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Underage Alcohol Use: An International Challenge

While national drug policy has quite correctly focused heavily on illegal drug use for the last 25 years, the specter of adolescent alcohol use is finally beginning to be recognized as an enormous public health issue. Despite the compelling evidence of massive consequences of underage alcohol use, fringe groups such as the Amethyst Initiative and other misguided individuals push for reductions in the legal drinking age. Those of us with extensive expertise in addiction see such proposed changes as disastrous at best. When such obviously flawed policy initiatives are set forth, one cannot help but speculate as to who gains from and perhaps even profits off of the suffering of young drinkers.

The following papers represent state-of-the-art positions and information on underage drinking. Prominent in this discussion will be the fact that alcohol appears to affect young drinkers differently than adults. By virtue of their lack of brain development, alcohol exposure in adolescents sets them up for long-term medical consequences and greater likelihood of alcoholism.

The development and implementation of appropriate and effective alcohol policy for adolescents is made difficult by the high level of social acceptance of alcohol consumption in general, and underage consumption in particular. Unfortunately, many parents and policy makers consider alcohol use a right of passage or something to be taught to do safely. Evidence suggests that children who are allowed to drink in the home have a higher incidence of binge drinking and problem drinking (1). The issue is further complicated by the insidious impact of alcohol marketing and lobbying directed at young people.

Europe has often been hailed as an example of successful alcohol policy by those advocating relaxed attitudes toward adolescent alcohol. Increasingly, European policy makers are recognizing the problems that alcohol is causing among youth. In Milan for example, 34 percent of eleven year olds have a problem with alcohol, and 22.8 percent of Italian youth age 11-18 have drinking habits that pose a health risk. This has led to the initiation of stricter drinking laws in some Italian cities (2).

The 2007 European School Survey Project on Alcohol and Other Drugs (ESPAD) dealing with the use of drugs among 15-16 year olds in Europe found that an average of 43 percent reported binge drinking episodes of 5 or more drinks in the prior 30 days (3). By comparison, 18.1% of 10th graders and 28.7% of high school seniors in the United States have reported being "drunk" in the previous 30 days (4).

Misguided attitudes advocating for loosening underage alcohol policy reflect relative ignorance of developmental and addiction data. Oddly enough, the same individuals who support or tolerate adolescent alcohol use would never accept systematic toxin exposure or poisoning of adolescents. Such is the net effect of allowing young, fragile, impressionable, developing brains to be exposed to alcohol.

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References

1. Relaxed Attitudes Toward Alcohol And Youth May Increase Risk Of Binge Drinking In College ScienceDaily (June 11, 2009)
2. Vino is no-no as Italian city tries to cork youth drinking problems. Associated Press July 20, 2009
3. Hibell B et al. (2009) The 2007 ESPAD report: substance use among students in 35 European countries. Stockholm: The Swedish Council for Information on Alcohol and Other Drugs (CAN) and the Pompidou Group of the Council of Europe.
4. Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2008). Monitoring the Future national results on adolescent drug use: Overview of key findings, 2007 (NIH Publication No. 08-6418). Bethesda, MD: National Institute on Drug Abuse.

Alcohol Promotion on Facebook

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Abstract

Since its debut five years ago, Facebook has grown exponentially to include colleges and universities, high school and business networks, along with the general public around the globe. In that same time, Facebook also changed its advertising policies and regulations from not offering online advertising to soliciting paid advertisements for products and services including alcohol products. Although the company's policy requires paid advertisements for alcohol to include age restrictions, the policy is not enforced by Facebook, nor does the restriction requirement apply to other sources of alcohol content throughout Facebook. For this article, we explored the prevalence of alcohol-related content found in popular aspects of Facebook profiles. We also identified aspects of Facebook that contain a great deal of alcohol content and are accessible by anyone, regardless of age. We offer recommendations for both Facebook and the alcohol industry to remove paid ads and other types of content promoting alcohol products and dangerous drinking behaviors in order to protect youth and young adults from the harmful effects of alcohol advertising.

Keywords

Facebook, alcohol advertising, social networks

Facebook was launched from a Harvard dorm room in 2004 by its creators, Mark Zuckerberg and his three roommates (1). Since its debut just five years ago, Facebook has expanded to include other colleges and universities, high school networks, and anyone in the world with an email address. Over the years Facebook has changed its advertising policies and practices from not offering online advertising to soliciting paid advertisements for products and services including alcohol. We could find no articles about Facebook and alcohol advertising in the peer-reviewed literature and little documentation of the types or amount of content promoting alcohol and drinking behaviors present on Facebook. This article is an attempt to account for the presence of alcohol in its most popular forms found on Facebook.

Alcohol, Youth, and Advertising

Alcohol is the most widely used drug among youth in the United States (2) and the third leading cause of preventable death (3). In 2001, underage youth consumed at least 16% of all alcohol sold in the United States, accounting for \$18 billion in sales (4). Economic costs of alcohol are estimated to have been \$220 billion in the U.S. in 2005 (5). In 2007, 26% of American youth reported having five or more drinks in a row in the past 30 days (6). In addition to contributing to poor mental health (7), poor education (8), and increased risk of crime (9), alcohol interferes with the structure of a youth's biological learning process and can permanently impair brain development (10). Numerous types of harm such as motor vehicle accidents, suicide, depression, fighting, property damage, sexual violence, and unprotected sex which can lead to pregnancy and sexually transmitted diseases (11) are related to underage drinking.

The alcohol industry aims to normalize and encourage the consumption of alcohol by portraying products and people drinking them in a fun, cool, exciting manner. The alcohol industry exploits youth and young adults through its niche marketing using a variety of methods such as billboards, posters, newspapers, television, and the Internet to make their brands particularly attractive to the underage audience and ultimately create brand loyalty (12). Alcohol advertisements are effective in capturing the attention of youth and usually do not mention any of the risks involved. Greater exposure to alcohol advertising contributes to earlier initiation of drinking for youth who have not started yet, higher drinking levels among underage youth who drink, and positive expectations and attitudes about alcohol that help create an environment promoting underage drinking (13).

Alcohol Advertising on the Internet

Fifty-five alcohol websites had close to 700,000 in-depth visits from underage youth during six months in 2003, which accounted for 13.1% of all in-depth visits to those sites during the measurement period (14). The interactive nature of the Internet has made it possible for alcohol advertising and marketing to seamlessly weave editorial content and advertising messages for alcohol products and blur any supposed boundaries between the two. Despite portals requiring a birthdate showing legal drinking age in order to gain access to beer and spirits websites, a multitude of sports and gambling games, brand-related quizzes, screensavers, and wallpapers are easily available to underage youth via such sites (15).

Recently, alcohol companies have begun to promote their products on social networking sites that are immensely popular among youth. California's Murphy-Goode Winery created a new staff position that will use Twitter and similar social networking websites to advertise the winery's products (16). This summer, Southern Comfort whiskey became the first known company in the alcohol industry to dedicate its entire advertising budget to digital online properties: In addition to websites such as Hulu, Facebook is Southern Comfort's main advertising medium (17).

