the school level, school programs for promoting parental support/involvement, reducing negative impacts of family, and promoting extracurricular activities were protective factors. The connection or interaction between school staff and parents buffered the effects of individual level risk factors.*

Lachausse, R.G. (2008). Parental characteristics and parental monitoring: Effects of parental influence on adolescent disclosure, parent knowledge, and adolescent risk behavior. *Dissertation Abstracts International*, 69(3), 1987B. Retrieved on November 18, 2008 from PsycINFO.

*In this study, parental characteristics that effect parental knowledge and adolescent risk behavior were examined. A sample of 196 students in grades 9-12 completed questionnaires. Findings showed that parental behavioral control, parental legitimacy, and parental responsiveness were all related to adolescent alcohol, tobacco, and other drug use (ATOD). These parental characteristics were also found to indirectly affect adolescent ATOD use through parent knowledge and adolescent disclosure. High parental knowledge was associated with adolescents who have lower levels of ATOD use and who are less likely to associate with peers who use ATODs. The author concludes that parents can prevent adolescent problem behavior by becoming more knowledgeable about their children's lives and by attempting to control their child's associations and activities.*

Long, L.H. (2008). Relationship between extent of extracurricular participation, employment, and substance use among middle and high school students. *Dissertation Abstracts International*, 68(11), 4620A. Retrieved on November 13, 2008 from PsycINFO.

*The relationship between student use of substances and extent of participation in school and/or community sponsored sport or nonsport activity and extent of employment was examined. The*



*sample included 24,699 public school youth in grades 6-12 who completed the Duval Secondary Substance Use and Violence Survey. Findings showed a higher percentage of respondents who participated in 11 or more hours of sport/athletic activity or nonsport activity reported using substances almost every day than did respondents who participated in 1-5 hours of activity. A higher percentage of students reported using alcohol almost every day when involved in greater than 20 hours of work per week and 11 or more hours of sports/athletic or nonsport participation than did those with less involvement in activity in conjunction with work at any level. The author concluded that extracurricular programs and student employment may function as protective factors in discouraging adolescent substance use but may also place the student at greater risk for substance abuse when such involvement exceeds 20 hours per week in work and more than 11 hours per week of extracurricular activity.*

Lubbers, D. (2005). Cognitive mediators of adolescent drinking. *Dissertation Abstracts International*, 66(3), 1724B. Retrieved on November 25, 2008 from PsycINFO.

*The influence of refusal self-efficacy and peer group social behavior as cognitive mediators of the more distal influence of antisocial behavior in relation to binge drinking and problem drinking was the focus of this study. The sample consisted of 12<sup>th</sup> grade high school students. Findings showed that there is a relationship between social or peer based outcome expectancy beliefs and adolescent alcohol misuse- increased social enhancement expectancies are related to increased use of alcohol in the form of alcohol misuse. Decreased self-efficacy beliefs of abstaining from alcohol were found to be related to increased drinking. Refusal self-efficacy beliefs were strong predictors of alcohol misuse. The relationship between emotional and behavioral problems and adolescent alcohol use was supported. Increased antisocial behavior was associated with increased alcohol use and antisocial behavior was also a predictor of both problem drinking and binge drinking. Almost half of the effects of the relationship between antisocial behavior and alcohol use and between antisocial behavior and binge drinking were explained by the cognitive mediator variables of social outcome expectancies and refusal self-efficacy.*

Mackinnon, D. (2007). Moderators of the peer context of alcohol use among black and white adolescents. *Dissertation Abstracts International*, 68(3), 876A. Retrieved on November 19, 2008 from PsycINFO.

*This study examined how the peer contexts of Black and White youth influence adolescent drinking behavior, while considering the moderating influences of family and school contexts. Data from the Context of Adolescent Substance Use was used. Findings showed some differences between Black and White youth in predictors of alcohol use and that the behavior of the peer context- peer alcohol use- was the most salient predictor for adolescent alcohol behaviors. Attachment to the mother attenuated the influence of mother's alcohol use on*

*recent alcohol use for both Black and White youth and on recent heavy alcohol use for White youth only. Results showed the strength of attachment to and reported alcohol use of other adolescent social contexts are important in transmitting pro-social or deviant norms.*

Marshall, K.J. (2008). Body image, depressed mood, weight concerns, and risky sexual behaviors among female adolescents. Dissertation Abstracts International, 68(10), 6616B. Retrieved on November 19, 2008 from PsycINFO.

*The relationship between body image, having a depressed mood, and weight control behaviors and how these may translate into risky sexual behaviors among Dallas Independent School District (DISD) adolescent females was examined. Data from the 2003 Dallas Youth Risk Behavior Survey was used (grades 9-12; mostly African American and Hispanic). Findings showed that African American and Hispanic adolescents had a depressed mood, and more Hispanics had an unrealistic body image compared to Caucasians. Depressed mood was found to be a predictor of engaging in risky sexual behaviors. Engaging in weight control was a significant predictor for using alcohol/drugs before last sexual intercourse.*

Maxwell, K.A. (2000). Do friends matter? The role of peer influence on adolescent risk behavior. Dissertation Abstracts International, 61(10), 5624B. Retrieved on October 8, 2008 from ProQuest.

*This study examined whether any random friend, best friend, or a peer group shaped an adolescent's risk behavior. Data from the AddHealth data set was used which included a sample of 1,969 adolescents aged 12-17 years old. Findings showed that there is a main effect for peer influence and it is equivalent across risk behaviors. Adolescents were twice as likely to engage in a risk behavior if their friend participated in the activity at time one. Peer influence was shown to be both harmful and protective. For cigarette and marijuana use, there was only evidence to initiate the risk behavior while for alcohol consumption there was equal influence to conform to friends who drank and friends who did not drink. For chewing tobacco, there was significantly more influence to stop chewing than to begin. Results showed that best friends are not more influential than other close peers which suggests that adolescents have multiple friends who exert equal levels of influence.*

Mendle, J. (2008). Association of early pubertal timing with externalizing behavior in adolescent girls. Dissertation Abstracts International, 69(1), 689B. Retrieved on November 18, 2008 from ProQuest.

*How early physical development in adolescent girls relates to three different domains of externalizing behavior: alcohol use, delinquency, and risky sexual behavior was examined in this study. Findings showed a causal role of pubertal timing. Effects were mediated along shared environmental rather than genetic pathways.*

Mogro-Wilson, C. (2008). Latino adolescent alcohol use: The role of acculturation and parenting styles. *Dissertation Abstracts International*, 68(7), 3150A. Retrieved on November 25, 2008 from PsycINFO.

*This study examines the lack of knowledge on parenting and the parent-youth relationship in Latino families in the context of acculturation and its effects on alcohol use. The Add Health data set was used. Findings showed that high amounts of parental control function positively for Latino families, which is contrary to some findings for non-Latino families. Parental warmth significantly reduced alcohol use and also positively impacted the parent-youth relationship which decreased alcohol use. When families spoke English in the home, parental control decreased, which lead to an increase in alcohol use. Warmth continued to decrease alcohol use for both Mexican American and Puerto Rican youth but parental control did not significantly affect alcohol use for either subgroup. Acculturation level of the parent caused a significant decrease in parental control if the parent was born in the US for only the Mexican American subgroup.*

Niemeier, M.L. (2007). Substance use among Hispanic early adolescents: Influence of family, peers, and culture. *Dissertation Abstracts International*, 68(5), 3426B. Retrieved on November 21, 2008 from PsycINFO.

*The roles of parenting styles, linguistic acculturation, ethnic identity, gender, and socioeconomic status in the development of substance abuse among Hispanic adolescents was examined. The sample included 309 8<sup>th</sup> graders who self-identified as either Latino/Hispanic or Mexican. Findings showed that parenting styles were predictive of substance use, as measured by having close friends who drink alcohol and/or use drugs. There was a relationship between parental involvement and risk of alcohol use with parental monitoring in particular important in the lowered risk of alcohol and drug use. Linguistic acculturation was a significant predictor of risk of substance use with monolingual English speakers at greatest risk of alcohol use.*

Ostrowsky, M.K. (2007). Extending khantzian's self-medication hypothesis: An examination of low self-esteem, depression, alcohol use, marijuana use, and violent behavior. *Dissertation Abstracts International*, 68(2), 739A. Retrieved on November 19, 2008 from PsycINFO.

*Some of the potentially important causes and consequences of alcohol use and marijuana use among adolescents were identified in this study. Longitudinal data from the Rochester Youth Development Study was used. Findings showed that high self-esteem increases violent behavior among late adolescent girls. Results suggest that drug use, in general, does not further exacerbate negative psychological states. Also, alcohol use had a positive effect on violent behavior for early adolescent girls.*

Pasch, K.E. (2007). Parenting practices and early adolescent alcohol use in urban, ethnically diverse youth. *Dissertation Abstracts International*, 68(5), 2996B. Retrieved on November 20, 2008 from PsycINFO.

*How parenting practices influence alcohol behaviors and intentions throughout early adolescence in three groups (all students, sixth grade non-users of alcohol, and sixth grade users of alcohol) was examined in this study. A sample of 5755 students from the Project Northland Chicago Intervention Trial were used. Findings showed that children's perceptions of parenting influence alcohol use over time. Perceptions in increases in parenting practices (more consistent parental monitoring, more frequent parent-child communication) are related to decreases in the normative trajectory of alcohol use. Children's perceptions of alcohol specific communication had the strongest influence on the normative trajectory of alcohol use, with the alcohol-specific communication being associated with less alcohol use. Alcohol-specific communication was, however, the least frequently occurring of all parenting practices. Parents' perceptions of parental monitoring had the strongest influence on alcohol use compared with the other parenting practices. Increased monitoring was associated with decreased alcohol use. The study found that parents' and children's perceptions of parenting practices, while significantly correlated, were quite different. Another finding was that parenting practices were not as influential once children have begun using alcohol.*

Pizer, R. (2000). Getting loaded: Adolescent girls' stories of substance abuse and treatment. *Dissertation Abstracts International*, 60(9), 4933B. Retrieved on November 25, 2008 from PsycINFO.

