

# Under the Influence?

## The Impact of Alcohol Advertising on Youth

### AN ANNOTATED BIBLIOGRAPHY

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## Introduction

This report began by focusing on Canadian law, young people's drinking and consequences, and how alcohol advertising influences their decisions about drinking. As the study progressed, however, we learned that there is little *current* research on the effects of alcohol advertising on youth in Canada and few complete and accurate estimates available of how much the alcohol industry spends in Canadian media. Special studies are needed to gather this information. With this realization, this paper drew significantly on advertising research from around the world.

The references for this report, and those summarized in this annotated bibliography, were gathered from three sources. Rutgers University Library completed a literature search of Medline, an electronic reference service to identify the most recent articles. Key references on the effects of alcohol advertising on young people were selected from this list and then sources from those references were gathered, and so on. The Internet was another helpful resource. For example, the Advertising Centre at the Trauma Foundation at San Francisco General Hospital summarizes U.S. advertising research and Statistics Canada has data on Canadian media activities. The summaries are listed in alphabetical order.

Addiction Research Foundation, 1995. The Ontario Experience of Alcohol and Tobacco: New Focus on Accessibility, Violence and Mandatory Treatment. Anglin, L. (Ed.), Toronto: ARF Internal Document #122.

Key words: public opinion, policy, taxes, outlets, hours of service, legal drinking age, drinking problems

The 1995 Ontario Alcohol and Other Drug Opinion Survey asked questions about drinking, alcohol-related policy issues like taxation, hours of service, and legal drinking age, drinking problems, smoking, tobacco policy and types of outlets. Results showed that three quarters of the Ontario public thought alcohol taxes should stay the same or increase and 90% thought the hours of sale in beer and liquor stores should stay the same or decrease. Although half of the respondents (55%) thought the legal drinking age should stay the same, 41% wanted it raised. The majority of women (84%) and men (62%) did not want alcoholic beverages sold in corner stores and opinion was divided about selling alcohol at sporting events (52% for and 48% against). Respondents who drank more and more often wanted less government control over alcohol, including broadcast advertising by the alcohol industry.

Adlaf, E.M., and Paglia, A. and Ivis, F.J., 1999. Drug Use Among Ontario Students: Findings From the OSDUS. Toronto: Centre for Addiction and Mental Health Research Document Series No. 5.

Key words: student, drinking, high risk, drugs, alcohol, starting to drink

The Ontario Student Drug Use Survey is the longest ongoing study of adolescent drug use in Canada. The purpose of the study is to monitor the use of alcohol and other drugs among students in Grades 7 to 13 every two years. Between 1997 and 1999, use of 8 of 20 drugs increased significantly.

In 1999, 67.5% of all students drank alcohol at least once in the past year. The level of use peaked by grade 11, ranging from 39.2% of all students in grade 7, to 82% in grade 11, and 83% in grade 13. The proportion of drinkers having five or more drinks on a single occasion during the past four weeks increased from 30.5% in 1993 to 42.4% in 1999. One in five students started to use alcohol in the past 12 months. About 16% of students reported driving within an hour of having two or more drinks, and 6% said they had two or more alcohol problems. About 40% reported impaired mental health and 5% (46,200 of Ontario students) had both alcohol and mental health problems.

Aitken, P.P., 1989. Television Alcohol Commercials and Under-Age Drinking. *International Journal of Advertising* (8): 133-150.

Key words: alcohol, advertising, youth, Scotland, children, adults

This study of 10-16 year olds from Scotland indicates that younger people who are beginning to experiment with alcohol may be more strongly influenced by alcohol advertisements than older drinkers. Discussion groups and individual interviews with 150 children showed the majority liked alcohol ads. Brand recognition increases with age. Teens between 14 and 16 years old interpret these ads in the same way as adults and do not focus on what is shown in the ads, but the wider context of images to which the ads allude. While most ads are targeted for young adults, the imagery is attractive to children.

Children who drink know the brands and recognize the imagery used more than others. "Attention" is the key. The authors suggest that since advertising builds on people's needs, industry claims that ads do not promote consumption are questionable. The study focuses the debate on ads to specific market niches by suggesting that advertising is key to capturing the dynamic market of youth who are beginning to experiment with alcohol.

Atkin, C.K., 1990. Effects of Televised Alcohol Messages on Teenage Drinking Patterns. *Journal of Adolescent Health Care* 11 (1): 10-24.

Key words: alcohol, advertising, youth, attitudes, beer, wine, consumption, problems and drunk driving

This paper summarizes ideas about how portrayals of drinking on television effect adolescent audiences, focusing on the influence of beer and wine ads and entertainment depictions of drinking behaviour. A crucial review of survey research evidence indicates that alcohol commercials contribute to a modest increase in overall consumption by teenagers and may have a slight impact on alcohol misuse and drunk driving. No studies yet measure the effects of entertainment programming on adolescents, but content analysis suggests the potential for

increased pro-drinking attitudes and behaviours. Policy implications for addressing the negative effects of televised drinking are discussed, and priorities for future research are identified.