Alcohol and Facebook

Facebook is the largest social networking site on the Internet (surpassing both MySpace and Twitter), with more than 250 million active users worldwide (18). A third of Facebook users (84 million) are twenty years old or younger (19). Facebook uses its own terminology specific to its social networking platform to describe features that it makes available to individual users, as well as to companies using Facebook as a marketing and advertising medium. We offer brief descriptions of relevant Facebook terminology here.

Facebook Ads: When a company buys ad space on Facebook, it can access information users list in their profiles including their interests, activities, and photos and present users with promotional content that is personally tailored to them. Facebook Ads consist of up to three banner ads that appear on the right-hand side of each page once a user logs into Facebook. Facebook Ads are promoted to companies to "reach your exact audience and connect real customers to your business...[and] create demand for your product with relevant ads" (20).

Companies are invited to advertise both their products as well as other Facebook features related to their product with Ads. Facebook Ads are the only feature that companies pay to use. Companies are also encouraged to use free Facebook features to promote their products.

Facebook Pages: Pages are "a customizable presence for an organization, product, or public personality to join the conversation with Facebook users... By leveraging the real connections between friends on Facebook, a Page lets Fans become brand advocates" (21). Facebook users can become fans of Pages, and Pages can have an unlimited number of fans. Facebook asks creators of new Pages to "certify that you are an official representative of this brand, organization, or person and that you are permitted to create a Facebook Page for that subject," and notes that "Fake Pages and unofficial 'fan pages' are a violation of our Pages Guidelines. If you create an unauthorized Page or violate our Pages Guidelines in any way, your Facebook account may be disabled" (22). Pages may include links to the brand's official website, photos of the products, and a wall where fans can post comments regarding the brand and the company can post messages, video, and Facebook Applications for fans to use.

Facebook Applications: Applications are designed for users to engage in more interactive behavior on Facebook such as taking quizzes, rating movies, and playing games. These applications are usually developed by third-party social media developers or by individual users.

Facebook Events: Events allow individual users and companies to advertise the date, time, location, sponsor(s), purpose, and description of an occasion and invite other Facebook users to attend (and indicate their intent to do so). Many events are advertisements for entertainment functions such as nightclubs, dance parties, concerts, or sporting events sponsored by an alcohol brand or company. Events may be advertised in Ads, Pages, or Groups.

Facebook Groups: Groups can be created by any individual user about almost any topic and are displayed on individual users' profiles once they become a member. Group pages feature a discussion board, a list of all the members, a wall for members to post comments, photos, videos, web links to other related content or Groups, and the opportunity to create, post, and promote events to the Group members. Group size is limited to 5,000 members. Alcohol-related Groups on Facebook are created by individual Facebook users who show a strong affection for a certain alcohol brand, type of drink, or type of drinking activity.

Facebook Policy Regarding Alcohol Content

Facebook's *Advertising Guidelines* require that companies use demographic restrictions (viewer restrictions based on age) for all advertisements for alcoholic beverages (23). These restrictions include targeting alcohol ads to users whose birthdates, contained in their Facebook profile information, indicate that they are of legal drinking age in the U.S., Canada, or the United Kingdom, and twenty-one years or older in other countries where the users are located (24). When a user's age cannot be determined (usually because the user has not entered their birthdate in their profile), the ad cannot be displayed.

The *Advertising Guidelines* also contain restrictions for Pages. All viewer restrictions for alcohol-related Facebook Pages must be set at twenty-one years or older, regardless of the country the user is in or the country the Pages target (25).

Provisions in Facebook's *Alcohol Advertising Guidelines* are similar to the voluntary, self-regulatory codes the alcohol industry trade groups maintain for advertising and marketing alcohol (26, 27). According to Facebook's guidelines:

Ads must be targeted to people 21 years old or older in the US, 19 years old or older in Canada, 18 years old or older in the UK, and 21 years old or older everywhere else. All Facebook Pages viewer restrictions must be set at 21+ regardless of the country they are in or targeted to. In the case where a user's age cannot be determined, the ad cannot be displayed to the user in question (does not apply to applications on Facebook Platform).

Ads cannot include content that might appeal to (or mislead) minors by implying that the consumption of alcoholic beverages is fashionable or the accepted course of behavior for those who are underage.

Ads cannot include or target any person under the legal drinking age in the region the ad appears or be suggestive of the presence of those who are underage. Additionally, ads appearing in applications on Facebook Platform must adhere to the Platform Guidelines Alcohol Content Policy.

Ads cannot portray or promote intoxication.

Ads cannot induce people to consume alcohol in excess, make references to the intoxicating effects of alcohol, depict activities that encourage excessive consumption or that encourage drinking at a rapid rate, or suggest the strength of the alcoholic beverage being advertised.

Ads cannot promote any giveaways as a reward for purchasing the alcoholic product (28).

The *Platform Guidelines Alcohol Content Policy* advises developers who create third-party Facebook Applications that they are "required to use Demographic Restrictions so that Facebook users can view, be presented with, or have access to alcohol-related content only to the extent permitted by local laws in the country from which the Facebook user is accessing the application" (29).

The *Facebook Statement of Rights and Responsibilities* for users and others who interact with Facebook includes a section on safety, with the directive that those who use Facebook will not develop or operate a third party application containing, or advertise or otherwise market, alcohol-related or mature content without appropriate age-based restrictions. In this statement, the "Special Provisions Applicable to Advertisers" also says that Facebook may reject or remove any ad for any reason (30).

What We Did

To examine the various ways that alcohol is promoted on Facebook, we conducted searches and set up two different user profiles. We did not conduct an exhaustive systematic review; rather, we conducted a limited, qualitative examination of the most prevalent alcohol messaging on the Facebook platform. Toward that end, we searched for five Facebook features associated with the ten top-selling beer brands (Bud Light, Budweiser, Coors Light, Miller Lite, Natural Light, Busch Light, Busch, Miller High Life, Keystone Light, and Michelob Ultra) and the ten top-selling spirits brands (Smirnoff, Bacardi, Captain Morgan, Absolut, Jack Daniels, Crown Royal, Jose Cuervo, Grey Goose, Jim Beam, and Jagermeister) (31), as well as alcohol brands popular with youth and young adults, such as Mike's Hard Lemonade and Malibu. We also searched for unbranded terms such as alcohol, binge, and shots. We created two user profiles using fictitious names, birthdates, and personal information. One user profile was over age 21, and the other was under age 21. In order to become a target for alcohol companies utilizing Facebook's Ads, we listed a number of alcohol-related terms such as drinking, partying, nightlife, bars, and shots under "Interests" and "Activities" on both profiles.

What We Found

A great deal of alcohol-related content is contained in the five Facebook features described earlier: Ads, Pages, Applications, Events, and Groups. We examine each of these features below.