*The purpose of this study was to examine the experiences of culturally diverse adolescent girls with substance use and recovery. The sample included 8 adolescent girls who had completed long-term treatment at a drug treatment program. Interviews were used to collect data. Findings showed that family problems such as chemical dependency and parental absence were extremely common among participants' families. Childhood physical and sexual abuse was also common. Most participants suffered sexual trauma and exploitation while they were seeking drugs or intoxicated. Substance use was described as numbing the pain and shame from early and ongoing sexual trauma, though it also increased the risks of further exploitation and harm. Participants reported engaging in other risky behaviors including stealing, fighting, and reckless driving. Race differences did not appear to be prominent however class did emerge as a differentiating factor with girls from poor families starting to use chemicals earlier, staying in inpatient treatment longer, and coming from more chaotic families. Increased parental limit setting was necessary to motivate the participants to enter treatment and stay there. Every girl reported that family work during treatment improved her family's functioning in the long term (family problems were brought out in the open and communication improved).*

Poleshuk, A.L. (2007). The developmental trajectory of male adolescent alcohol use. *Dissertation Abstracts International*, 68(2), 1318B. Retrieved on November 20, 2008 from PsycINFO.

*This study examined the relationship between attachment and male adolescent alcohol use to determine whether components of the parent-child relationship, specifically affective quality, communication, trust, fostering of autonomy, emotional support, and alienation influenced the use of alcohol in male adolescents during life-cycle transition periods. Findings showed that high levels of alienation in the parent-child relationship were significantly associated with high degrees of problem alcohol use. Participants who were in their senior year of high school on average reported more symptoms and consequences of problem alcohol use than those in their freshman year in high school. The data suggested that participants who perceived parental alienation were more likely to experience problem alcohol use if they were in an advanced grade in high school.*

Ramchand, R. (2006). Clocking out: Adolescent work experiences and drug involvement in an urban environment. *Dissertations Abstracts International*, 67(4), 1956B. Retrieved on August 22, 2008 from ProQuest.

*The relationship between the early work experiences of youth and their involvement with tobacco, alcohol, and marijuana are examined. A sample of 799 youth who were recruited at entry into first grade or who joined the classroom during the year were studied in an ongoing longitudinal study conducted by the Johns Hopkins Prevention and Intervention Research Center. Findings showed that approximately 25% of youth in wave 10 and 38% of youth in wave 11 reported working for pay during the school year. At both time periods, most of the youth worked in fast food or other restaurants or in retail stores. At wave 10, the time youth spent working for pay was linked with current use of tobacco and marijuana and problem use of alcohol. For youth who had not yet reported using each drug, those who began working between waves 10 and 11 were 8 times more likely to start using tobacco than non workers and twice as likely to report starting to use alcohol. Youth who started to work who did not exhibit problem use in wave 10 were also more likely to report incident problem use of tobacco than non-workers. By wave 11, most of the cross-sectional associations between work and substance use disappeared although spending more than 10 hours per week working at this wave was linked with problem tobacco use.*

Renes, S.L. (2008). Factors affecting substance abuse in adolescent females in rural residential communities. *Dissertation Abstracts International*, 69(1), 382A. Retrieved on November 13, 2008 from PsycINFO.

*The relationship between gender identity, peer relationships, and parental relationships and adolescent female substance use is examined for adolescent females living in rural environments. The sample included females ages 12-15 who attended middle school in two rural Washington State communities. Levels of current or 30 day use of alcohol, marijuana, and cigarettes were consistent with national levels of use. The level of inhalant use was more than twice the national level. European American and Hispanic/Spanish/Latino ethnic groups showed a higher risk for current use of cigarettes, marijuana, and amphetamines and American Indian/Alaska Natives showed a higher risk for current alcohol use than Asian Americans, Native Hawaiians, and African Americans. The gender identity of aggressive masculinity was found to be the best predictor of illegal substance use while peer and parental attachment offered some protection from illegal substance use for the population.*

Rodriguez, R.A. (2005). Examining the role of acculturation among dually diagnosed Hispanic adolescents. *Dissertation Abstracts International*, 66(3), 1734B. Retrieved on November 25, 2008 from PsycINFO.

*The relationship between adolescent acculturation and parent-adolescent acculturation differences and adolescent substance use, psychiatric comorbidity, and family functioning among a group of severely impaired, comorbid Hispanic youth referred for residential substance abuse treatment was examined in this study. Findings showed that the Hispanic adolescents not born in the United States (less acculturated teens) tended to report greater frequency of drug use. A significant correlation was seen between adolescents born in the United States and parents born outside of the United States and frequency of alcohol use. In families where acculturation differences were more evident, alcohol use by teens was more frequent.*

Rogers, R.M. (2001). Common childrearing practices and strategies of parents of very successful high school seniors. *Dissertation Abstracts International*, 61(11), 4287A. Retrieved on November 13, 2008 from PsycINFO.

*The parenting processes and strategies that contributed to successful students during the four major life stages of their children were examined. The four major life stages included 0-5 years old, 1<sup>st</sup>-5<sup>th</sup> grade, 6<sup>th</sup>-8<sup>th</sup> grade, and high school. Findings showed that the role of the parent had a pivotal influence on children's success. Similarities and significant parenting factors included that nearly all of the parents graduated from high school and a very large percentage graduated from a four-year university, the majority of homes had a stay home parent through the critical child rearing years, the majority of homes had two or more children, nearly all of the*

*students lived with two parents, the focus of discipline was not punitive or physical in nature, the majority of parents enforced good study habits, the majority of students lived in close proximity to the school and participated in organized sports and other extra-curricular activities, and the vast majority of the students were not employed part time or more during their high school years. The author concludes that these parents know their children well and the level of recollection for all of the questions asked in the instrument showed attention to detail and evidence of a watchful parent who has taken the time to know the child well.*

Rood, C.L.B. (2008). Risk and protective factors related to female/male use of alcohol in grades 7-12. Dissertation Abstracts International, 68(12), 4939A. Retrieved on November 13, 2008 from PsycINFO.

*Risk and protective factors related to the use of alcohol during a 30 day time frame were analyzed for 7<sup>th</sup>- 12<sup>th</sup> grade males and females. The sample included 666 students who participated in the spring 2003 Grand Forks, North Dakota Public Schools Youth Risk and Protective Factor Survey. Findings showed that non-users were more likely to have protective factor influences (personal perception, parent perception, and positive beliefs). Users were more likely to have risk factor influences (other drug use, friend's influence, school drug use, alcohol, tobacco, and other drug (ATOD) school availability, and ATOD community availability. There were specific risk and protective factors that influenced the non-use and use of alcohol by males and females at all grade levels. There were very few differences for male and female users. Males were higher on only two of the factors.*

Roy, B.K. (2005). Personality and alcohol use expectancies of adolescent abstainers, experimenters, and abusers. Dissertation Abstracts International, 66(3), 905A. Retrieved on November 25, 2008 from PsycINFO.

*The differences in personality characteristics, alcohol outcome expectancies, and subjective evaluations of alcohol outcomes among adolescents who self-reported their addictive substance levels as abstainer, experimenter, and abuser were examined. The sample included 410 adolescents from a high school located in a suburb of Detroit, Michigan. Findings showed that living with both parents acted as a protective factor against substance abuse. No significant differences emerged between abstainers and experimenters on any of the personality measures. Abusers showed significant differences that indicated pathology as compared to the abstainers and experimenters. Significant differences were found for alcohol expectancies and alcohol evaluations when comparing the three groups. Abusers were found to have higher levels of positive expectations and lower levels of negative expectations when compared to the abstainers and experimenters. Abstainers evaluated the positive effects of alcohol less favorably than those classified as experimenter or abuser. Adolescents in the abstainer and experimenter groups viewed the negative effects of alcohol similarly and less favorably than the*

*abusers. Sensation seeking correlated significantly with five of six alcohol expectancy scales and all six evaluation scales. Sensation seeking accounted for 20% of the variance in substance use frequency.*

Schmidt, M.G. (2004). The roles of gender, aggression, and peer influence in the development of alcohol use in adolescence. *Dissertation Abstracts International*, 65(5), 2671B. Retrieved on November 25, 2008 from PsycINFO.

*Gender differences in developmental trajectories of alcohol use in adolescence were examined. Findings showed that differences were evident. Both relational and overt forms of aggression predicted adolescent alcohol use among both boys and girls. The age and gender of key peers influenced adolescent boys' and girls' experiences of peer pressure, susceptibility to peer influence, and alcohol use in both similar and different ways.*

Shaver, A.E. (2004). Patterns of rule-violating behavior in children and adolescents. *Dissertation Abstracts International*, 65(1), 452B. Retrieved on November 25, 2008 from PsycINFO.

*The influence of individual, family, and environmental factors on the development of rule-violating behaviors over time was analyzed in this study. A total of 508 children and adolescents and their parents were sampled from a longitudinal study of bereavement and depression. Findings showed that parent and child reports of behavior were correlated, but parents reported less substance use and sexual activity, and more unruly behavior overall. Reported sexual activity was higher among girls and older adolescents. Use of alcohol was greatest among those with normative pubertal development. Sensation seeking predicted increased unruly behavior in younger children, but had no effect for older adolescents. Depression significantly predicted more unruly behavior, but effects on alcohol use and drug use interacted with age and differed for parent and child reports. Conduct disorder (CD) symptoms were linked with increased sexual activity, and predicted greater alcohol use and more unruly behavior among older adolescents. CD symptoms predicted more drug use among depressed youth, but decreased drug use in non-depressed participants. Older adolescents living in two parent households at study entry reported less alcohol use. Parent psychopathology predicted greater sexual activity. Positive family functioning predicted decreased unruly behavior and drug use, and healthy parental marital relationships predicted less unruly behavior. Exposure to psychosocial stressors and significant life events predicted more overall unruly behavior and drug use. Involvement in family activities protected against alcohol use and unruly behavior in the presence of psychosocial stressors. Parental marital conflict increased the risk for drinking, but only in the presence of psychosocial stressors.*



Sheth, T.R. (2003). Teens and alcohol: A consumer behavior analysis of interpersonal communication and mass media effects. *Dissertation Abstracts International*, 65(3), 765A. Retrieved on August 27, 2008 from ProQuest.

*The relationship between social marketing and liquor industry advertising with interpersonal communication between a teen and peers, a teen and parents and a teen and other adults with alcohol consumption behavior was analyzed in this study. Data from the Monitoring the Future study was used. Findings showed no significant effect of either social marketing efforts or liquor industry advertising on teen drinking from 1998 to 2001. Significant differences were found between males and females in terms of communication variables and alcohol use. Males relied upon peers for drinking support, and females who reported more time spent with adults over 30 drank less. There was a time lag effect between the communication variables and alcohol use. As satisfaction with friends and time spent with others increased, over time, alcohol use also increased. The strength of the teen peer network influenced drinking behavior.*

Smithline, C.W. (2000). Spirituality as a protective factor against adolescent substance abuse. *Dissertation Abstracts International*, 61(5), 2799B. Retrieved on November 13, 2008 from PsycINFO.