Atkin, C.K. and Block, M., 1984. The Effects of Alcohol Advertising. *Advances in Consumer Research*, vol. 11. Thomas C. Kinnear (Ed.) Provo UT: Association for Consumer Research: 699-693.

Key words: advertising, exposure, youth, adults, heavy drinking

This study examined links among exposure to alcohol advertising and youth drinking, drinking by adults and heavy drinking. A U.S. national survey showed that 31% of respondents between 12 and 18 who had “high exposure” to alcohol advertising said they tried 11 brands listed in the survey, compared to 15% who had low exposure. Half (52%) of these respondents said they tried each of six beer brands, compared to 37% of low exposure respondents.

Atkin, C.K., Neuendorf, K. and McDermot, S., 1983. The Role of Alcohol Advertising in Excessive and Hazardous Drinking. *Journal of Drug Education* 13 (4): 313-325.

Key words: advertising, heavy drinking, hazardous activities, attitudes, brand awareness

The study examined the impact of advertising on heavy drinking beyond normal levels and whether or not advertising is responsible for drinking and driving and other hazardous activities. It was hypothesized that occasional messages may directly influence audience attitudes, making the activities appear safer and more acceptable to perform while drinking. General alcohol advertising stimulates more drinking, more often to increase the chance that drinking occurs during a dangerous activity. A sample of 1,227 respondents between 12 and 22 years old were surveyed. Brand awareness, alcohol knowledge, images of drinkers, brand preferences, attitude toward drinking and personal patterns of drinking were examined. Advertising may lead to certain forms of problem drinking in the 12 to 22 age range. There is a moderate relationship between the day-to-day exposure to beer, wine, and liquor ads and both excessive alcohol consumption and drinking in hazardous contexts such as automobile driving.

This study shows that exposure to alcohol advertising is related to heavy drinking, problem drinking and hazardous drinking. Much of the influence of advertising works through everyday drinking behaviour, such that ads stimulate consumption and greater consumption leads to heavy drinking and to drinking in hazardous situations. Advertising may have an impact beyond drinking alone, perhaps by producing a more accepting attitude toward heavy or hazardous consumption. Furthermore, a reverse flow of influence may operate as heavy or hazardous drinkers look for advertisements to reinforce their personal practices.

The authors conclude that mass media advertising for alcohol plays a significant role in shaping young people’s attitudes and behaviours regarding excessive or hazardous drinking. Research is needed using more sophisticated measures to examine the undesirable influences of alcohol ads and a thorough discussion of controversial issues about disseminating advertising messages to young audiences. The impact of repeated exposure to the attractive pro-alcohol advertising messages may reduce the effectiveness of campaigns to discourage heavy and hazardous drinking.

Brewers Association of Canada, 1998. Annual Statistical Bulletin. Ottawa, Ontario.

Key words: per capita consumption, beer, wine, spirits, taxes, export, sales

Per capita consumption of total beer sales in Canada decreased slightly to 64.76 litres per person with Quebec, Newfoundland and Alberta being the largest beer drinkers in Canada. Consumption of spirits increased by 0.5% and wine increased by 3.9% in 1997 over 1996. Canadian export sales decreased by 2.1% from 1996 and ranks as the sixth largest exporter of beer on an international basis. Taxes currently make up 52% of the average Canadian retail price of a bottle of beer.

Casswell, S. and Zhang, J.F., 1998. Impact of Liking for Advertising and Brand Allegiance on Drinking and Alcohol-Related Aggression: A Longitudinal Study. *Addiction* 93 (8): 1209-17.

Key words: alcohol advertising, brand preference, aggressive behaviour, New Zealand

This study examined the effect of televised alcohol advertising and allegiance to specific brands of beer on subsequent beer consumption and self-reports of aggressive behaviour linked with drinking. Structural equation modeling was used to assess a birth cohort at ages 18 and 21 years every few years, in Dunedin, New Zealand. Information was gathered from 630 beer drinking participants. The model found a positive impact of liking alcohol ads and brand allegiance at age 18 on the volume of beer consumed at age 21 and self-reports of alcohol-related aggressive behaviour. The model was a good fit to the data from the longitudinal study. This measurable impact of alcohol advertising occurred when the aggregate consumption of alcohol was declining in New Zealand. While this effect was not large enough to stop the fall, it does indicate a measurable, specific impact of broadcast alcohol advertising on alcohol consumption and related behaviour, which is relevant to public health policy.

Centre for Media Education, 1998. Alcohol and Tobacco Advertising Targeted at Youth on the Internet: Alcohol Sites are Still Going After Young Consumers.

([www.tap.epn.org.cme/981218/alctobpr.html](http://www.tap.epn.org.cme/981218/alctobpr.html))

Key words: internet, advertising, tobacco, alcohol, beer, spirits

Sophisticated advertising techniques are being used to market alcohol and cigarette products to youth online. Alcohol companies are taking full advantage of the increasing use of the Internet as marketing territory to attract young consumers. A U.S. survey by the Centre for Media Education (CME) found that 82% of the 28 beer sites made some appeal to youth. Similarly, out the 29 spirits sites, 72% made some appeal to young consumers.