Ads

After "alcohol" and "bars" were listed in the users' interests and the users became fans of several alcohol-related Pages, one alcohol-related Ad appeared out of every eight Ads. Alcohol-related Ads promoted both general nightlife activities such as: 1) an ad for Thrillist with the tagline "Let us help you find free booze;" 2) an ad for MexBaltimore which asked the user, "Want to drink FREE? Click here for your chance at winning an open bar party for you and 100 of your closest friends!;" 3) the bar Petaluma Nightlife which listed a number of its "killer drinks;" and 4) specific brand marketing, such as hyperlinks to the Belvedere Vodka Page and the Beck's Beer Page. These ads could be accessed by the under-21 user. Coors Light and Heineken banners were seen in the "News Feed" (a list of recent actions taken by friends highlighted on individual users' home pages), and Ads for Johnnie Walker whisky were displayed on the side of the page for the over-21 user.

Several non-alcohol product Ads made strong references to nightlife, partying, and extreme intoxication. For example, an Ad for the "University of Andy," a fictional university, displayed an image of an attractive, seductively-dressed young woman with the caption, "Love to Party? If so, you'll want to get party tips from UNIVERSITY OF ANDY..." Another banner for a non-alcohol product had the title "Wow, that was some party! But now that term paper's due. Don't sweat plagiarism. Check your paper now before the prof does. Click here." A third banner promoted Rohto Eye Drops, which displayed an eye drop container with the caption, "When the party's over, get the red out and wake up tired eyes with a 'kick'. Do you ROHTO?" These Ads for non-alcohol products using messages about drinking and partying were accessible to all users.

Pages

We found ninety-three Pages with a total of more than 1.1 million fans listed for the top-selling beer brands. The number of Pages per brand ranged from zero (Busch Light and Natural Light) to thirty-one (Budweiser), and the number of fans per brand ranged from 284 (Keystone Light) to 451,675 (Coors Light). A total of 334 Pages and more than 3.2 million fans were listed for the ten top-selling spirits brands. The number of spirits Pages ranged per brand from four (Crown Royal and Grey Goose) to eighty-five (Smirnoff). The total number of fans ranged per brand from 15,659 (Crown Royal) to a very popular 1,076,690 (Jack Daniels).

Fans posted their praise for the respective alcohol products on the wall of the Page. Comments posted on the Captain Morgan Page included: "all i no is the day i turn 21...im so buying a huge bottle of this great liquor..." "It's not a party unless you invite the Captain. Drink or jump ship," and "captain and me are best friends!" (32). On a Page simply titled "Alcohol!," members posted comments such as "Oh Alcohol, I am your Biggest Fan !!!!!" and "ALCOHOL....it's what's for breakfast, lunch, and dinner!!! LOVE THIS STUFF!" (33).

From Pages for twelve popular brands (Smirnoff, Smirnoff Ice, Captain Morgan, Jack Daniels, Bacardi, Bacardi Breezer, Budweiser, Heineken, Coors Light, Absolut, Malibu, and Mike's Hard Lemonade), six Pages were accessed by the under-21 user. The six Pages that did not use demographic restrictions were Captain Morgan, Jack Daniels, Bacardi, Bacardi Breezer, Heineken and Mike's Hard Lemonade. Facebook users of all ages are easily allowed to become fans of these pages and receive marketing messages directly from the companies such as the "Heineken Hawaii Summer Sweepstakes," (34) "Bacardi Breezer Desktop Downloads" (35), and photos of Captain Morgan's upcoming products (36). The other six Pages did not appear in the search results when we attempted to access them as the under-21 user.

Applications

An abundance of Facebook Applications involve alcohol. More than 500 separate applications are currently associated with 8 general alcohol terms: alcohol, tequila, whisky, vodka, rum, beer, wine, and shots. We reviewed six Facebook Applications: "Bacardi Mojito Party," "Send Your Friends a Shot of Jose Cuervo," "Shots!," "Collect Shots!," "Beer Mail," and "Alcohol!!!"

"Bacardi Mojito Party" asked the user to virtually mix the perfect mojito with the right ingredients and in the correct sequence in order to satisfy a number of virtual patrons, along with several types of interactive games and activities (37). When attempting to access it directly from the under-21 profile, the user saw the following message: "Use of application 'Bacardi Mojito Party' has been restricted. We're sorry, but this application is not available to you. Please visit the Application Directory to find other applications." The under-21 user was not able to access "Bacardi Mojito Party."

The Application, "Send Your Friends a Shot of Jose Cuervo," contained the tequila's brand name in its title and allowed the under-21 user to access the Application's related Page. On this Page, the "About" section told users to "send shots of tequila to your friends" (38). The under-21 user was not able to access the Application itself.

The "Shots!" information page painted a particularly crude picture of the Application: "Give the gift of Shots! Absolutely no chase. Are you the life of a party? or the messy drunk passed out in the bathroom? FEED your friends SHOT after SHOT and get them absolutely F***ED UP!" (39). This Application was accessible to the under-21 user.

"Collect Shots!" was created for users to send virtual shots to their Facebook friends. The stated goal of the Application was to "Take a shot, then collect them and showcase them on your profile. See how many shots you can collect from your friends" (40). The Application listed more than 10,500 monthly active users and was accessible to the under-21 user.

The "Beer Mail" Application encouraged users to send their Facebook friends virtual beer gifts and advertised that the more beer users sent to their friends, the more beer gifts would be unlocked. The Application told users: "Love BEER? Share some BEER with your friends and get them drunk" (41). This Application listed more than 63,200 monthly active users. It was accessible to the under-21 user.

"Alcohol!!!" was another Application that allowed the user to virtually send their friends alcoholic drinks. The identifying photo displayed with the application was a Jose Cuervo tequila bottle. This application was also accessible to the under-21 user (42).

Four of the six alcohol Applications we found were accessible to the under-21 user. This user was able to send shots to Facebook friends, collect different types of alcohol, and display actions taken and related drinks on the user profile for others to view.

Events

Alcohol-related Facebook Events were commonplace, with a total of more than 2,200 Events associated with the five best-selling beer brands (Bud Light, Budweiser, Coors Light, Miller Lite, and Natural Light) and an additional total of more than 2,200 events associated with the five best-selling spirits brands (Smirnoff, Bacardi, Captain Morgan, Absolut, and Jack Daniels) (43).

"Smirnoff Saturdays" was a Facebook Event that took place in North Carolina in July 2009. The description of the event advertised a ten dollar entry fee for an open bar and free drinks from 9pm to 4am. The free drinks advertised in this Event included "dark and coke...cranberry and Smirnoff vodka...Hennessey and coke...beer of your choice." The Event also listed "open bar 9pm-11pm with college ID," "drink specials all nite," and "18 & over" in the description (44). This Event was accessed by the under-21 user.