*Spirituality as a protective factor against adolescent substance abuse was investigated in this study. The sample included 196 adolescents from a suburban county of a major Western city. Findings showed several relationships between adolescent spirituality and substance use patterns, which appeared to be influenced by the religiosity of the adolescent and the developmental maturation of the adolescent. A positive relationship between spirituality and substance abuse was evidenced for non-religious adolescents. The authors suggested that this means that adolescents without a religious background may seek spiritual experiences through alcohol and other drug use. Spirituality was found to be positively related to age of first use, and for religious adolescents to the age when they first began using regularly.*

Stevens-Watkins, D. (2008). Examining correlates of and change in substance use among young adulthood African American males. *Dissertation Abstracts International*, 69(2), 1346B. Retrieved on November 18, 2008 from PsycINFO.

*Correlates of substance use among African American males during young adulthood and factors during adolescence that predicted substance use during young adulthood were examined. Data from the National Longitudinal Study of Adolescent Health (Add Health) study was used. Findings indicated that religiosity, substance use during adolescence, and peer substance use were all related to substance use during young adulthood. Religiosity was found to serve as a protective factor among African American young adults, with those endorsing higher levels of religiosity reporting lower levels of alcohol use. African American males that reported using*

*marijuana and cocaine during adolescence were more likely to report using cocaine during young adulthood. African American males that reported having higher numbers of friends that used alcohol and marijuana during adolescence reported a higher frequency of alcohol use during young adulthood.*

Stewart, C.W. (2002). Adolescent drinking patterns: A cluster analytic approach. Dissertation Abstracts International, 62(11), 5413B. Retrieved on November 25, 2008 from PsycINFO.

*The purpose of this study was to identify the multidimensional nature of adolescent drinking patterns, to examine the age, gender, social class, and ethnic differences in the drinking typologies, and to compare the drinking typologies on the consequences of drinking, reasons for drinking, antisocial behaviors, and self-esteem. A sample of 1,838 high school students participated in the Adolescent Attitude Survey. The drinking typologies identified included light, parent, family occasion, date, moderate-friend, party, outdoor, and heavy multiple-context. Findings showed that light, parent, and family occasion drinkers reported the highest levels of self-esteem and the lowest levels of drinking consequences, reasons for drinking, and antisocial behavior. Heavy multiple-context drinkers reported low self-esteem and high levels of antisocial behavior and drinking reasons and consequences. Party and date drinkers fell between these groups on the drinking and adjustment variables, with the main exception that date drinkers were as likely to engage in antisocial behavior as were the heavy multiple-context group. Outdoor drinkers showed the highest levels of self-esteem, high levels of antisocial behavior, and moderate levels of drinking reasons and consequences.*

Trim, R.S. (2007). Neighborhood SES and family mobility effects on adolescent substance use in a high-risk longitudinal sample. Dissertation Abstracts International, 68(6), 4145B. Retrieved on November 21, 2008 from PsycINFO.

*The effects of neighborhood-level risk factors and family mobility on adolescent substance use were examined using a high-risk sample of children of alcoholics (COAs) and demographically matched controls. For non-COAs, neighborhood SES positively predicted alcohol use and alcohol consequences, while family mobility negatively predicted externalizing symptoms. Among COAs, neighborhood SES negatively predicted drug use onset and was marginally negatively predictive of alcohol use and consequences, while family mobility positively predicted drug use and drug consequences. The three conclusions drawn by the authors were (1) neighborhoods influence developing adolescents differently depending on their level of family risk of alcoholism, (2) neighborhood SES and family mobility have differential effects on adolescent substance use outcomes, and (3) neighborhood SES and family mobility are meaningful predictors of adolescent substance use that could be meaningful targets for prevention and intervention efforts.*

Van Drimmelen, B. (2002). Teens understanding of the indicators of the tendency to abuse alcohol: Focus group discussions. *Masters Abstracts International*, 40(6), 1334. Retrieved on October 8, 2008 from ProQuest.

*The purpose of this study was to help society understand that efforts are being made to educate teens in regards to the indicators of alcohol abuse, though the efforts are diverse and sporadic. The study also finds that teens do not understand what those indicators are.*

Westling, E.H. (2008). Timing of pubertal maturation and substance use: Gender differences in family, peer, and individual difference factors. *Dissertation Abstracts International*, 69(3), 1991B. Retrieved on November 18, 2008 from PsycINFO.

*The moderators and mediators of the relationship between pubertal maturation and initiation and use of cigarettes, alcohol, marijuana, and inhalants was examined using a sample of over 1000 mostly at risk youth from an existing data set. Findings showed that both early maturing boys and girls were more likely to try alcohol and cigarettes compared to non-early maturers. By adolescence there were no significant differences between early, on-time, or late pubertal maturers and rates of substance use. Parental monitoring moderated the relationship between early pubertal timing and alcohol initiation for boys and girls, and affiliation with deviant peers mediated the relationship between early pubertal timing and cigarette and alcohol initiation for girls but not for boys. Early maturing boys showed positive growth in social competence but early maturing girls showed negative growth in social competence over time, and higher social competence was associated with less affiliation with deviant peers for boys and girls. Athletic competence was not associated with early pubertal timing for either sex.*

Wilson, N. (2001). Adolescents at risk for alcohol, tobacco, and other drug use: Influences of the neighborhood, sense of hope, and societal risk factors. *Dissertation Abstracts International*, 61(7), 3547B. Retrieved on November 25, 2008 from PsycINFO.

*The relationship between students' beliefs and their ATOD-use behaviors and the interrelationship of these beliefs and their demographic circumstance were examined in this study. A sample of 568 middle school students were surveyed. Results showed that proportionally more adolescents who had initiated ATOD use lived in neighborhoods in which they reported more frequently seeing acts of social disorder (drinking on the street, drug use, police arrests, fights, stealing, and robbery). There was a statistically significant negative association between adolescents' sense of hope and use of ATOD, as well as an interaction between neighborhood disorder, sense of hope, and ATOD use. Through additional ethnographic accounts, the author found that socioeconomic and political factors often interacted with demographic factors to close the opportunity structures for youth, and that this*

*closure becomes a risk factor that impinges on the hopes and aspirations of at-risk youth, limiting their capacities to fully participate in society.*

Winicour, D.B. (2007). Outcome expectancies, best-friend use, perceived family support, and coping variables as predictors of substance use among at-risk adolescents. Dissertation Abstracts International, 68(2), 472A. Retrieved on November 19, 2008 from PsycINFO.

*This study examined the relationship among personal, social, family, and coping variables with respect to alcohol, tobacco, and marijuana use by adolescents at risk for substance use. The sample included 63 middle and high school students who had been placed in an alternative therapeutic high school because they had been diagnosed with emotional and behavioral disorders. Findings highlighted the roles of family and peer context in predicting an adolescent's choice to use alcohol, tobacco, or marijuana. The importance of family support and best friend influence on adolescent substance use was apparent.*

Wright, A.J. (2006). Resistance to peer and advertising pressure and substance use in an early adolescent, urban minority sample. Dissertation Abstracts International, 66(9), 5128B. Retrieved on November 25, 2008 from PsycINFO.

*Peer and advertising resistance and observed measures of skill in both of these domains was related to concurrent and longitudinal self-reported use of cigarettes, alcohol, and marijuana, as well as risk for using these substances, including attitudes and intentions to use. Participants were from a primarily minority, urban middle school sample. Findings showed that peer pressure resistance use and ability together were associated with concurrent use of any of the three substances, and resistance use alone was associated with changes in risk category for marijuana from 6<sup>th</sup> to 7<sup>th</sup> grade. Peer pressure resistance was not associated with changes in actual use from 6<sup>th</sup> to 7<sup>th</sup> grade though. Advertising resistance use and ability together were associated with concurrent risk of using cigarettes and marijuana as well as changes in risk category for using alcohol from 6<sup>th</sup> to 7<sup>th</sup> grade. Although advertising resistance was not associated with concurrent use of any of the three substances in 6<sup>th</sup> grade, it was associated with use longitudinally. The author concludes that this study shows more promising results for advertising resistance than peer pressure resistance, though both should be useful in adolescent problem behavior prevention programs.*

Xue, J. (2006). Cultural orientation and Chinese adolescents' drinking practices. Dissertation Abstracts International, 67(2), 476A. Retrieved on November 21, 2008 from PsycINFO.

*A Chinese adolescent cultural orientation scale was developed to explore the influence of westernization on Chinese adolescents' drinking practices in China in this study. The sample included 909 tenth-eleventh grade students from Beijing and 1,021 tenth-eleventh grade students from Haikou. Findings showed that cultural orientation was associated with drinking*

*frequency but not with drinking quantity because the drinking quantity measures proved unreliable. Students with western orientation were more likely to be drinkers and drink more frequently than students with indigenous orientation. Students with bi-cultural orientation were more likely to be drinkers and drink more frequently than students with marginal cultural orientation.*

## Non-Profit and Government Reports

### NON-PROFIT

#### **Battelle**

“Interim Drug Free Communities Program Evaluation Findings Report” (2008)

*This report highlights the results of interim analyses that were conducted to respond to ONDCP questions before the full evaluation of the Drug Free Communities (DFC) program is completed in 2009. The results in this report examine how trends in reported 30-day use among DFC coalitions compare to reported use at the national level (YRBS data). Communities with DFC coalitions were compared to communities without DFC coalitions. Analyses were also conducted to determine differences in past 30-day substance use rates by coalition typology (i.e., stage of maturity) and if these rates differ as a function of grade level and drug type. Findings of the report showed that between 2006 and 2007, past 30-day rates for all DFC coalitions have declined for all three drugs measured (alcohol, tobacco, marijuana) and for all grades (9-12). In 2007, maturing and sustaining coalitions reported lower past 30-day use rates when compared to establishing and functioning coalitions, for all three drugs and for all grades measured (9-12). In 2006, there were few differences between coalition type and past 30-day use rates for marijuana and tobacco. However, past 30-day use rates reported for alcohol were lower in both 2006 and 2007 for maturing and sustaining DFC coalitions when compared to establishing and functioning coalitions.*