Centre for Science in the Public Interest, 1996. Adolescent Responses to Televised Beer Advertisements: Children of Alcoholics and others. Centre for Science in the Public Interest.

Key words: advertising expenditures, youth, children of alcoholics, TV commercials

American Brewers spend hundreds of millions of dollars advertising their products on TV. Beer ads often feature youth-oriented themes, and many now use animated animals that appeal to young people. No previous research has attempted to detect the effects of beer

advertising on children of alcoholics (COAs), a population at particularly high risk of alcohol dependence. This study examined the responses of adolescent children of alcoholics, and other adolescents, to TV beer commercials.

COAs were more likely than other respondents to perceive the actors in the ads as being involved in heavy drinking. They also felt confused about the images, and have embarrassed, sad and angry feelings after watching the ads. They anticipate both positive and negative consequences of drinking. Although the adolescents recognized that actors in the ads were older than the legal drinking age, they believed that beer companies target their advertising towards teenagers; younger adolescents were more likely to estimate that characters in the ads were younger than 21 years of age.

Forty-five percent of the adolescents thought that characters in the ads drank beer at binge-levels and only 1 in 5 thought that drinkers would stop after one or two drinks. The study also shows that teens pay attention to and are influenced by televised beer advertising. The authors conclude that future research should examine the quantity of alcohol portrayed in ads and its relationship to viewer beliefs about moderate drinking and intentions to drink.

Connolly, G.M., Casswell, S., Zhang, J-F., and Silva, P.A., 1994. Alcohol in the Mass Media and Drinking By Adolescents: A Longitudinal Study. *Addiction* 89: 1255-1263.

Key words: drinking, youth, mass media, exposure, gender differences

This study indicates that the exposure of young New Zealand males to beer commercials influenced how much they drank when they were older. The respondent's recall of alcohol-related mass media, the number of hours spent watching TV, drinking patterns, non-media factors such as peer approval of drinking, living situation and occupation and the difference between male and female drinking were examined. At 15 years of age, beer television advertising was the main advertising recalled. The frequency and quantity of wine and spirits consumed by 18-year old women were positively associated with the hours spent watching television at ages 13 and 15 years. Among men, there was a positive relationship such that those who recalled more alcohol advertisements at age 15 years drank larger quantities of beer at age 18 years. No relationships were found between the commercial advertising and wine and spirits consumption, for either men or women.

Durant, R.H., Rome, E.S., Rich, M., Allread, E., Emans, J. and Woods, E.R., 1997. Tobacco and Alcohol Use Behaviors Portrayed in Music Videos: A Content Analysis. *American Journal of Public Health* 87: 1131-135.

Key words: advertising, exposure, music videos, MTV, tobacco, alcohol, sexuality

Music videos from 5 genres of music were analyzed for portrayals of smoking and drinking and these behaviours combined with sexuality. The study found that a higher percentage (25.7%) of MTV videos than other networks portrayed tobacco use while the percentage of videos showing alcohol use was similar on all networks. In these videos, the lead performer was most often the one smoking or drinking. This study indicates that modest levels of viewing provides high exposure to glamorized depictions of drinking and smoking, and drinking coupled with sexuality.

Fisher, J.C., 1993. Advertising, Alcohol Consumption and Abuse: A Worldwide Survey. Westport, Connecticut, Greenwood Press.

Key words: advertising, mass media, alcohol, economic studies, experimental research, empirical studies

The review looks at the content of the mass media and advertising and evaluates how alcohol use is portrayed on television programs, commercials, newspapers, magazines, etc. Empirical studies examine the relation among advertising, mass media and alcohol use and abuse. Exposure studies examine the frequency and content of alcohol messages to determine how many messages exist in the environment and where they are likely to be encountered. Experimental and quasi-experimental studies investigate the effect of advertising on individuals either by direct manipulation of experimental stimuli thought to affect behaviour or by studying subjects with specific characteristics. Econometric studies examine advertising variability and its relation to rates of consumption and abuse.

Furnham, A., Ingle, H., Gunter, B. and McClelland, A., 1997. A content analysis of alcohol portrayal and drinking in British television soap operas. *Health Education Research, Theory and Practice* 12 (4): 519-529.

Key words: media portrayal of drinking, soap operas, Britain, content analysis, alcohol problems

The study examined the extent to which six soap operas on British television accurately represent the problems associated with heavy drinking and alcoholism. Findings showed that alcohol was referred to visually or verbally in 86.7% of the programs, while in 73.3% the actual or implied consumption of alcohol was shown. Ninety-six drinking scenes, 145 verbal references and 140 scenes with visual references to alcohol were recorded. The authors suggest that close monitoring of how alcohol is depicted by program producers would ensure that a more 'educational' and 'real life' picture of alcohol and its problems would be portrayed. However, guidelines on the acceptable presentation of alcohol on television may not affect the drinking practices of soap opera viewers.

Grube, J.W., Madden, P.A. and Fries, B., 1996. The Effects of Television Alcohol Advertising on Adolescent Drinking. Poster Presented at the Annual Meeting of the Research Society on Alcoholism, Washington, June, 1996.