Other recent alcohol-related events on Facebook included: a "Captain Morgan Welcome Back Tour of Gainesville," with the tagline of "Kick off the new semester w/ a little CAPTAIN in ya!" advertising to students at the University of Florida that they should not "miss the opportunity to party with the legend" (Captain Morgan himself) (45); an event entitled "Heineken Keg Party 2 at the Coast Nightclub" advertising a discounted price for Heineken beer with no mention of attendees needing to be 21 years of age or older (46), and "Lollapalooza '09," with a tagline reading "Come hang out with 93XRT and Budweiser!" This event advertised the rock concert Lollapalooza sponsored by Budweiser and featuring a number of popular artists such as The Killers, Kings of Leon and Snoop Dogg (47). All of these events were accessed by the under-21 user.

Groups

When we entered the term "alcohol" into the Facebook search engine, more than 58,000 Groups were displayed. More than 5,000 total Groups were associated with the top-selling beer brands, with more than 5,000 total Groups associated with the top-selling spirits brands (48). Many other Groups were associated with more general alcohol activities, such as the 342 Groups listed with the name "Binge Drinkers" (49).

Even when Groups had general alcohol-related names, specific alcohol brands were still listed throughout the Group. One of the "Binge Drinkers" Groups included comments on its wall answering the post "favorite beverage to binge on" such as: "Bud Diesel," "I am more of a Natural Light or Busch Light hugger," "...the only way to go is the silver bullet!," "JACK D!," and "...captain and monster" (50).

Some Groups displayed graphics of babies or guns with bottles of alcohol and used photos of specific brands of alcohol such as Bud Light, Smirnoff, Stella Artois, Mike's Hard Lemonade, or Joose as their identifying Group photo. Many alcohol-related Groups listed hyperlinks to alcohol-related Applications as well. Most of the alcohol-related Groups we reviewed were accessible to the under-21 user.

One Group we found promoted Joose, a caffeinated, high-octane alcohol product under recent scrutiny by members of the National Association of Attorneys General Youth Access to Alcohol Committee (51). The Joose Group included a photo of four Joose cans on ice, stating "JoosellUp!" Under the description the Group listed: "If you have yet to partake in the glory that is JOOSE... then you must change that, immediately! For those of you that know its glory, join and drink on. JOOSE lovers, drink on!" The Group also listed the brand's official website as its contact information. Under "Recent News," the Group posted: "Check out the new flavor of JOOSE now available at a store near you JUNGLE JOOSE!! ...packs 9.9% alc/vol in a big 23.5oz can that will ROCK YOU!" (52). The Joose Group and its related Page were accessible to the under-21 user.

Discussion

Although Facebook states publicly that it is "committed to protecting our user experience by keeping the site clean, consistent, and free from intrusive advertising" (53), the Facebook Ads, Pages, Applications, Events, and Groups promoting alcohol products and alcohol-related drinking behaviors tell a different story.

According to our limited review, it appears that paid alcohol Ads (that are subject to at least some guidelines) are relatively few compared to the tens of thousands of alcohol-related Pages, Applications, Events, and Groups (that are hardly subject to any guidelines). Such Facebook features with alcohol-related content are de-facto free advertising for the respective brands. As key parts of a comprehensive viral marketing plan, these other promotional Facebook features are just as important as traditional ads, if not more so. Viral marketing content must be interesting, useful, or entertaining enough to invite the consumer to pay attention, as opposed to content that intrudes or disrupts the user's online experience (54). The alcohol-related content on Facebook overwhelmingly fits the description of viral marketing.

Despite Facebook's *Alcohol Advertising Guidelines* requiring age restrictions on alcohol Ads, Pages, and Applications, much content promoting alcohol and dangerous drinking on Facebook is accessible to users of every age:

Only fifty percent of the Pages we reviewed restricted access based on age. Facebook users of all ages could become fans, view photos of individuals consuming alcohol, post and read comments, and receive updates from the Pages.

Applications advertised alcohol with specific brand names, photos, graphics, descriptive content including excessive drinking behaviors, and links to brand websites—none of which were restricted based on age.

Events advertised alcohol not only by advertising their sponsors (alcohol brands or bars), but also by displaying event information and attendee comments describing excessive and dangerous drinking behaviors and specific alcohol brands. No age restrictions on Events were indicated in our review, and the Facebook *Advertising Guidelines* do not include Events.

The Groups we reviewed advertised alcohol with specific product photos, hyperlinks to brand web sites, events sponsored by alcohol companies, and applications using product information, with no age restrictions.

Facebook's policies regarding alcohol Ads and alcohol-related content in Pages, Applications, Events, and Groups do not effectively protect its users from exposure. Facebook does not appear to monitor or ensure compliance with its own alcohol advertising rules, despite Facebook's claim that it reserves the right to reject or remove advertising that it deems contrary to its advertising philosophy (55). Despite policy requiring age restrictions on alcohol-related Pages and Applications, under-21 users are able to access many of them. Because no official policy requires age restrictions on alcohol-related Events or Groups, under-21 users are able to access many of these Facebook features as well.

Requiring age restrictions on Facebook features does not fix the entire problem with alcohol-related content on Facebook, however, unless the company extends its restrictions to Events and Groups and is more diligent in monitoring and enforcing the restrictions overall. Alcohol corporations enjoy viral marketing through Facebook because it allows them to promote their products through multiple features: an alcohol company (or third-party marketing firm) can create a Page with information about its brand where users post Events, Applications, and Groups; users create Groups with brand-related content and messages where they post Pages, Applications, and Events; the brand and users create brand-sponsored or related Events where brand websites, Pages, Applications, and Groups are posted; third-party developers and users create Applications using the brand name and embed the Applications in the Pages, Groups, and Events; and Ads promoting any of these features as well as specific products can be purchased by both corporate and individual users. In other words, it's the wild west of the internet, which Facebook's current policies cannot possibly effectively control.

Those policies, with their associated lack of monitoring and compliance, are also problematic because they do not ensure that the parties Facebook intends to maintain certain features (e.g., brand owners) are the ones actually doing so. It appears unlikely that alcohol companies are responsible for every single one of the hundreds of alcohol brand-related Pages on Facebook. Indeed, many Pages for specific brands displayed typos, bad grammar, curse words, and fuzzy graphics, not quite the usual slick promotion we see from alcohol producers. Alcohol-related Pages for general alcohol terms such as vodka are prevalent, yet they do not meet Facebook's definition of or purpose for Pages and were likely created by individual users. Alcohol-related Events and Groups, while seemingly generated by individual users, often contain brand web addresses, slogans, photos, and promotional messages. In true viral marketing fashion, the line between corporate advertising and user-generated content is almost completely blurred. This lack of clarity regarding who's doing what creates monumental challenges in regulating content.

At the same time that Facebook must address the inadequacies of its policies, the alcohol industry must also question its affiliation with Facebook as a marketing tool when content so blatantly violates many of the industry's own advertising guidelines. Pages, Applications, Events, and Groups all contained numerous posts about harmful behaviors associated with specific brand names of a variety of beer and spirits, many accessible to users of all ages. These Facebook formats also displayed content containing alcohol products that is prohibited by *Facebook Advertising Guidelines*, such as photos of guns alongside bottles of alcohol. As the alcohol industry continually states that it is capable of regulating its own advertising, it should carefully examine the ways its products are promoted on Facebook in violation of its own codes.