#### **British Nutrition Foundation**

“Primetime Television Impacts on Adolescents’ Impressions of Bodyweight, Sex Appeal, and Food and Beverage Consumption” (2004)

*The purpose of this report was to highlight the findings of a study that focused on the influence of television characters on adolescent behaviors and social norms. The methods involved a content analysis of 10 TV shows frequently watched by 12 to 17-year-olds in the US media market. A sample of 524 youth were surveyed. Findings showed that 12% had a BMI for age over the 95<sup>th</sup> percentile, 50% reported watching more than 2 hours of TV each day and 59% reported less than 60 minutes of exercise and physical activity each day. More than 35% reported eating pizza and pasta frequently. Beer and wine were seen as the most frequently consumed beverages on TV, while 63.9% reported soda as their personal beverage of choice. The authors concluded that television’s focus on sex appeal, thinness, and alcohol may have a powerful impact on adolescents’ self-esteem, body satisfaction and health behaviors.*

## ***[The] Center on Alcohol Marketing and Youth***

*“Exposure of Hispanic Youth to Alcohol Advertising, 2003-2004” (2005)*

*This report is based on a study that The Center on Alcohol Marketing and Youth (CAMY) commissioned Virtual Media Resources (VMR) to conduct. The purpose of the study was to analyze the exposure of Hispanic youth, ages 12-20, to alcohol advertising in English language magazines, on English and Spanish language radio stations, and on television programming in both languages in 2003 and 2004. Findings showed that Hispanic youth, like youth in general, are exposed to substantial amounts of alcohol advertising on a per capita basis and that in several instances the exposure of Hispanic youth exceeds that of youth in general on a per capita basis.*

*Specific findings included:*

*\*In 2004, compared to all youth, Hispanic youth ages 12-20 saw 20% more alcohol advertising per capita in English language magazines than youth in general.*

*\*For the 10 brands with the most exposure among Hispanic youth in English language magazines, Hispanic youth saw between 33% and 74% more advertising per capita than did all youth ages 12-20.*

*\*In the summer of 2003, in six of the top 20 markets by Hispanic population, Hispanic youth heard more radio alcohol advertising than youth in general. In the summer of 2004, this occurred in seven of the top 20 markets by Hispanic population.*

*\*In those 20 markets in 2004, three brands- Beck's, Budweiser and Coors- exposed Hispanic youth to substantially more radio advertising per capita than youth in general.*

*\*On television, alcohol advertising appeared on 14 of the 15 programs most popular with Hispanic youth in 2003 and 2004, up from 12 programs in 2002.*

*“Underage Drinking in the United States: A Status Report, 2005” (2006)*

*The Center on Alcohol Marketing (CAMY) at Georgetown University completed this report on underage drinking. This report highlights the most recent data and other relevant research on underage drinking, focuses and advances our current understanding of underage drinking, and seeks to prompt action to protect children from underage drinking and its consequences. The main highlights of the report are as follows:*

*\*Alcohol use among young people under 21 is the leading drug problem in the United States.*

*\*Girls are binge drinking more.*

*\*Underage drinking has serious consequences.*

*\*Underage youth continue to find alcohol easily accessible.*

*\*Youth exposure to alcohol advertising is substantial.*

*\*Long-term studies have shown that youth who see, hear, and read more alcohol ads are more likely to drink and drink more heavily than their peers.*

*\*Much more needs to be done.*

## **Child Trends**

“Promoting Well-Being Among America’s Teens” (2002)

*Child Trends undertook a comprehensive study of the programs and other antecedents that lead to desired outcomes across several domains of adolescent health and well-being. The psychological, physical, and social components of adolescent health and well-being were examined. The report includes findings from more than 1,100 rigorous studies. Overall, it was found that multi-component programs that engage youth in thoughtful and enjoyable activities, promote social connections, involve parents, and are long-lasting appear to be the most promising for effecting multiple positive outcomes. Also, implementing programs when youth are younger can be an efficient method of encouraging positive development in adolescence. The ten main points that were suggested can provide program-developers and policy-makers with the best practices promoting positive adolescent development in multiple domains include the following:*

- \*the existence of adolescent behaviors clusters*
- \*parent-child relationships are key to adolescent development and well-being*
- \*peer influences are important and can be positive*
- \*siblings, teachers, and other adults/mentors provide additional support*
- \*taking a holistic approach*
- \*engaging youth*
- \*targeting desired outcomes*
- \*starting young and sustaining the effort*
- \*the criticalness of implementation*
- \*thinking positive*

*The next steps for research were identified as conducting more multivariate, longitudinal research, evaluating program interventions with experimental studies, examining the whole adolescent (including family, school, community, media, etc.), and increasing the research base on cultural influences on adolescent development.*

## **[The] International Center for Alcohol Policies**

“What Drives Underage Drinking? An International Analysis” (2004)

*The basis of underage drinking from epidemiological, biomedical, and cultural perspectives were examined in this report. The report is divided into two parts. The first consists of three articles. The first examines the epidemiological data on underage drinking, the second reviews the biomedical aspects of early alcohol exposure, and the third is a section on cultural considerations. The second part includes commentaries that assess the articles’ implications for researchers and policy-makers. From an epidemiological perspective, the author concludes that further efforts are necessary in developing international criteria sensitive to cultural differences and calls for youth and gender specific surveys and research, in particular from “wet” and developing regions and adolescent drinking should not only be interpreted in terms of risks and*



*negative effects, but that increased attention should be given to cultural, social, and personal factors of moderate consumption. From a biomedical perspective, the article summarized that while most teenagers are exposed to alcohol, few develop the patterns of drinking that lead to problematic drinking and alcohol dependence. According to the author, stressors of adolescence may trigger early alcohol use and misuse, particularly in individuals whose genetic background or early life experiences place them at risk. From the cultural perspective, the author says the question at stake is not how to regulate and control the use of alcohol to benefit the world's adolescents, but rather how to learn from those societies that have successfully integrated healthy alcohol consumption into their social, religious, and family life. One commentary author argues for a less rule-based governmental approach, especially in dry countries. He makes the case for "changing the culture" by tackling underage drinking as part of a broader societal pathology. Government's real influence here is limited and much emphasis is to be placed on the public health community and public-private partnerships, that would include the industry.*

*"ICAP Periodic Review on Drinking and Culture" (2008)*

*Alcohol consumption is an integral part of the social fabric in most societies. Yet the role occupied by drinking is quite different across countries and cultures, and is reflected in local customs, patterns, and attitudes. Despite this wide diversity, the lingua franca of the alcohol field is English, as are the publications that provide the evidence base most commonly used in international policy discussions. As a result, much of the research published in other languages and reflecting different cultural contexts and approaches escapes broader notice.*

*The ICAP Periodic Review on Drinking and Culture is an electronic publication that seeks to help remedy this disparity. Its key objectives are to:*

- (1)** give greater exposure to research not currently published or widely available in English;*
- (2)** broaden the range of cultural perspectives and the evidence base used in the crafting of policy and prevention.*

*Each issue of the Periodic Review presents English translations of abstracts of articles appearing in language areas currently underrepresented in major English-language research databases. The abstracts are grouped by topic and country. Coverage of the Periodic Review is limited to psychosocial and socio-cultural research, to focus on drinking culture, behavior, patterns, and psychosocial outcomes. Identification and selection of key research to be featured and all editorial decisions are carried out by the Editorial Group, consisting of experts from diverse geographic, linguistic, and discipline areas. ICAP serves as a coordinating center for receiving the nominations, arranging translations, and publishing the Periodic Review.*

*The inaugural issue of the Review features abstracts of journal articles published in the past five years in Central, Southern, and Eastern Europe. In subsequent issues, new research will be highlighted, and the geographic focus may be expanded to include other regions.*

*The publication will be updated and disseminated semi-annually, beginning in October 2008. It is supported by a page on the ICAP website ([www.icap.org](http://www.icap.org)), which serves as public repository of Periodic Review issues and related materials.*

*It is hoped that this publication will become a reliable tool for researchers internationally, bolstering the common evidence base and laying the foundation for developing prevention and*

*intervention approaches that would take into account cultural variations in drinking patterns and outcomes.*

### **National Bureau of Economic Research**

“Alcohol Advertising and Alcohol Consumption by Adolescents” (2003)

*The effects of alcohol advertising on adolescent alcohol consumption were examined in this paper. The Monitoring the Future (MTF) and National Longitudinal Survey of Youth 1997 (NLSY97) data sets were used. Results showed that blacks participate in alcohol less than whites and their participation cannot be explained with the included data set variables as well as it can for whites. A comparison of male and female regression shows that price and advertising effects are generally larger for females. Models that control for individual heterogeneity result in larger advertising effects implying that the MTF results may understate the effect of alcohol advertising. Results based on the NLSY97 suggest that a complete ban on all alcohol advertising could reduce adolescent monthly alcohol participation by about 24 percent and binge participation by about 42 percent. The authors conclude that both advertising and price policies are shown to have the potential to substantially reduce adolescent alcohol consumption.*

### **[The] National Center on Addiction and Substance Abuse at Columbia University (CASA)**

“The Commercial Value of Underage and Pathological Drinking to the Alcohol Industry” (2006)

*This report examines the commercial value of underage and pathological drinking to the alcohol industry. Based on 2001 data, CASA revealed that the alcohol industry depends on underage and pathological drinking for a minimum of \$48.3 billion or 37.5% of total consumer expenditures for its products and as much as \$62.9 billion or 48.8%. Early initiation of alcohol use financially supports the industry by the amount consumed by underage drinkers and the contribution of underage drinking to maintaining a supply of adult pathological drinkers. The authors conclude that if unchecked, the alcohol industry stands to gain at least one-half trillion dollars in cash revenues over the next decade from product sales to underage and pathological drinkers. This represents a profound conflict of interest with the public health.*

“Teen Tipplers: America’s Underage Drinking Epidemic” (2002)

*Surveys and focus groups were conducted with adults, with or without children under the legal drinking age, to determine their attitudes, views, and thoughts regarding the problem of underage drinking. This report assesses the extent and consequences of underage drinking and documents the pathways to use and abuse of alcohol by children and teens. It identifies the obstacles that hamper efforts to prevent underage drinking, including the economic interests of the alcohol industry in teen alcohol consumption, the ready availability of alcohol to minors, parental attitudes, and the influence of the media and advertising. Several suggestions are discussed to help reduce underage drinking such as reducing availability, reducing demand, restricting advertising, and creating public policies to limit teen illegal access to alcohol.*