Key words: advertising effects, exposure, experimental studies, youth, liking, humour, music

The authors examined 4 hypotheses about how advertising affects youth: 1) exposure of advertising increases adolescent drinking; 2) adolescent drinking increases exposure to alcohol advertising; 3) drinking and exposure influence each other; and 4) the relationship results from another factor that influences both drinking and exposure to alcohol advertising. A random sample of 470 students from grade 7 to grade 10 was shown 22 videotaped television advertisements for beer, wine and soft drinks. After viewing each advertisement, they were asked how often they had seen it previously, how much attention they usually paid to it and how much they liked it. Each advertisement was rated on humor, music, romance and sexiness. Subjects were asked how much they drank, as well as how often they drank to intoxication.

The authors conclude that attention to alcohol advertising increases adolescent drinking but drinking does not influence attention to advertising. Attention to alcohol ads depends on how much the young people liked them. Therefore, “liking” ads had a large indirect effect on drinking. The authors suggest that prevention efforts focus on reducing exposure to alcohol ads. Alcohol advertisers should be encouraged to avoid using types of humour and music that appeal to young people.

Grube, J.W. and Wallack, L., 1994. Television beer advertising and drinking knowledge, beliefs and intentions among school children. *American Journal of Public Health* 84 (2): 254-259.

Key words: advertising, youth, beer, children, counter-advertising, California, brands

Awareness of television beer advertising may influence children’s drinking knowledge, beliefs and intentions. The study is based on surveys and face-to-face interviews with 468 fifth and sixth grade students from public schools in Northern California. Researchers measured children’s viewing habits, awareness of beer advertising, knowledge of beer brands and slogans, beliefs about the positive and negative effects of drinking, intentions to drink as an adult and parental and peer drinking. Children who are more aware of television beer advertising know more beer brands and slogans, have attitudes that are more favourable to drinking and have stronger intentions to drink as adults.

The authors suggest that anti-drinking prevention programs should limit alcohol advertising during prime-time hours for children and sports programs. They should work with advertisers to reduce their ads' appeal to young people and mount counter-advertising campaigns that compete with advertising alcohol ads in quality, interest and frequency of exposure. Education programs should help children develop critical skills to resist the persuasive power of these ads.

Hacker, G. and Stewart, L.A., 1995. *Double Dip: The Simultaneous Decline of Advertising and Alcohol Problems in the United States*. Washington DC: Centre for Science in the Public Interest.

Key words: advertising expenditures, alcohol industry, beer, wine, spirits, fatal motor vehicle crashes, youth, US, taxes

Between 1986 and 1993, spending for alcoholic beverages declined by 46.5% (in inflation adjusted dollars). All segments of the alcoholic beverage industry reduced their ad spending: beer ad spending dropped 40%, liquor dropped 41%, wine dropped 54%. Expenditures for wine coolers dropped 88%.

The retreat from media advertising paralleled declines in per capita alcohol consumption (-10%) to a 26 year low in 1992. Although revenues from the sale of alcoholic beverages rose between 1986 and 1993, when adjusted for inflation, sales actually declined 20%. Deaths from alcohol-related vehicle crashes declined from 24,000 in 1986 to 17,500 in 1993. Alcohol involvement in fatal crashes for drivers between 16 and 20 years of age decreased from 36.5% in 1986 to 24% in 1993. For drivers aged 21 to 24 years of age, fatal crashes declined from 47.3% in 1986 to 39.4% in 1993.

Policy recommendations are: (1) eliminate the tax deduction for alcohol advertising expenses; (2) ban all broadcast and print alcohol advertising for young people or heavy drinkers; (3)

require broadcasters to balance alcohol advertising with messages that promote abstinence among young people and oppose heavy drinking among adults.

Hovius, B. and Solomon, R.N., 1996. *Alcohol Advertising: A Legal Primer*. Toronto: The Association to Reduce Alcohol Promotion in Ontario (ARAPO).

Key words: Canada law, Charter of Rights and Freedoms, alcohol advertising

This report summarizes existing law governing Canadian alcohol advertising. It discusses the constitutional basis of law and potential challenges under the Canadian Charter of Rights and Freedoms. The actual federal and provincial alcohol advertising laws are discussed.

Kelly, K.J. and Edwards, R.W., 1998. *Image Advertisements for Alcohol Products: Is Their Appeal Associated with Adolescents' Intention to Consume Alcohol?* *Adolescence* 33 (129): 47-59.

Key words: youth, lifestyle advertising,

Alcohol advertising has been criticized because of the use of image (lifestyle) advertising, and its potential influence of teenage alcohol consumption. This study tried to determine if adolescents who drink, or intend to drink alcohol at some future time, find image ads for alcohol more appealing than product ads. The results show that image ads were preferred to product ads, particularly by younger adolescents. A positive relationship was found between preference for image ads and intent to drink in the future. Policy implications of the findings are discussed.

Kohn, P.M. and Smart, R.G., 1984. *The Impact of Television Advertising on Alcohol Consumption: An Experiment*. *Journal of Studies on Alcohol* 45 (4): 295-301.