Recommendations

Changes clearly need to be made to the Facebook policies regulating advertising and demographics restrictions for alcohol-related content. As we have seen with the alcohol industry's ineffective birthdate website portals, it is easy to lie about one's age in order to view an alcohol brand's website. The only way to protect youth and young adults from the incessant promotion of alcohol on Facebook is to remove all content about alcohol. In light of the disturbing pervasiveness of alcohol-related advertising and messages found on Facebook, we recommend that Facebook should:

- Stop accepting paid advertisements for alcohol products;
- Stop allowing alcohol-related Pages, Applications, Events, and Groups;
- Hire external monitors to enforce these new regulations.

While considering the complete removal of Ads, Pages, Applications, Events, and Groups promoting alcohol products and alcohol-related messages, Facebook should at minimum immediately:

- Extend the restrictions currently placed on paid alcohol Ads to include messaging about dangerous drinking behaviors (not just specific alcohol products);
- Establish the same demographic restrictions currently placed on paid alcohol Ads to all Pages, Applications, Events, and Groups pertaining to alcohol;
- Hire external monitors to enforce these new regulations.

In addition to Facebook improving its guidelines and restrictions for alcohol advertising and related content, alcohol corporations also have responsibility and should:

- Require that Facebook remove all content about their products until it revises its advertising policy and instates monitoring and compliance practices;
- Require demographic restrictions in all Facebook features used to promote their products, including Ads, Pages, Applications, Events, and Groups.

Although Facebook hosts users of every age, it was originally created and designed by college students and has always been formatted to appeal to young people. Facebook started as a fun tool for college students to interact and connect online, yet it has morphed into another means for corporations and developers to exploit its users, particularly youth. Because Facebook continues to grow as the youth market's social networking tool of choice, the alcohol industry's influence on Facebook must not be underestimated. Given Facebook's current failure to protect youth from accessing pervasive content promoting alcohol products and harmful drinking behaviors, new policies regarding alcohol advertising are needed.

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Conflict of Interest Statements

I declare that I have no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled Alcohol Promotion on Facebook.

Sarah Mart, Jacob Mergendoller, Michele Simon, August 25, 2009.

References

1. Facebook.com [Internet]. Palo Alto: Company Timeline. [updated 2009 Aug; cited 2009 Aug 24]. Available from: <http://www.facebook.com/press.php#press/info.php?timeline>
2. The Surgeon General's call to action to prevent and reduce underage drinking. Final report. U.S. Department of Health and Human Services, Office of the Surgeon General, 2007. [cited 2009 Aug 24]. Available from: <http://www.surgeongeneral.gov/topics/underagedrinking/calltoaction.pdf>
3. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291:1238-1245.
4. Miller TR, Levy DT, Spicer, RS, Taylor, DM. Societal costs of underage drinking. J Stud Alcohol. 2006;67:519-528.
5. Harwood, H. (2000). Updating estimates of the economic costs of alcohol abuse in the United States: Estimates, update methods, and data, 2000. Final report. Rockville (MD): National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Department of Health and Human Services; 2002 Dec. NIH Publication No.: 98-4327. [cited 2009 Aug 24]. Available from: <http://pubs.niaaa.nih.gov/publications/economic-2000/alcoholcost.pdf>
6. Eaton DK, Kann L, Kinchen S, Shanklin S, Ross J, Hawkins J, Harris W. Youth risk behavior surveillance—United States, 2007. MMWR [Internet]. 2008 Jun 6 [cited 2009 Aug 4]; 57(SS-4): [about 1p.]. Available from: http://www.cdc.gov/HealthyYouth/yrbs/pdf/yrbss07_mmr.pdf
7. Jefferis B, Powwer C, Manor O. Adolescent drinking level and adult binge drinking in a national birth cohort. Addiction. 2005;100:543–549.
8. Englund MM, Egeland B, Oliva EM, Collins, WA. Childhood and adolescent predictors of heavy drinking and alcohol use disorders in early adulthood: a longitudinal developmental analysis. Addiction. 2008;103:23–35.
9. Pitkanen T, Kokko K, Lyyra AL, Pulkkinen, L. A developmental approach to alcohol drinking behaviour in adulthood: a follow-up study from age 8 to age 42. Addiction. 2008;103:48–68.
10. Spear L. Adolescent brain and the college drinker: Biological basis of propensity to use and misuse alcohol. J Stud Alcohol Suppl. 2002;14:71–81.
11. Bonomo YA, Bowes G, Coffey C, Carlin, JB, Patton, GC. Teenage drinking and the onset of alcohol dependence: a cohort study over seven years. Addiction. 2004;99:1520–1528.
12. Aaker DA. Managing Brand Equity. New York: The Free Press 1991.
13. Anderson P, De Bruijn A, Angus K, Gordon, R, Hastings G. Impact of alcohol advertising and media exposure on adolescent alcohol use: A systematic review of longitudinal studies. Special issue: The message and the media. Alcohol Alcohol. 2009;44:229-243.
14. Clicking with kids: Alcohol marketing and youth on the internet. Washington, DC: The Center on Alcohol Marketing and Youth. 2004 Mar [cited 2009 Jul 23]. Available from: <http://www.camy.org/research/internet0304/report-high.pdf>
15. Clicking with kids: Alcohol marketing and youth on the internet. Washington, DC: The Center on Alcohol Marketing and Youth. 2004 Mar [cited 2009 Jul 23]. Available from: <http://www.camy.org/research/internet0304/report-high.pdf>
16. Susman T. \$10,000 to Twitter about wine? It's a 'really Goode job.' The Los Angeles Times. 2009 Jun 9; [cited 2009 Aug 24]. Available from: <http://articles.latimes.com/2009/jun/05/nation/na-wine-twitter5>
17. Mullman J. Southern Comfort pours entire media budget into digital. Ad Age [Internet]. 2009 Jul 29 [cited 2009 Jul 30]. Available from: http://adage.com/article?article_id=138202
18. Facebook.com [Internet]. Palo Alto: Press Room Statistics [updated 2009 Aug; cited 2009 Jul 21]. Available from: <http://www.facebook.com/press/info.php?statistics#/press/info.php?statistics>
19. Corbett P. iStrategyLabs Blog [Internet]. 2009 Facebook Demographics and Statistics Report: 276% Growth in 35-54 Year Old Users [Internet]. Washington, DC: Peter Corbett. 2009 Jan 5 [cited 2009 Jul 21]. Available from: <http://www.istrategylabs.com/2009-facebook-demographics-and-statistics-report-276-growth-in-35-54-year-old-users>
20. Facebook.com [Internet]. Palo Alto: Facebook Advertising. [cited 2009 Aug 25]. Available from: <http://www.facebook.com/advertising/>
21. Facebook.com [Internet]. Palo Alto: Facebook Pages Product Guide. [cited 2009 Aug 25]. Available from: <http://www.facebook.com/advertising/FacebookPagesProductGuide.pdf>
22. Facebook.com [Internet]. Palo Alto: Create New Facebook Page. [cited 2009 Aug 25]. Available from: <http://www.facebook.com/pages/create.php>
23. Facebook.com [Internet]. Palo Alto: Facebook Advertising Guidelines. [updated 2009 Jul 29; cited 2009 Aug 24]. Available from: http://www.facebook.com/terms.php?ref=pf#ad_guidelines.php