## ***[The] Partnership for a Drug-Free America***

“19<sup>th</sup> Annual Partnership Attitude Tracking Study” (2007)

*The 2006 Partnership Attitude Tracking Study (PATS) surveyed 1,356 parents with a deeper analysis of parents of teens in grades 7 through 12. PATS is a deep analysis into parental attitudes and behaviors towards teen drug use that has been conducted since 1993. The top findings were that parents feel they need more help talking with their kids about living healthy and drug-free lives and understanding constantly shifting drug trends. The number of frequent discussions between parents and teens about the risks of drug abuse has decreased significantly. There was a 12 percent decline from 2005 in the frequent discussions (four or more) between parents and their teens about the dangers of drug and alcohol abuse (55 percent in 2005 down to 49 percent in 2006). According to the data, nearly one-third of parents say they have a need for more information about drugs, 30 percent say they need tips on how to start a discussion about drugs, 37 percent reported they want information on how to tell if a child is using drugs. A growing number of parents don't just want information; they want advice on what to do and best approaches to having open and honest dialogues with their kids. The research continues to show that kids who learn a lot about the risks of drugs at home are up to 50 percent less likely to use drugs, yet only 31 percent of kids report learning about the risks of drugs from their parents. Teens report that the most important reason they don't use drugs is because they don't want to disappoint their parents.*

“20<sup>th</sup> Annual Partnership Attitude Tracking Study” (2008)

*Based on the 2007 Partnership Attitude Tracking Study of 6,511 teens (PATS Teens), the number one reason teens see for using drugs is to deal with the pressures and stress of school. About 73 percent of teens reported that school stress is the primary reason for drug use. The accompanying 2007 Partnership Study of parents attitudes about teen drug use showed that parents severely underestimate the impact of stress on their teen's decision to use drugs. Only 7 percent of the parents believed that teens might use drugs to cope with stress. In previous PATS Teen studies, when teen respondents were asked to select from a number of reasons for using drugs, the number one reason (65 percent) selected was to “feel cool”. The 2007 study was the first to offer the option of selecting school stress as a motivator, one which nearly 3 out of 4 teens (73 percent) strongly agreed with. This was followed by “feeling cool” (65 percent) and “feeling better about themselves” (65 percent). Over the past decade, studies have indicated a steady changing trend in what teens perceive as the motivations for using drugs. The “to have fun” rationales are declining, while motivations to use drugs to solve problems are increasing. The 2007 PATS Teens study confirms that overall substance abuse remains in steady decline among teens. PATS research consistently shows that kids who learn a lot about the risks of drugs at home are up to 50 percent less likely to use than those who do not. Yet, only 32 percent of teens report that they are getting this message from their parents.*

## **RAND**

“Preventing Underage Drinking: Using Getting to Outcomes with the SAMHSA Strategic Prevention Framework to Achieve Results” (2007)

*The purpose of this guide is to help communities through a systematic process of planning, implementation, and evaluation that will improve results in reducing and preventing underage drinking. The overarching framework for this guide is the Strategic Prevention Framework (SPF) developed by SAMHSA. The SPF is a five-step approach to prevention that encourages comprehensive assessment, planning, and evaluation. The guide is designed to provide information on how a community can utilize the SPF to address issues related to underage drinking by answering the 10 GTO accountability questions. These 10 questions lay out actions to take when planning a high-quality underage drinking prevention strategy. Each chapter includes suggestions/ideas on how to answer the accountability questions, a summary checklist for each question, and a case example of how a real community addressed the accountability questions. The appendices contain worksheets and tools to plan, implement, and evaluate most environmental strategies. The chapter provide guidance on how communities can:*

- \* get organized and begin to better understand their needs regarding underage drinking*
- \*conduct an assessment of the underlying needs and conditions that must be addressed to reduce underage drinking*
- \*develop goals and objectives based on the identified needs*
- \*assess the current level of capacity and how to enhance that capacity to reduce underage drinking*
- \*choose the most appropriate evidence based environmental strategies*
- \*assess the current “fit” within the community context of the strategy chosen and how to enhance that fit*
- \*develop a plan for reducing underage drinking*
- \*conduct a process evaluation of the underage drinking prevention strategy*
- \*conduct an outcome evaluation of the underage drinking prevention strategy*
- \*conduct a continuous quality improvement process*
- \*sustain successful underage drinking prevention strategies*

“Current-Generation Youth Programs: What Works, What Doesn’t, and at What Cost?” (2008)

*In this report, the costs, benefits, and cost and benefits relative to one another for youth programs that are offered during the time that students are not in school. Most of the programs are targeted to at-risk groups. The youth programs considered were before and after school programs, enrichment programs, specialized after school programs (such as mentoring and tutoring), summer learning programs, and intervention programs to prevent drop outs and other teen problems. The costs associated with many of the more prominent youth programs were reviewed. They found that most cost data excludes key cost elements and, thus, underestimates the full cost of replicating a program. The report says the current generation of youth programs can provide modest positive impacts on academic achievement, academic attainment, and social behaviors, such as pregnancy, and most of the benefits of youth*

*programs are concentrated in programs that are more resource intensive. They recommend that future rigorous evaluations of youth programs seek to measure a larger (and consistent) set of outcomes to facilitate cost-benefit analysis. There is enough evidence to suggest that some more carefully crafted and implemented youth programs can improve important youth academic and behavioral outcomes. They can reduce drug and alcohol use, violence, crime, and teen pregnancy and births, and they can improve high school graduation rates and enrollment in post-secondary schools. The evidence from all these program evaluations, which are based on at-risk groups, is strongest for programs that are costlier and provide more intense resources to youth. There is a lack of evidence that less-expensive, less resource intensive programs, such as after school programs, benefit youth. They conclude that more research is needed to assess lower-cost programs and to assess whether there are ways to reduce short term adverse effects.*

## **SADD**

### **“Sixth Annual Teens Today Study” (2005)**

*In the sixth annual Teens Today report, the data shows that almost half of America’s high school teens report parental inattention to what they consider to be key transitions during their adolescence. The study suggests that this lack of timely parental involvement in important “rites of passage” comes with a high price tag: the potential for dangerous behaviors that can lead to illness, injury, or death as teens seek alternative milestones to demonstrate growing maturity and independence. High school teens whose parents pay the least attention to significant transition periods (42 percent), such as puberty, school change, and key birthdays, are more likely than teens whose parents pay the most attention (18 percent) to engage in high-risk behaviors, including drinking and drug use, early sexual intercourse, and dangerous driving. They are more than twice as likely to report daily stress and appear to be twice as likely to report being depressed and bored. Teenagers in the 9<sup>th</sup> through 12<sup>th</sup> grades who reported high levels of parental attention were significantly less likely than those who reported low levels of parental attention to use alcohol and marijuana or to have ever illegally used prescription drugs. The report states that American culture has been largely stripped of the formal demarcations of significant life changes that marked passage for earlier generations and still form the basis for transition and celebration in other cultures. Seeking affirmation of growth and movement toward maturity, many young people then create their own demarcations involving alcohol and other drug use, early sexual behavior, and dangerous driving. This research makes clear the incredibly influential role that parents can play in guiding their teenage children toward safe, healthy choices.*

### **“Seventh Annual Teens Today Study” (2006)**

*More than 3,300 middle and high school teens across the country were surveyed for the seventh annual Teens Today study. Findings showed that teens who identify at least one influential, “natural” mentor in their life (a person not assigned by a formal mentoring program) report that they have a higher sense of self and are more likely to take risks that affect their lives positively. The study showed that 46 percent of teens with a mentor reported a high sense of self versus 25*

*percent of teens who did not identify a natural mentor in their life. Teens with mentors reported that they are significantly more likely than teens without mentors to challenge themselves by taking positive risks such as joining an athletic team or volunteering. More than half of teens (56 percent) say the absence of a mentor would negatively affect them. The number of mentors teens have or the range of topics teens can discuss with a mentor significantly influences decisions teens make around drinking, drug use, and sex. About 35 percent of teens with no mentor have a low sense of self (versus 12 percent of mentored teens). Teens with mentors are significantly more likely than those without mentors to report frequently feeling happy and less likely to report feeling regularly depressed. Teens rank family members, friends, teachers, counselors, and coaches among the most influential people in their lives. While parents clearly play the most influential mentoring role in the lives of their children, it is also clear that peers and other “significant” adults can, and do, affect important developmental outcomes. This research shows that adults who make extra efforts to connect with teenagers can have a profound impact in guiding our nation’s youth.*

## GOVERNMENT

### *Office of Applied Studies*

“The NSDUH Report: Parent Awareness of Youth Use of Cigarettes, Alcohol, and Marijuana” (April 24, 2008)

*The 2006 National Survey on Drug Use and Health (NSDUH) included a sample of parents and their children who live in the same household. Parent-child pairs in NSDUH were composed of a child aged 12-17 and his or her biological, step, adoptive, or foster parent. NSDUH asks youth ages 12-17 about alcohol and illicit drug use during the past year. Adults in the parent-child sample are asked whether they think their child has used alcohol or other drugs during the past year. This report uses data from the paired sample to examine overall rates of youth cigarette, alcohol, and marijuana use in the past year, as well as parent awareness of their child’s use of these substances. The data indicated that 17.0 percent of youth ages 12-17 used cigarettes in the past year, 32.9 percent used alcohol, and 13.2 percent used marijuana. Youth substance use in the past year was generally higher within one parent households than within two parent households for both mother-child and father-child pairs and was generally highest among youth in father-child pairs within one parent households. Parent awareness of youth use of cigarettes and alcohol in the past year increased with the youth’s increasing age among both mother-child and father-child pairs. Rates of parent awareness of youth substance use in the past year were generally higher among mothers in mother-child pairs than among fathers in father-child pairs and were generally highest among mothers in mother-child pairs within one parent households.*

“The NSDUH Report: Quantity and Frequency of Alcohol Use among Underage Drinkers” (March 31, 2008)