Key words: alcohol ads, sports, exposure, drinking, students, youth, males

A videotaped indoor soccer game, interspersed with 0, 4 and 9 beer commercials, was shown to 125 male college students to assess their drinking in response to the advertisements. Refreshments were available to the students during the program; half of the subjects had immediate access to beer and half had delayed access to beer. Exposure to the first few commercials increased consumption, but continued exposure did not. Students who saw the most commercials (9), responded by drinking more beer initially, but then stopped drinking before subjects in other groups. The results suggest that limited exposure to television beer commercials (3 commercials/half hour of viewing) briefly stimulate consumption. However, further exposure does not lead to further consumption. Students who were delayed access to beer yet exposed to 9-beer commercials, drank significantly less at the end of the game, than those in other conditions.

These results do not support strong concern about the effects of televised beer advertising on a young male population, even with ongoing immediate access to beer. Although moderate exposure to advertising increased consumption, the effect was brief. Furthermore, this consumption was counterbalanced by a "saturation effect" in that subjects exposed to 9 commercials and had delayed access to beer, drank less than other groups.

Leiber, L., 1998. Commercial and Character Slogan Recall by Children Aged 9 to 11 Years: Budweiser Frogs versus Bugs Bunny. Centre on Alcohol Advertising. ([www.traumafdn.org/trauma/alcohol/ads/budstudy.html](http://www.traumafdn.org/trauma/alcohol/ads/budstudy.html)).

Key words: advertising, beer, marketing campaigns, television, frogs

This pilot study tested a practical method for assessing the recognition and recall of one of Anheuser-Busch's marketing campaigns among school age children. 221 children ages 9-11 were shown still, color images of characters from TV, including a picture of the frogs from a Budweiser television commercial, and were asked to recall the slogan for the pictured character and to identify the product being advertised. The children had better recall of the Budweiser frogs' slogan (73% said Bud-weis-er) than the slogans for characters such as Tony the Tiger (57 % said "They're Grrreat"), Smokey the Bear (43% said "only you can prevent forest fires" or "don't play with matches") or the Mighty Morphin' Power Rangers (39% said "It's Morphin' Time" or "power on"). Only Bugs Bunny elicited a more accurate response, with 80% saying "Eh, what's up doc?". Eighty-one percent of the children identified beer as the product promoted by the frogs. This study shows that the extent to which beer promotions are seen and noticed by the unintended audience of underage viewers is measurable. These methods could be used to identify ads that reach young people. The company could take steps to reduce children's exposure to its promotions and/or eliminate ads, including the frogs, with special appeal to children.

Lieberman, L.R. and Orlandi, M.A., 1987. Alcohol Advertising and Adolescent Drinking. *Alcohol Health and Research World* (Fall): 30-43.

Key words: advertising, adolescents, children, media exposure, drinking

Social science has trouble connecting exposure to alcohol ads and early drinking because the issues and impact are complex. The laboratory situation is unlike real-life drinking situations because they measure only the effect of ads as an immediate cue to drink on a specific occasion among current drinkers. The effect on adolescents when they form their attitudes to alcohol cannot be assessed in this way. Nor can it be examined through direct observation of a large group of young people who are exposed to advertising. Surveys that gather self-reports of exposure and responses to advertising and drinking are invalid because people underestimate the influence of ads on their drinking behavior.

Another problem is linking the effects of events that are separated in time. The problem of connecting exposure to ads and later drinking in adolescents is due to two ideas. First, children respond to certain messages in a "black or white" fashion, which tend to be good or bad. As children reach their teens, however, their development allows thinking that is more abstract and the ability to consider several points of view at once. Although young children and adolescents have negative attitudes toward alcohol and say they will not drink when they get older, exposure to ads during this age may predispose them to positive attitudes, eventually realized in early drinking.

Madden, P.A. and Grube, J.W., 1994. The Frequency and Nature of Alcohol and Tobacco Advertising in Televised Sports, 1990 through 1992. *American Journal of Public Health* 84 (2): 297-299.

Key Words: advertising, alcohol, tobacco, beer commercials, sports

This study examines the frequency and nature of alcohol and tobacco advertising in a random sample of 166 televised sports events representing 443.7 hours of network programming broadcast from the fall 1990 through the summer 1992. More commercials appear for alcohol products than for any other beverage. Beer commercials predominate and include images at odds with recommendations from the Surgeon General of the U.S. The audience is also exposed to alcohol and tobacco ads through the appearances of stadium signs, other on-site promotions, and verbal or visual product sponsorships. Moderation messages and public service announcements are rare.

Robinson, T.N., Chen, H.L. and Killen, J., 1998. Television and Music Video Exposure and Risk of Adolescent Alcohol Use. *Pediatrics* 102 (5): e54.