24. Facebook.com [Internet]. Palo Alto: Facebook Advertising Guidelines. [updated 2009 Jul 29; cited 2009 Aug 24]. Available from: http://www.facebook.com/terms.php?ref=pf#/ad_guidelines.php
25. Facebook.com [Internet]. Palo Alto: Facebook Advertising Guidelines. [updated 2009 Jul 29; cited 2009 Aug 24]. Available from: http://www.facebook.com/terms.php?ref=pf#/ad_guidelines.php
26. Distilled Spirits Council of the United States, Inc. Code of responsible practices for beverage alcohol advertising and marketing. Washington, DC: The Council; 2009 Jan. Available from: http://www.discus.org/pdf/61332_DISCUS.pdf
27. Beer Institute. Advertising and Market Code. Washington, DC:2006 Jan. Available from: <http://www.beerinstitute.org/BeerInstitute/files/ccLibraryFiles/Filename/000000000384/2006ADCODE.pdf>
28. Facebook.com [Internet]. Palo Alto: Facebook Advertising Guidelines. [updated 2009 Jul 29; cited 2009 Aug 24]. Available from: http://www.facebook.com/terms.php?ref=pf#/ad_guidelines.php
29. Facebook.com [Internet]. Palo Alto: Additional policies governing all applications and developers: Alcohol content policy. [cited 2009 Aug 24]. Available from: http://wiki.developers.facebook.com/index.php/Additional_Policies_Governing_All_Applications_and_Developers#11_Alcohol_Content_Policy
30. Facebook.com [Internet]. Palo Alto: Statement of rights and responsibilities: Special provisions applicable to advertisers. [cited 2009 Aug 24]. Available from: <http://www.facebook.com/terms.php>
31. The Beverage Information Group. Handbook advance 2009: A special report on spirits, wine and beer sales and consumption in 2008. Norwalk (CT): M2Media360; 2009. 162 p.
32. Facebook.com [Internet]. Palo Alto: Captain Morgan Spiced Rum Fan Page. [cited 2009 Jul 30]. Available from: <http://www.facebook.com/home.php?#/pages/Captain-Morgan-Spiced-Rum/12222684652?ref=search>
33. Facebook.com [Internet]. Palo Alto: Alcohol!! Group. [cited 2009 Jul 30]. Available from: <http://www.facebook.com/home.php?#/pages/Alcohol/61126769687?ref=search>
34. Facebook.com [Internet]. Palo Alto: Heineken Facebook Fan Page. [cited 2009 Jul 21]. Available from: http://www.facebook.com/pages/Heineken/7174672354?_a=1#/pages/Heineken/7174672354
35. Facebook.com [Internet]. Palo Alto: Bacardi Breezer Facebook Fan Page. [cited 2009 Jul 21]. Available from: <http://www.facebook.com/s.php?init=q&q=bacardi&ref=ts#/bacaribreezer?ref=s>
36. Facebook.com [Internet]. Palo Alto: Captain Morgan Spiced Rum Facebook Fan Page. [cited 2009 Jul 21]. Available from: <http://www.facebook.com/album.php?aid=25465&id=12222684652>
37. Facebook.com [Internet]. Palo Alto: Buddy Media, Inc. Bacardi Mojito Party Application. [cited 2009 Jun 11]. Available from: <http://apps.facebook.com/bacardimojito>
38. Facebook.com [Internet]. Palo Alto: Send Your Friends a Shot of Jose Cuervo! Application. [cited 2009 Aug 25]. Available from: http://www.facebook.com/search/?q=Send+Your+Friends+a+Shot+of+Jose+Cuervo+&init=quick#/apps/application.php?id=128769787296&ref=search&sid=100000093643567_493115753_1
39. Facebook.com [Internet]. Palo Alto: Appsumption, Inc. Shots! Application. [cited 2009 Jun 23]. Available from: <http://www.facebook.com/apps/application.php?id=9922461478&ref=s>
40. Facebook.com [Internet]. Palo Alto: Drinking It Up, Inc. Collect Shots Application. [cited 2009 Jul 1]. Available from: <http://apps.facebook.com/shot-dxizko/>
41. Facebook.com [Internet]. Palo Alto: Beer Mail Application. [cited 2009 Jul 21]. Available from: <http://www.facebook.com/s.php?q=beer+mail&init=quick>
42. Facebook.com [Internet]. Palo Alto: Alcohol!!! Application. [cited 2009 Aug 25]. Available from: http://www.facebook.com/search/?q=Alcohol%21%21%21+&init=quick#/apps/application.php?id=58115755262&ref=search&sid=100000093643567_2087969142_1
43. The Beverage Information Group. Handbook advance 2009: A special report on spirits, wine and beer sales and consumption in 2008. Norwalk (CT): M2Media360; 2009. 162 p.
44. Facebook.com [Internet]. Palo Alto: Smirnoff Saturdays Event. [cited 2009 Jul 21]. Available from: http://www.facebook.com/search/?init=srp&sfxp=&o=&q=Smirnoff+Saturday#event.php?eid=106597613235&ref=search&sid=1824943240_830096551_1
45. Facebook.com [Internet]. Palo Alto: Captain Morgan Welcome Back Tour of Gainesville Event. [cited 2009 Jul 15]. Available from: <http://www.facebook.com/event.php?eid=35680177138&ref=search>
46. Facebook.com [Internet]. Palo Alto: Heineken Keg Party 2 at the Coast Nightclub Event. [cited 2009 Jul 15]. Available from: <http://www.facebook.com/event.php?eid=96080159756&ref=search>
47. Facebook.com [Internet]. Palo Alto: Lollapalooza '09 Event. [cited 2009 Jul 16]. Available from: <http://www.facebook.com/event.php?eid=97545690746&ref=search>
48. The Beverage Information Group. Handbook advance 2009: A special report on spirits, wine and beer sales and consumption in 2008. Norwalk (CT): M2Media360; 2009. 162 p.
49. Facebook.com [Internet]. Palo Alto: Binge Drinkers Group. [cited 2009 Aug 21]. Available from: <http://www.facebook.com/search/?q=Binge+Drinkers&init=quick#/topic.php?uid=17083118023&topic=5446>