*The National Survey on Drug Use and Health (NSDUH) asked persons aged 12 or older to report the frequency and quantity of their alcohol use during the 30 days prior to the interview. Respondents who drank alcohol in the past 30 days are asked for the number of days they consumed alcohol in the past month and the average number of drinks consumed per day on the days they drank. This report focuses on the frequency and quantity of past month alcohol use among underage drinkers. Comparisons of the quantity and frequency of alcohol use in the past month are made between underage drinkers and drinkers aged 21 or older. All findings presented in the report are based on combined 2005 and 2006 NSDUH data. Combined 2005 and 2006 data indicate that an annual average of 28.3 percent of persons ages 12 to 20 in the United States (an estimated 10.8 million persons annually) drank alcohol in the past month. Past month alcohol users aged 12 to 20 drank on an average of 5.9 days in the past month and consumed an average of 4.9 drinks per day on the days they drank in the past month. Underage drinkers aged 12 to 20 consumed, on average, more drinks per day on the days they drank in the past month than persons aged 21 or older (4.9 vs. 2.8 drinks).*

“The NSDUH Report: Underage Alcohol Use: Where do Young People Drink?” (August 28, 2008)

*The 2006 National Survey on Drug Use and Health (NSDUH) asked past month alcohol users aged 12 to 20 how they obtained the last alcohol they drank and where they were when they consumed it. This report examines age related changes in the locations where male and female underage drinkers use alcohol. It also examines differences by college enrollment and living situation for those aged 18 to 20. Findings presented in the report are based on 2006 NSDUH data. A majority (53.4 percent) of current alcohol users aged 12 to 20 drank at someone else’s home the last time they used alcohol, and another 30.3 percent drank in their own home. The percentage of underage alcohol users who had their most recent drink in a car or other vehicle peaked at 10.0 percent at age 16 (12.8 percent of females and 7.3 percent of males). Among 20 year old current drinkers, 20.0 percent of females drank in a restaurant, bar, or club the last time they used alcohol compared with 10.2 percent of males.*

“The NSDUH Report: Depression and the Initiation of Alcohol and Other Drug Use among Youths Aged 12 to 17” (May 3, 2007)

*The National Survey on Drug Use and Health (NSDUH) included questions for youth ages 12 to 17 to assess lifetime and past year major depressive episodes (MDE). It also asked them to report on their use of alcohol and illicit drugs in their lifetime and in the past year. Respondents who reported use of a given substance were asked when they first used it and responses to these questions were used to identify persons at risk for substance use initiation and to identify recent initiates. This report examines past year MDE, past year initiation of alcohol and illicit drug use, and the association between MDE and the initiation of alcohol or other drug use in the past year among youth ages 12 to 17. All findings in the report are based on 2005 NSDUH data. In 2005, 8.8 percent of youths ages 12 to 17 (2.2 million persons) experienced at least one MDE in the past year. Among the youth who were at risk for alcohol initiation, those who experienced a past year MDE were twice as likely to have initiated alcohol use in the past year as those who did not have a past year MDE (29.2 percent versus 14.5 percent). Among youth who were at risk for illicit drug initiation, those who experienced a past year MDE were over twice as likely to have initiated use of an illicit drug as those who had not experienced an MDE in the past year (16.1 percent versus 6.9 percent).*

“The NSDUH Report: Underage Drinking in Rural Areas” (August 27, 2004)

*This report presents comparisons from the 2002 NSDUH on the prevalence of any past month and binge alcohol use among persons below the legal drinking age (aged 12 to 20) who lived in rural and non-rural areas. In 2002, about 10.0 percent of persons aged 12 to 20 (an estimated 4 million people) lived in rural areas. Youth ages 12 to 17 who lived in rural areas reported higher rates of past month and binge alcohol use than non-rural youths. Among those aged 18 to 20, rural persons reported lower rates of past month use than non-rural persons. Youth ages 12 to 17 in rural areas reported lower levels of perceived risk from alcohol use, less disapproval of alcohol use, and less perceived parental disapproval of youth alcohol use than those in non-rural areas.*



“The OAS Report: A Day in the Life of American Adolescents: Substance Use Facts” (October 18, 2006)

*This issue of The OAS Report presents facts about adolescent substance use, including information on the initiation of substance use, past year substance use, and receipt of substance use treatment. The data presented in this report are from the 2006 National Survey on Drug Use and Health (NSDUH), the 2005 Treatment Episode Data Set (TEDS), and the 2005 National Survey of Substance Abuse Treatment Services (N-SSATS). According to the 2006 NSDUH, 10.6 percent of adolescents aged 12 to 17 drank alcohol for the first time in the past year, and 5.8 percent used an illicit drug for the first time. Also, more than 8 million adolescents aged 12 to 17 drank alcohol in the past year, nearly 5 million used an illicit drug, and more than 4 million smoked cigarettes. TEDS reported that in 2005 there were 142,646 admissions for adolescents aged 12 to 17 to substance abuse treatment programs. TEDS also indicates that on an average day in 2005, the number of adolescent admissions to substance abuse treatment were referred by the following sources: 189 by the criminal justice system, 66 by self-referral or referral from other individuals, 43 by schools, 37 by community organizations, 22 by alcohol or drug treatment providers, and 18 by other health care providers.*

#### **Institute of Medicine National Research Council**

“Reducing Underage Drinking, A Collective Responsibility” (2004)

*In response to a congressional request in the Department of Health and Human Services (DHHS) fiscal 2002 appropriations act, the Board on Children, Youth and Families of the National Research Council and the Institute of Medicine formed the Committee on Developing a Strategy to Reduce and Prevent Underage Drinking. The committee was directed to review a broad range of federal, state, and nongovernmental programs and to develop a cost-effective strategy to reduce and prevent underage drinking. This report highlights the proposed strategy developed by the committee. The strategy calls for development of a national campaign to engage adults in a concerted effort to stop enabling or ignoring youth drinking. It calls on the alcohol industry to enter a partnership with government and other private funders to implement a coordinated, evidence-based approach to reducing underage drinking. It proposes steps to increase compliance with laws against selling or providing alcohol to minors. It calls for reducing youth exposure to alcohol advertising or music and other entertainment with products and ads that glorify drinking. It recognizes the potential importance of school-based education approaches and the need for residential colleges and universities to implement comprehensive approaches. It calls on local leaders to apply the multiple tools available to address underage drinking within the context of their communities. It challenges federal and state governments to coordinate their efforts and to raise excise taxes to reduce underage consumption and raise revenues for the proposed strategy. Finally, it recommends ongoing monitoring and continued research and evaluation to facilitate continued refinement of the strategy and its implementation.*

## **Centers for Disease Control and Prevention**

“Morbidity and Mortality Weekly Report: Youth Risk Behavior Surveillance- United States, 2007” (2008)

*Priority health-risk behaviors, which are behaviors that contribute to the leading causes of morbidity and mortality among youth and adults, often are established during childhood and adolescence, extend into adulthood, are interrelated, and are preventable. The Youth Risk Behavior Surveillance System (YRBSS) monitors six categories of priority health risk behaviors among youth and young adults, including behaviors that contribute to unintentional injuries and violence, tobacco use, alcohol and other drug use, sexual behaviors that contribute to unintended pregnancy and stds, unhealthy dietary behaviors, and physical inactivity. In addition, YRBSS monitors the prevalence of obesity and asthma. YRBSS includes a national school-based survey conducted by CDC and state and local school-based surveys conducted by state and local education and health agencies. This report summarizes results from the national survey, 39 state surveys, and 22 local surveys conducted among students in grades 9-12 during 2007. Since 1991, the prevalence of many health-risk behaviors among high school students nationwide has decreased. However, many high school students continue to engage in behaviors that place them at risk for the leading causes of mortality and morbidity. The prevalence of most risk behaviors does not vary substantially among cities and states. YRBSS data are used to measure progress toward achieving 15 national health objectives for Healthy People 2010 and three of the 10 leading health indicators, to assess trends in priority health-risk behaviors among high school students, and to evaluate the impact of broad school and community interventions at the national, state, and local levels.*

## **Department of Health and Human Services**

“U.S. Teens in Our World: Understanding the Health of U.S. Youth in Comparison to Youth in Other Countries” (2003)

*This report investigates areas where U.S. adolescents’ health or health related behaviors emerged as significantly different from those of adolescents in other countries in positive, negative, or suggestive directions. The data comes from the International Health Behavior in School-Aged Children (HBSC) study, which has coordinated comparable, nationally representative school-based surveys of teens every 4 years since 1985-86. The HBSC study examines adolescent health and health-related behavior in the context of family, school, and peers, using international comparisons to demonstrate common factors and highlight differences associated with cultural influences. This report provides data on teens age 15 years old, although the study addresses teens age 11, 13, and 15 years. Results are presented on (1) health and well-being, (2) Fitness, (3) Family and Peer Relationships, (4) School Environment, (5) Smoking and Alcohol Use, and (6) Violence. Overall, U.S. youth are more likely to have stomachaches, headaches, backaches, and difficulty sleeping than students in most other countries, possibly related to fitness levels. U.S. students find it easy to make new friends but are among the least likely to consider students in their classrooms kind and helpful. U.S. youth*

*are less likely to smoke than students in most countries. They rank relatively high for never or rarely feeling safe at school.*

*“The Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking” (2007)*

*This Call to Action is a reminder that underage drinking has serious social costs and often tragic personal consequences. More than that, this Call to Action demonstrates that each of us has the opportunity to prevent underage drinking. It also offers a way forward through the collaborative effort of societal change involving parents, police officers, colleges, and communities. This type of societal change requires the discipline and determination to take small steps toward reducing underage drinking each day. This report was issued to focus national attention on this enduring problem and on new, disturbing research which indicates that the developing adolescent brain may be particularly susceptible to long-term negative consequences from alcohol use. The latest research also offers hopeful new possibilities for prevention and intervention by furthering our understanding of underage alcohol use as a developmental phenomenon- as a behavior directly related to maturational processes in adolescence. Emerging research also makes it clear that an adolescent’s decision to use alcohol is influenced by multiple factors. The factors include normal, maturational changes that all adolescents experience: genetic, psychological, and social factors specific to each adolescent, and the various social and cultural environments that surround adolescents, including their families, schools, and communities. A significant point of the Call to Action is that underage alcohol use is not inevitable and schools, parents, and other adults are not powerless to stop it. The latest research demonstrates a compelling need to address alcohol use early, continuously, and in the context of human development using a systematic approach that spans childhood through adolescence into adulthood. Such an approach is described in this report.*

*“The Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking: A Guide to Action for Educators” (2007)*