Key words: California, survey, youth, media exposure, music videos, alcohol

Researchers followed teens' television viewing patterns and their drinking experiences for 18 months between 1994 and 1996. Questionnaires were sent to over 2,600 9th graders attending 6 California public schools. The study found that watching TV and music videos increased drinking risks among teens and may reflect the high incidence of alcohol use in these broadcasts. In one study of prime-time television programs, alcohol appeared in two thirds of all programs and had an average rate of 8.1 drinking references per hour. An equally high number of drinking references was in music videos.

Watching TV and music videos were associated with starting to drink -- but not with increased drinking once teens already began to drink. In the absence of personal experience, frequent (positive) media portrayals of alcohol use can shape adolescents' beliefs about drinking, encouraging them to take up the behaviour. Attitudes about drinking after the habit starts are shaped by personal experience, rather than by media images. Future anti-drinking efforts should help adolescents resist the positive portrayals of alcohol use in the media.

Saffer, H., 1997. Alcohol Advertising and Motor Vehicle Fatalities. *The Review of Economics and Statistics* 79 (3): 431-442.

Key words: advertising expenditures, motor vehicle fatalities, advertising ban, economic study

The debate over alcohol advertising asks if the effect of alcohol advertising is limited to brand choice or whether it also increases total alcohol consumption. The industry says that alcohol advertising only induces brand switching and has no effect on overall consumption. This paper examines the relationship between alcohol advertising and motor vehicle fatalities. The study examines a market-specific price of advertising to estimate price elasticity of alcohol advertising and focuses on metropolitan areas as the unit of observation. Motor vehicle fatalities are used as the outcome measure. The data include 1,200 observations from 1986 to 1989 for 75 advertising markets in the U.S.

Two policy options are examined. The first extends the voluntary ban on broadcast advertising to include beer and wine. The second policy eliminates the tax deductibility of all alcohol advertising expenses. The regression results show that alcohol advertising has a significant and positive effect on motor vehicle fatalities. While advertising is significant, it is less important than alcohol price as a determinant of motor vehicle fatalities.

A complete ban on broadcast alcohol advertising could save about 5,000 to 10,000 lives per year. If a ban resulted in substitution to other media, the ban would have no effect at all.

The elimination of alcohol advertising as a cost that reduces taxable corporate income would raise the price of advertising by about 54%. This increase in the price of advertising would decrease spending by about 15% and reduce fatalities by about 1,300 per year. Total advertising in the US would be reduced from about \$1 billion per year to about \$850 million per year.

Smart, R.G. and Walsh, G. W., 1995. Do Some Types of Alcoholic Beverages Lead to More Problems for Adolescents? *Journal of Studies on Alcohol* 56: 35-38.

Key words: drinking, students, beer, wine, spirits, delinquent behaviour, heavy drinking

This study identifies groups of high school students who drink beer, wine or spirits exclusively, as well as those who drink multiple beverage types. It examines whether problems are limited to a beverage type or a combination of types and uses data from the 1991 Ontario Student Drug Use Survey. In this study, most students (82%) drink a combination of beer, wine and spirits. However, drinker type is not related to alcohol problems, drinking and driving, tobacco use, cannabis use or drug problems when age, gender and alcohol consumption are taken into account. Only for heavy drinking and delinquency is there a significant association with drinker type. Exclusive beer and spirits drinkers and drinkers of all three beverages are more likely than the other drinker types to have five or more drinks on a single occasion and to engage in delinquent behaviour. Drinkers of beer and spirits and all three beverage types are not only heavier drinkers but probably more rebellious and deviant. It is speculated that their heavier drinking leads directly to delinquent acts such as fighting and theft. Wine, if taken exclusively, appears to be the beverage of moderation.

Sobell, L.C., Sobell, M.B., Riley, D.M., Klajner, F., Leo, G.I., Pavan, D. and Cancilla, A., 1986. Effect of Television Programming and Advertising on Alcohol Consumption in Normal Drinkers. *Journal of Studies on Alcohol* 47 (4): 333-340.

Key words: male, students, advertising, TV, experimental study

The drinking behaviour of 96 male normal drinking college students was assessed after they saw a video tape of a popular prime-time television program with advertisements. Different versions of the videotape were used to evaluate the effects of a television program with and without alcohol scenes with ads for beer, non-alcoholic beverages and food. After viewing the videotape, the subjects were asked to perform a taste rating of light beers, which gave an unobtrusive measure of their alcohol consumption. The results did not support the assumption that drinking scenes in television programs or televised ads for alcoholic beverages stimulate drinking. This finding must be considered in the context of the laboratory setting of the study and may not generalize to real-life television viewing.

Sobell, L.C., Sobell, M.B., Toneatto, T. and Leo, G., 1993. Severely Dependent Alcohol Abusers May be Vulnerable to Alcohol Cues in Television Programs. *Journal of Studies on Alcohol* 54 (1): 85-91.

Key words: alcohol abusers, advertising, beer commercials, counter-argue, relapse, TV

The ability of 96 alcohol abusers to resist the urge to drink heavily was assessed after being shown videotapes of a popular prime time television program with advertisements. Several versions of a videotaped television program -- with and without alcohol scenes with beer, nonalcoholic beverages, food commercials -- were used to evaluate the effects of exposure. Subjects completed several drinking questionnaires. One questionnaire examined their ability to resist the urge to drink heavily. Dependent alcohol abusers could not resist the urge to drink heavily after watching a television program with alcohol scenes. Beer commercials did not have the same influence as drinking situations in TV programs because the cues depicted in television programs are less obvious than those in commercials. When people receive a persuasive message they disagree with, they “counter-argue” against the message in their mind, negating its effects.