50. Facebook.com [Internet]. Palo Alto: Binge Drinkers Group. [cited 2009 Aug 21]. Available from: <http://www.facebook.com/search/?q=Binge+Drinkers&init=quick#/topic.php?uid=17083118023&topic=5446>
51. Kesmodel D. Buzz Kill? Critics Target Alcohol-Caffeine Drinks. Wall Street Journal. 2009 AUG 3 [cited 2009 Aug 25]. Available from: <http://s.wsj.net/article/SB10001424052970203674704574328322293679870.html>
52. Facebook.com [Internet]. Palo Alto: JOOSE Group. [cited 2009 Aug 21]. Available from: <http://www.facebook.com/search/?q=joose&init=quick#/group.php?gid=2516791412&ref=search&sid=100000093643567.212094043..1>
53. Facebook.com [Internet]. Palo Alto: Facebook Advertising Guidelines. [updated 2009 Jul 29; cited 2009 Aug 24]. Available from: http://www.facebook.com/terms.php?ref=pf#/ad_guidelines.php
54. Howard T. Viral advertising spreads through marketing plans. USA Today. 2005 Jun 22 [updated 2005 Jun 23; cited 2009 Aug 21]. Available from: http://www.usatoday.com/money/advertising/2005-06-22-viral-usat_x.htm
55. Facebook.com [Internet]. Palo Alto: Facebook Advertising Guidelines. [updated 2009 Jul 29; cited 2009 Aug 24]. Available from: http://www.facebook.com/terms.php?ref=pf#/ad_guidelines.php

Adolescent Brain Development and Alcohol Abuse

Ken C. Winters, Ph.D.

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New scientific discoveries have put a much different perspective on our understanding of adolescent behavior. Research now suggests that the human brain is still maturing during the adolescent years. The developing brain may help explain why adolescents sometimes make decisions that are risky and can lead to safety or health concerns, including unique vulnerabilities to alcohol abuse.

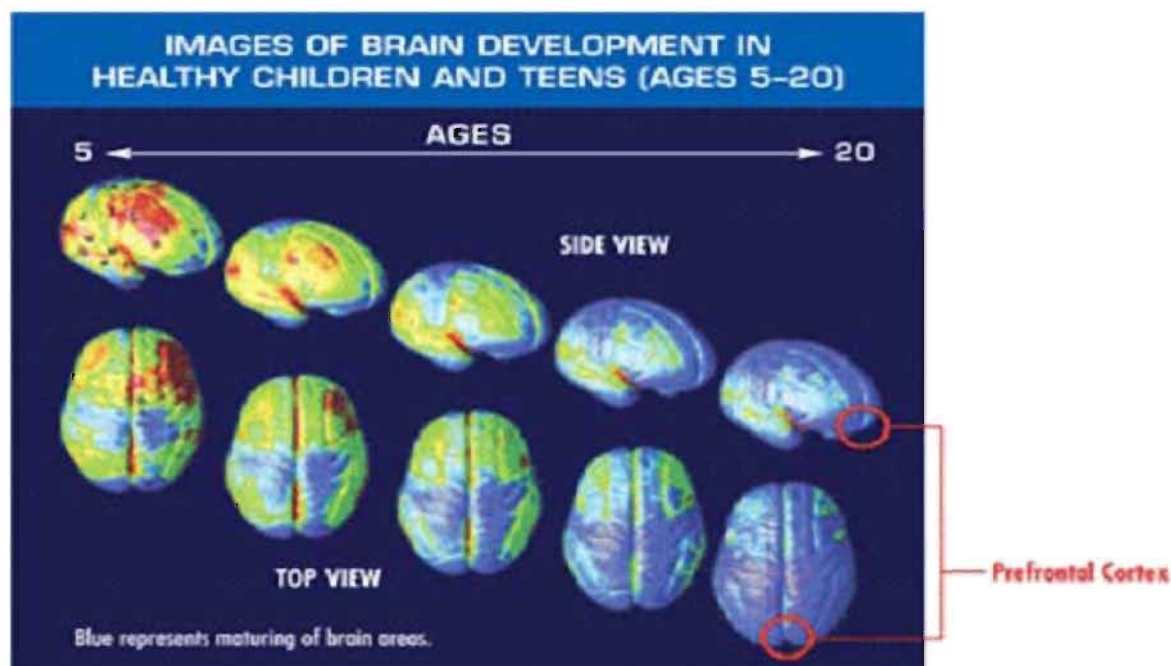
Work in Progress

Advanced technologies in brain imaging have provided windows to the developing brain. Based on the pioneering work of Jay Giedd and colleagues at the National Institute of Mental Health (1), evidence is accumulating that the brain is not fully formed at the end of childhood as earlier thought. The juvenile brain is still maturing in the teenage years, and reasoning and judgment are developing well into the early to mid 20s.

During the pre-teen years, the brain grows an excessive number of connections between brain cells. At about year 11 or 12, a young person begins to lose or "prune back" a substantial fraction of these connections. This loss is healthy in the long run and is a vital part of growing up. The pruning process clears out unneeded wiring to make way for more efficient and faster information-processing as we become adults. And it promotes building the long chains of nerve cells that are required for the more demanding problem-solving of adulthood.

The pruning process appears to be modified within each individual according to the principle of "use-it-or-lose-it," according to experts. Thus, neural connections or circuitry that gets exercised as a child grows up are retained, while the connections that are not activated or used, get pruned away. If you learned a musical instrument while growing up, the neural connections involved in music playing will be strong and resistant to pruning. Dr. Giedd refers to this process in this way: "Ineffective or weak connections are pruned in much the same way a gardener would prune a tree or bush, giving the plant the desired shape" (1).

This brain maturation tends to occur from the back of the brain to the front (see Figure 1). The front region of the brain, known as the prefrontal cortex, which is responsible for high-level reasoning and decision-making (such as having to consider multiple points of view when arriving at a decision), is the brain region that is relatively last to finish the maturation process.



Source: Copyright PNAS USA, 2004 May 25;101(21):8174-9. Epub 2004 May 17.

The prefrontal cortex is the part of the brain that enables a person to think clearly, to delay gratification and to control impulses. It is primarily responsible for how much priority to give incoming, highly emotional messages such as "Do this now." Because the emotion-related regions of the brain are predominantly located behind the front of the brain and have progressed more with the pruning process, it is difficult for the "control" part of the brain (the prefrontal cortex) to exert much influence. Psychologist Laurence Steinberg describes the teenager's brain as an automobile with "a well-developed accelerator but only a partly developed brake" (2).

Implications for Understanding Adolescent Behavior

Scientists caution against definitive linkages between brain development and adolescent behavior, but there is a growing sentiment among experts that when teenagers are feeling high emotion or intense peer pressure, conditions are ripe for the still-maturing circuitry in the front part of the brain to be overwhelmed, resulting in risky behaviors and decisions that lack judgment.