*This Guide to Action for Educators highlights key issues related to underage drinking found in the complete Call to Action to Prevent and Reduce Underage Drinking. It was developed to provide educators and other school personnel a guide to what they can do to take action against underage drinking and why. The guide states that although underage drinking is widespread, underage alcohol use is not inevitable. Schools and teachers have a significant impact on an adolescent’s life. The climate and cohesiveness of a school can play an important role in the development of an adolescent’s self-identity. Schools and teachers can help change attitudes about teen drinking and help replace environments that enable underage alcohol use with environments that discourage it.*

## **National Institute on Alcohol Abuse and Alcoholism**

“Science, Kids, and Alcohol” (2000)

*This report is a brief of research funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). The main findings of the majority of the studies are as follows:*

*\*Over the past 100-200 years, the age at which puberty begins has been declining, especially among girls. The drives, impulses, and emotions as well as changes in motivation that accompany puberty arise before self-control and judgment are fully developed. The complex neurobehavioral changes that occur in adolescence interact with the social context of adolescence in ways that may further increase risk.*

*\*Information stored in memory prepares people for the circumstances they encounter. This type of information is called expectancies. Individuals with strong positive alcohol expectancies drink more and are at greater risk for problem drinking patterns. Children begin to acquire alcohol expectancies at a very young age.*

*\*Rather than focusing on the demand for alcohol by young people, Communities Mobilizing for Change on Alcohol (CMCA) communities intervened in the supply of alcohol. CMCA communities had (1) less drinking by 18 to 20 year olds, (2) reduced sale of alcohol to minors, (3) reduced provision of alcohol to younger adolescents by older adolescents, and (4) more identification checking by alcohol merchants, who also were less likely to sell to minors. These findings suggest the potential for other typical communities to achieve similar results.*

*\*The average 6<sup>th</sup> grader believes that half of his or her peers drink alcohol, well above the actual figure of 20 percent. Students who overestimate the proportion of drinkers are more likely to drink compared with those students who have correct or low estimates of drinking levels. The pressure to drink is literally inside the young person’s head, stemming from the pressure to conform to normative beliefs about alcohol use.*

*\*Age at first use of alcohol is a powerful predictor of lifetime alcohol abuse and dependence. Age at first use is associated with a variety of other health problems including early and unwanted pregnancy, depression, and suicide.*

*\*It is widely suggested that close parental supervision may reduce adolescent alcohol use. Phone interviews with parent-teen pairs found a relationship between parental monitoring practices and their teens’ drinking behaviors. The study strongly suggests that improving parental monitoring through parent education, support groups, and communication networks can reduce teen drinking.*

“Trends in Underage Drinking in the United States, 1991-2005” (2007)

*This report was prepared by the Alcohol Epidemiologic Data System (AEDS), National Institute on Alcohol Abuse and Alcoholism (NIAAA). It presents data on underage drinking for 1991 to 2005. This is the second of a series of reports to be published every two years on underage drinking and related attitudes and risk behaviors. Data for this series are compiled from three separate nationally representative surveys: the National Survey on Drug Use and Health (NSDUH), the Monitoring the Future (MTF) survey, and the Youth Risk Behavior Survey (YRBS). Highlights from the report include:*

*\*Throughout the decade, rates of underage drinking remained highest among non-Hispanic whites, followed by Hispanics and non-Hispanic blacks, Rates were also higher among youth not enrolled in school as compared with those enrolled in school (NSDUH), although rates among college students remained higher than among non-college students.*

*\*The mean age of initiation of drinking alcohol has increased slightly from 13.8 years in 1991 to 14.2 years in 2005 (NSDUH). In addition, there is a gradual decline over the decade in the proportion of youth reporting initiating drinking at age 12 years or younger, although this trend may be leveling off, particularly among females.*

*\*The trends for alcohol-related attitudes show a gradual shift in youth attitudes towards underage drinking, with a decrease between 1991 and 2005 in the percentage of youth strongly disapproving of others regularly consuming alcohol or binge drinking, and a decrease in the percentage of those who consider regular or binge drinking a great risk (MTF). Recent data indicate these trends may be reversing.*

“Alcohol Alert: Underage Drinking” (January 2006)

*This report was published by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and provides an overview of why adolescents drink, what are the risks, and how underage drinking can be prevented. As children move from adolescence to young adulthood, they encounter dramatic physical, emotional, and lifestyle changes. Developmental transitions, such as puberty and increasing independence, have been associated with alcohol use. To date, researchers have been unable to identify a single track that predicts the course of alcohol use for all or even most young people. Instead, findings provide strong evidence for wide developmental variation in drinking patterns. Intervention approaches typically fall into two distinct categories: (1) environmental level interventions, which seek to reduce opportunities for underage drinking, increase penalties for violating minimum legal drinking age (MLDA) and other alcohol use laws, and reduce community tolerance for alcohol use by youth; and (2) individual level interventions, which seek to change knowledge, expectancies, attitudes, intentions, motivation, and skills so that youth are better able to resist the pro-drinking influences and opportunities that surround them. Today, alcohol is widely available and aggressively promoted throughout society. Alcohol use continues to be regarded, by many people, as a normal part of growing up. Yet underage drinking is dangerous, not only for the drinker, but also for society. People who begin drinking early in life run the risk of developing serious alcohol problems. Identifying adolescents at greatest risk can help stop problems before they develop.*

### **National Highway Traffic Safety Administration**

“An Impact Evaluation of Underage Drinking Prevention Projects” (2003)

*This report summarizes the results of a highway safety impact evaluation of four underage drinking prevention programs in the United States. The four programs that are evaluated here began in the mid-1990s. This report briefly describes them and estimates their impact on surrogates of alcohol related crashes. Three of the programs emphasized public information*

*and education (PI&E) strategies, with one of the programs also including an active legislative component. None of these three programs was found to have an impact on surrogates of alcohol-related crashes involving underage drivers. However, it is possible that the available data was not sufficient for detecting such an impact in some of the jurisdictions studied, especially in light of the small number of youth involved traffic crashes that occurred in some jurisdictions. Also, it is possible that other positive effects not reflected in alcohol related crashes may have occurred. The fourth program emphasized enforcement of laws prohibiting sales of alcoholic beverages to underage youth, supported by youth peer programs. This program had a possible impact that increased with time starting about a year after program initiation. The number of nighttime crashes involving an underage driver gradually decreased in the program's jurisdiction with the decrease amounting to about 20 crashes per month at three years after program initiation. These findings suggest that, to have an alcohol-crash impact on the target group in the short range future, PI&E alone is insufficient and that initiatives aimed at reducing the availability of alcoholic beverages, and/or at deterring driving after drinking, may be necessary. Similar findings with respect to drinking-drivers in general have been reported elsewhere.*

### ***The Underage Drinking Enforcement Training Center (OJJDP)***

*"Youth Drinking Rates and Problems: A Comparison of European Countries and the United States" (2005)*

*This report addresses the question of whether young people in Europe actually drink more responsibly than those in the United States. Data for this paper comes from the 2003 European School Survey Project on Alcohol and Other Drugs (ESPAD) and the 2003 United States Monitoring the Future Survey (MTF). Among Americans there is a commonly held perception that American young people drink more frequently and experience more alcohol related problems than do their European counterparts. This perception, in turn, is often utilized as argument for various changes in U.S. alcohol policies and prevention initiatives, including elimination of minimum drinking age laws and the development of programs that teach "responsible" drinking to young people. New research demonstrates that European young people do not drink less and do not experience fewer problems than their American counterparts. In comparison with young people in the United States:*

*\*a greater percentage of young people from nearly all European countries report drinking in the past 30 days.*

*\*for a majority of these European countries, a greater percentage of young people report having five or more drinks in a row.*

*\*a great majority of the European countries have higher intoxication rates among young people than the United States and less than a quarter had lower rates or equivalent rates to the United States.*

“Drinking in America: Myths, Realities, and Prevention Policy” (2002)

*This report provides a more realistic picture of who drinks, how much, and how often. It compares the drinking patterns of adults to those of people under age 21. It then analyzes the implications of these drinking patterns for alcohol policy. Perceptions and misperceptions about alcohol affect our attitudes toward alcohol and our policies regarding the sale to and consumption of alcohol by youth as well as adults. The report concludes that most Americans either abstain from alcohol or drink very infrequently- less than once a week. Our public policies and social norms, however, do not reflect this fact and make alcohol readily accessible at low prices. Alcohol sales are dominated by a relatively small minority of the population who drink heavily. Policies and norms that promote alcohol availability support and encourage these problematic drinking behaviors. Most Americans consume very little alcohol, so it is not surprising that large majorities of the population support stricter alcohol policies designed to reduce drinking problems, especially among young people. These policy reforms have been shown to be effective in reducing alcohol consumption and problems.*

### **Department for Children, Schools and Families**

“Use of Alcohol among Children and Young People (UK)” (2008)

*This report focuses on the findings of a qualitative research project into the use of alcohol amongst children and young people. The overall objective of the research was to provide insight into the influences and motivations for alcohol consumption in young people and to understand the barriers that exist to alcohol avoidance in order to inform the design of interventions aimed at young people and parents. The research included a mixed methodology of individual and paired interviews, small discussion groups, large workshops, and observations. The sample included 380+ respondents and covered a range of regions and socio-economic groups. Findings showed that:*

*\*Overall, there was a high level of consistency across audiences in terms of current attitudes toward the perceptions of the “issue” of underage drinking. This consistency reflects a high degree of stasis and personal dissociation from the problem.*

*\*Some children and young people are interested in further information and assistance in learning to manage alcohol effectively or stay away from drinking. However, for most, the high level of dissociation from a problem alongside the high level of enjoyment from drinking means communication and information about underage drinking is of low/very low interest. There is certainly a role for communications and information aimed at children and young people but impact is likely to be limited without work elsewhere.*

*\*Parents and carers are a critical audience. While there is wide variation in parenting approach/style and levels of own drinking; it was clear from this study that many parents and carers are key to facilitating and even overtly encouraging, underage drinking. There is similarly, however, low interest among parents and carers currently. They are not connected to the nature of their own role within the issue and lack information about the negative impact of alcohol on children and young people.*

*\*While children and young people and parents and carers clearly have their own communication and information needs, the issue of stasis is so entrenched that an additional, broader communications strand is also required. Specifically, there is a need to frame where alcohol sits in today's society and a new requirement to reconsider how it is managed.*

*\*To be taken seriously, this messaging will need to come from those with health authority/expertise, but must also demonstrate some level of sponsorship and commitment by government.*





## Existing U.S. National Youth Surveys

### ***Monitoring the Future: A Continuing Study of American Youth***

Description: Begun in 1975, a nationally representative cross-sectional annual survey of 12th-grade students. In 1991, this survey began to also sample 8th- and 10th-grade students. While the primary focuses of this survey is on drug usage and demographic characteristics, it also contains questions on various social attitudes, lifestyle orientations, and other youth behaviors. ICPSR study number is 2752.