Beer commercials may not affect a person’s self-control because messages in advertisements are easy to identify. Counter-arguing may explain why subjects could resist their urges to drink heavily compared with subjects who were shown the programs paired with food commercials. The results suggest that alcohol cues in television programs might increase the likelihood of relapse for severely dependent people. Confidence to resist urges to drink heavily was assessed right after seeing a single program. It is possible that effects that are more powerful might follow repeated exposures to such programs.

Strasburger, V.C., 1993. Children, Adolescents and the Media: Five Crucial Issues. *Adolescent Medicine* 4 (3): 391-415. ([www.cyfc.umn.edu/Media/crissues.html](http://www.cyfc.umn.edu/Media/crissues.html)).

Key words: advertising, effects, susceptible, physician

Television and other media are the single most important modifiable and neglected influences on children and adolescents in the 1990s. For teenagers, peers play a powerful role, but the media also influences them. This report examines how much influence the media has on young people, what children are most susceptible, how valid media research is, ways in which the quality of television be improved and the role of the primary-care physician.

Tandemar Research Inc., 1990. A Report on Young Peoples’ Perceptions of Alcohol Advertising on Television. Research report prepared for the Alcohol and other drugs directorate, Health and Welfare Canada.

Key words: Canada, youth, high risk drinking, minors,

This study examines the impact of alcohol advertising on the adoption of high-risk drinking practices among Canadian young people. About one fifth of young people (22% of legal drinkers and 15% of illegal drinkers) are classified as high-risk drinkers - those who drink 5 or more drinks per drinking occasion. Although most drinkers had responsible views of alcohol, some exhibited a more positive attitude toward the pleasurable and relaxing effects of drinking. Analysis of personal-values data identified two attitudinal groups: “Enjoyers and Lifestyles”. “Enjoyers” found regular alcohol use more acceptable than other groups and mild intoxication appealing. “Lifestyles” felt alcohol enhanced their social relationships and contributed to their personal appeal.

Researchers concluded that alcohol advertising communicates positive messages about alcohol use, especially the social benefits of drinking (having a good time/fun). The way ad characters are viewed leads to the overall perception that alcohol ads associate alcohol use

with having good time/fun with other people. Young people who associate alcohol use with enhanced social status (Lifestyles) are likely to see ad characters as popular.

The findings in this study confirm previous work, which indicated that alcohol commercials are targeted to young adults, 18-25 years of age. The age of ad characters, settings and activities in ads appeal to young people. The present study also showed that perceptions of alcohol advertising did not vary by the age of respondents. Adolescents as well as young adults perceive the ad characters, settings and occasions as relevant to them -- regardless of the intentions of the advertiser.

Unger, J.B., Johnson, C.A. and Rohrbach, L.A., 1995. Recognition and Liking of Tobacco and Alcohol Advertisements Among Adolescents: Relationships with Susceptibility to Substance Use. *Preventive Medicine* 24 (5): 461-466.

Key words: tobacco ads, alcohol ads, adolescents, brand names, liking, recruitment

Exposure to tobacco and alcohol ads has been associated with adolescent substance use. It is not clear, however, whether favourable reactions to ads are an antecedent to or a consequence of substance use. This study examined the relationship between adolescents' susceptibility to substance use and their recognition and liking of tobacco and alcohol ads.

Subjects were divided into three groups of substance users: non-susceptible non-users (have never used and do not intend to do so), susceptible non-users (have not used but have not made a firm commitment not to experiment in the future), and users (have tried the substance). With brand names and identifying information obscured, subjects were asked to identify the brand name and type of product being advertised. Subjects then rated how much they liked the ads. Susceptible non-users liked the tobacco ads significantly more than the non-susceptible non-users and the same as users. Liking alcohol ads increased with alcohol use status. These results suggest that tobacco ads targeted to adult smokers may effectively recruit new adolescent smokers.

Wallack, L., Cassady, D., and Grube, J., 1990. TV Beer Commercials and Children: Exposure, Attention, Beliefs and Expectations about Drinking as an Adult. Study funded by the AAA Foundation for Traffic Safety, Washington, D.C.

Key words: beer commercials, adolescents, brand awareness, slogans, sports programs, gender differences

This study examines the effects of televised beer commercials on 468 11 and 12 year old children. Children's ability to recognize commercials and recall the brands advertised is significantly related to their levels of exposure through weekend viewing and particularly sports programs. Boys are more likely than girls to watch sports programs, pay closer attention and enjoy these programs more than girls, even though they watch just as much TV. The key finding is that expectation to drink as an adult is related to exposure to beer commercials, recognizing commercials, recalling the brands and beliefs about the social and ritual uses of beer. The relationship remains when socio-demographic variables such as parents drinking, gender and age are accounted for. The authors conclude that policy makers should assume that youth see and are influenced by beer commercials.