### **National Education Longitudinal Study (NELS)**

*Description:* A four-wave, nationally representative longitudinal study of youth, focusing mainly on educational achievement and related issues, but also containing detailed demographic information. The data were first collected in 1988, when the youth were 8th-graders. Then, follow-up interviews were conducted in 1990 (10th graders), in 1992 (most were in the second semester of their senior year), and in 1994 (when the majority of the sample had completed high school). Data from the fourth follow-up interview in 2000 will permit researchers to examine what this cohort had accomplished 12 years after the eighth-grade baseline survey. The 2000 data were collected at a key stage of life transitions for the eighth-grade class of 1988-most had been out of high school for nearly 8 years. Many had already completed postsecondary education, started or even changed careers, and started to form families. The public use fourth follow-up data is now available.

### **National Household Education Survey (NHES): Youth Civic Involvement Component**

*Description:* The National Household Education Surveys Program (NHES) provides descriptive data on the educational activities of the U.S. population and offers researchers, educators, and policymakers a variety of statistics on the condition of education in the United States. The NHES surveys cover learning at all ages, from early childhood to school age through adulthood. The most recent data collection in 2005 consisted of three surveys: Adult Education, Early Childhood Program Participation, and After-School Programs and Activities.

### **National Longitudinal Study of Adolescent Health ("Add Health")**

*Description:* A three-wave, nationally representative longitudinal study of adolescents in grades 7-12, focusing on health-related behaviors. Data were gathered from adolescents themselves, from their parents, siblings, friends, romantic partners, fellow students, and from school administrators. A clustered sampling design was used. The first wave of in-home interviews was conducted between April and December 1995, the second wave approximately one year later, and the third wave in 2002.

### **National Longitudinal Survey of Youth, 1979 (NLSY79), 1997 (NLSY97)**

*Description:* Nationally representative sample of 12,686 youth (14-22 years old) first interviewed in 1979, who since that time have continued to be interviewed annually. A major focus of the NLSY79 is labor force participation and experience. This survey also contains questions on health, sexual activity, alcohol and substance abuse, educational attainment, and other demographic characteristics.

### **National Survey of Adolescents in the United States**

*Description:* Nationally representative sample of 3,161 youth (12 to 17 years old) who were interviewed over the telephone in 1995. In addition to this nationally representative sample, there was an oversample of 862 youth living in central-city areas. This survey contains information on victimization experiences, the mental health effect of victimization, substance usage and abuse, delinquent behaviors, and demographic characteristics. ICPSR study number 2833.

### **National Survey of America's Families, 1997 (NSAF)**

*Description:* Conducted in 1997, the NSAF examines the social, health, and economic characteristics of children (0 to 17 years old), adults (18 to 64 years old), and their families. This survey is a nationally representative sample of over 44,000 households, yielding information on more than 100,000 individuals. The NSAF oversampled Alabama, California, Colorado, Florida, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Texas, Washington, and Wisconsin, to produce reliable estimates at the state level.

### **National Survey of America's Families, 1999 (NSAF)**

*Description:* Conducted in 1999, the NSAF examines the social, health, and economic characteristics of children (0 to 17 years old), adults (18 to 64 years old), and their families. This survey is a nationally representative sample of over 46,000 households, yielding information on more than 100,000 individuals. The NSAF oversampled Alabama, California, Colorado, Florida, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Texas, Washington, and Wisconsin, to produce reliable estimates at the state level.

### **National Survey of Children (NSC)**

*Description:* A nationally representative panel study of children, who were first personally interviewed in 1976 when they were 7 to 11 years old, and then again in 1981 (11 to 16 years old) and 1987 (17 to 22 years old). The NSC contains information on well-being, behavior, family life, experiences of family disruption, physical health, mental health, and neighborhood conditions. ICPSR study number 8670.

### **National Survey of Families and Households (NSFH)**

*Description:* In wave I (1987-1988), the NSFH interviewed one adult (the primary respondent) and one spouse or cohabitating partner from 13,017 sampled households (ICPSR study number 6041). Youth were not interviewed until the second wave of the NSFH (parent and spouse of cohabitating partner were again interviewed). >From 1992 through 1994, the NSFH conducted a telephone interview with youth from households in wave I, who were now ages 10-17 and 18-23. This wave II youth component of the NSFH includes information on friends, psychological well-being, various social attitudes and behaviors, family structure, and relationship with parents and grandparents. ICPSR study number for wave II is 6906.

### **National Youth Survey**

*Description:* A seven-wave nationally representative sample of youth, begun in 1976 (ICPSR study number 8375). The second wave of this survey was conducted in 1977 (ICPSR study number 8424), the third in 1978 (ICPSR 8506), the fourth in 1979 (ICPSR 8917), the fifth in 1980 (ICPSR study number 9112), the sixth in 1983 (ICPSR study number 9948), and the seventh in 1987 (ICPSR study number 6542). This survey includes information on demographic characteristics, disruptive events in the home, neighborhood problems, family and peer contexts, and attitudes toward deviance, parental discipline, community involvement, and drug use.

### **Survey of Parents and Children**

*Description:* Conducted in 1990, this is a nationally representative survey of 1,738 parents living with their children, containing two oversamples, one for parents with children over the age of 10, and another for Hispanic and African-American children. This survey interviewed 928 youth between the ages of 10 and 17. Youth were asked questions about well-being, social attitudes, neighborhood conditions, school and after-school activities, summer activities, and demographic characteristics. Parents were asked a similar set of questions.

### **Teenage Attitudes and Practices Survey, 1989 (TAPS I)**

*Description:* This nationally representative survey of 12,097 youth (ages 12-18) was drawn from the 1988 and 1989 National Health Interview Survey (NHIS). It contains questions on tobacco use and attitudes, driving safety, fitness, alcohol and drug usage, school, diet, accidents, physical fights, sleeping patterns, general well-being, aspirations, anxiety and nervousness, and demographic characteristics. ICPSR study number 9786.

### **Teenage Attitudes and Practices Survey, 1993 (TAPS II)**

*Description:* A sample of 9,135 youth (ages 15-22) drawn from TAPS I, and 5,590 additional youth (ages 10-15) was drawn from the 1991 and 1992 National Health Interview Survey (NHIS). TAPS II included an oversampled of African-American youth. Like TAPS I, this survey contains questions on tobacco use and attitudes, driving safety, fitness, alcohol and drug usage, school, diet, accidents, physical fights, sleeping patterns, general well-being, aspirations, anxiety and nervousness, and demographic characteristics. ICPSR study number is 6375.

### **Youth-Parent Socialization Panel Study**

*Description:* Three-wave nationally representative panel study of high school seniors, first interviewed 1965. Second and third waves of this study were conducted in 1973 and 1982. The survey concentrates on the effect of life-course events and historical trends of the respondents' behaviors and attitudes. Each wave has a distinctive focus: 1965-high school experiences, 1973-protest era, and 1982-maturing process and other familial and parental issues and experiences. The survey also includes information on political participation, opinions on public issues, civic orientations, and stability in other attitudes and behaviors over time. Parents of the respondents were also interviewed in 1965, 1973, and 1982. ICPSR study number is 9553.

### **Survey on the Beliefs and Moral Values of America's Children**

*Description:* A 1989 survey of 4,000 4th-12th grade students, with an overample of 1,000 4th-6th grade students, drawn from a national list of 110,000 schools maintained by Scholastic, Inc. This survey also oversampled students in parochial and other private school. Includes many religious and non-religious social attitudes and behaviors, especially moral commitments and practices. This survey does not, however, contain a number of standard religion questions.

### **Toward Shaping the Agenda: A National Survey of Catholic Religious Education, Survey of Children.**

*Description:* A 1993 survey of three different youth age groups (ages 10-11, 12-14, and 15-18) selected from Catholic parishes. Includes many questions on parish context, activities, and effectiveness of these activities, plus other questions on religion. All respondents were Catholics. This survey few questions not about religion.

### **Young Adolescent and Their Parents: A National Study, 1984-Youth Component**

*Description:* A survey of 8,000 5th-9th graders drawn from a random sample of the 13 youth-sponsoring agencies' (African Methodist Episcopal, American Lutheran Church, Baptist General Conference, Church of God-General Conference, Evangelical Covenant Church, 4-H Extension, Lutheran Church-Missouri Synod, National Association of Homes for Children, National Catholic Educational Association, Presbyterian Church [U.S.A], Southern Baptist Convention, United Church of Christ, and United Methodist Church) affiliated units (churches, schools, clubs, or residential care facilities). Includes many questions on religion and non-religious behaviors and attitudes. Data are not truly national in scope or representation. Survey was also administered to youths' parents.

### **YRBSS: Youth Risk Behavior Surveillance System**

*Description:* The Youth Risk Behavior Surveillance System (YRBSS) monitors priority health-risk behaviors and the prevalence of obesity and asthma among youth and young adults. The YRBSS includes a national school-based survey conducted by the Centers for Disease Control and Prevention (CDC) and state, territorial, tribal, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments.

### **PRIDE Student Behavior & Perceptions**

*Description:* Pride Surveys was created in 1982 by professors at Georgia State University in Atlanta and Western Kentucky University in Bowling Green. Their purpose was to help local schools measure student alcohol, tobacco and other drug use. PRIDE Surveys now measure behavior on many crucial issues that can affect learning: family, discipline, safety, activities, gangs, and more. With today's emphasis on evaluation and accountability, PRIDE Surveys have assisted single schools, school districts, state and federal agencies, and other organizations such as community coalitions. In 1998 a federal law designated PRIDE Surveys as an official measurement of adolescent drug use in America. More than 10 million students, parents, and faculty members have responded to PRIDE Surveys. We have conducted more than 32,000 school level surveys. PRIDE Surveys is independently owned by International Survey Associates.