Slater, M. D., Rouner, D., Murphy, K., Beauvais, F., Van Leuven, J. and Rodrigues, M.D., 1996. Male Adolescents' Reactions to TV Beer Advertisements: The Effects of Sports Content and Programming Context. *Journal of Studies in Alcohol* 57 (4): 425-433.

Key words: beer ads, sports, youth, males, exposure

The ethics of promoting beer during sports or using sports content in beer ads has been questioned, given the interest of underage youth in sports. It is possible that males, especially adolescent males who are still defining their masculine identities, may be more receptive to alcohol messages that include sports content or are broadcast during sports programs. This study examines white male adolescent responses to TV beer ads with and without sports content and to non-beer ads in sports and entertainment programming.

Results suggest that the effects of alcohol ads may be cumulative, over years and thousands of exposures. The incremental impact of exposure to a few ads on behaviour or even on attitudes is unlikely to be great.

The study showed an interaction among age, ad content and program type, which signaled developmental differences in how young men respond to beer commercials. Senior high school males preferred beer ads without sports content during sports programming and with sports content during entertainment programs. The opposite was true for the junior high school male. The idea that sport programming increased interest in drinking did not hold up. Rather sports programs may depend on viewing ads with other males who drink regularly. If priming for the acceptance of drinking occurred, it was more likely with those who were actively involved in sports. The finding that male adolescents are especially responsive to non-beer product ads during sports suggests that brewers who use sports content in their ads, during sport programs, may be spending unnecessary dollars in this area.

Slater, M. D., Rouner, D., Murphy, K., Beauvais, F., Van Leuven, J. and Rodrigues, M.D., 1996. Adolescents' Perceptions of Underage Drinkers in TV Beer Ads. *Journal of Alcohol and Drug Education* 42 (1): 43-56.

Key words: alcohol ads, role modeling, age identification

One dimension of the impact of alcohol advertisements on young people is adolescents' perception of the ages of persons portrayed in alcohol ads. Ads may influence the attitudes and drinking behaviours of young people through role modeling. The physical attractiveness of the actors and actresses hired to portray drinkers depend on the product advertised and the perceived model age. Effective modeling illustrates the behaviour and reinforces it with models who are more socially desirable than the intended audience but who resemble them. One study indicates that the more heavily exposed to advertisements adolescents were, the more they believed real-world drinkers to be attractive, successful and athletic.

Although researchers have not studied how adolescents judge the age of TV characters, a study of models in magazine cigarette advertisements among persons 13 to 55 years of age found that 17% of models were believed to be significantly younger than the 25 years targeted by the cigarette advertising code. Researchers argue that since TV actors and actresses are attractive, young people may judge them as being more like them than they really are.

Perceptions of underage drinkers in ads were positively related to the amount of alcohol use among junior high school students, but not among high school students. This finding suggests that potential role models in ads may influence adolescents when they are making initial

decisions and choices about themselves. Junior high school students who drink more may perceive people in ads to be underage to justify their own behaviour. These results indicate that persons perceived to be underage in beer ads are associated with the drinking patterns of younger, though not older, adolescents. The brewing industry and their advertisers should use older models to avoid confusion among young people.

Solomon, R. 1997. The Law Regarding Alcohol and Drugs in Canada. In: McKenzie, D.M., Williams, R. and Single, E. (Eds.) Canadian Profile. Ottawa: Canadian Centre on Substance Abuse and Addiction Research Foundation.

Key words: Canada, advertising law, provincial jurisdiction, federal jurisdiction, drug law

This report summarizes the division of responsibility for alcohol and drug law in Canada. The federal government has authority over importing and exporting alcohol products, alcohol-related excise taxes and broadcast advertising. Provincial governments control alcohol marketing and advertising.

Wyllie, A., Fang Zhang, J. and Casswell, S., 1998. Responses to televised beer advertisements associated with drinking behaviour of 10-17-year-olds. *Addiction* 93 (3): 361-371.

Key words: New Zealand, youth, advertising, exposure

This study examined the relationship between 10-17 year old New Zealanders' responses to alcohol advertisements and their drinking behaviour and expectations. The study supports the idea that positive responses to beer ads increased the frequency of current drinking and expected future drinking in this age group. There was no evidence that current drinking affected how much the respondent liked beer advertisements. Young people, especially 10-13 year old males who accepted the ads as realistic, felt that alcohol ads encouraged teenagers to drink.

Wyllie, A., Fang Zhang, J. and Casswell, S., 1998. Positive responses to televised beer advertisements associated with drinking and problems reported by 18 to 29 year olds. *Addiction* 93 (5): 749-760.

Key words: advertising, beer, drinking problems, "liking", youth

This study examined the relationship between responses to alcohol advertisements and drinking behaviour and problems. The results support the idea that people who like televised beer commercials drink more when they drink, which adds to the level of problems they experience. The authors indicate that the results are consistent with a growing body of research that suggests that alcohol advertising influences the drinking behaviours of younger people.