This does not mean that teenagers always make bad decisions and behave in ways that lead to harmful consequences. The teenage brain is capable of demonstrating sound mental ability; for example, mental capacities associated with language and spatial abilities are generally functioning at normal levels by adolescence. But the teenager, with less than optimal impulse control mechanisms, may be prone to act impulsively and with gut instinct when confronted with stressful situations, without fully appreciating the immediate consequences of his/her actions.

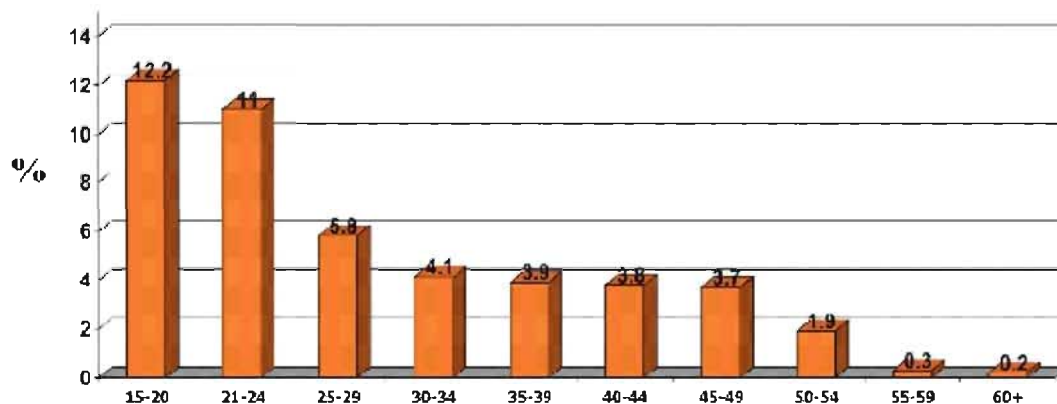
Experts say that even at ages 16 and 17, when compared to adults, adolescents on average are more impulsive, aggressive, emotionally volatile, likely to take risks, reactive to stress, vulnerable to peer pressure, prone to focus on and overestimate short-term payoffs and underplay longer-term consequences of ones' actions, and likely to overlook alternative courses of behavior (3).

The Developing Brain and Alcohol Abuse

Scientists are beginning to explore whether these new discoveries help to explain adolescent drug use and related impulsive behaviors. The adolescent, who has a tendency to take risks, is likely to be curious about alcohol. National surveys indicate that use of alcohol (as well as other drugs) is relatively common among youth (4). The majority of young people will try alcohol before the legal age of 21, and over half will try an illicit drug at least once during their teenage years. Furthermore, young people show higher rates of alcohol problems compared to older age groups. Table 1 below shows that among youth aged 15-20 years old, 12.2% met an official definition (5) of an alcohol dependence disorder within the past 12 months. This rate was much higher than the other age groups. For example, the rate of alcohol dependence was 4.1% for individuals in the 30-34 age group. A related finding from survey research is that the earlier the onset of alcohol use, the greater the likelihood that a person will develop an alcohol problem both during the teenage years as well as later in adulthood (6).

Prevalence of Past-Year DSM-IV Alcohol Dependence: United States, 2001-2002

(Grant, B.F., et al., *Drug and Alcohol Dependence*, 74, 223-234, 2004)

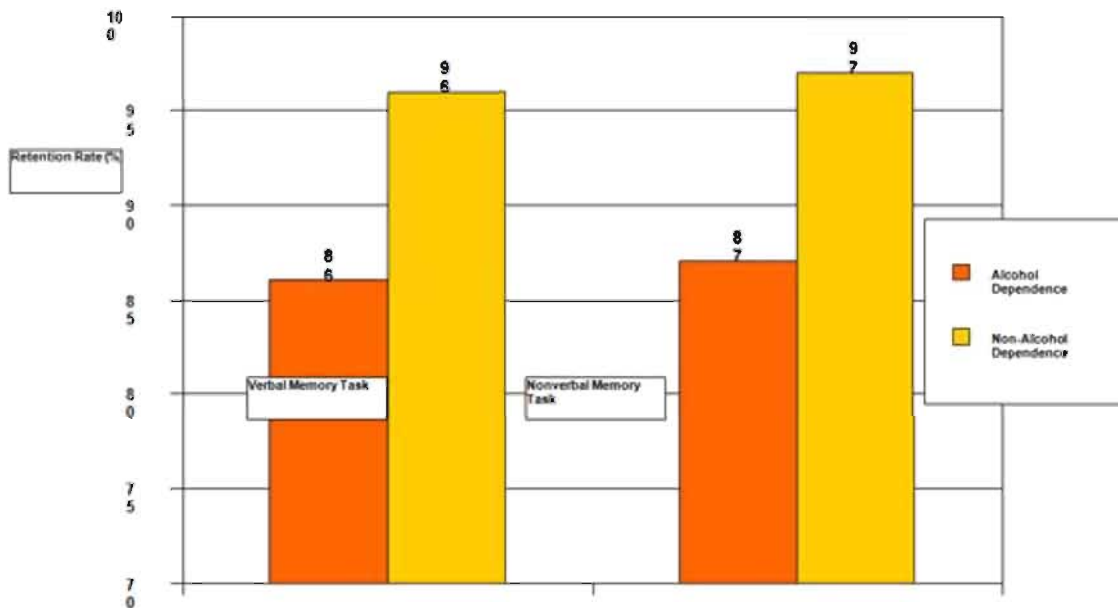


To what extent do brain development factors predispose adolescents to seek out and use and abuse alcohol? A related question is this: Are there any deleterious effects on brain development as result of alcohol abuse in adolescence? Evidence from animal and human data pertain to both of these questions.

1. Are adolescents more vulnerable than adults to the effects of alcohol? Several scientific findings provide provisional answers to this question. As already noted, a developing prefrontal cortex increases the likelihood of teenagers to act impulsively and to ignore the negative consequences of such behavior. Studies using animal models suggest that adolescents may subjectively report greater feelings of social disinhibition when drinking alcohol compared to adults (7).

This effect could create a more pleasurable social experience for the adolescent (e.g., contribute to feeling less shy) while drinking compared to adults. Also, adolescent rats are observed to be less sensitive to the effects of intoxication than adult rats. They typically consume two to three times as much alcohol for their body weight as adults (7). Adolescent humans also show this diminished sensitivity to intoxication; their higher metabolic rates allow them to consume higher amounts of alcohol (7). A lower sensitivity to alcohol's effects would be consistent with the observation that young people are capable of drinking large amounts of alcohol without feeling all that intoxicated. Hormones have a role here as well. Hormones encourage novelty seeking and promote social competitiveness. The revved-up hormonal production of adolescence may promote alcohol use to the extent that it represents a novel experience to the youth who is also seeking social approval from peers during the experience.

2. Arrested development? A limited amount of science suggests that the developing brain is prone to the deleterious effects of alcohol. Adolescent rats exposed to various amounts of alcohol have significantly more brain damage in their frontal cortex than their adult counterparts (7). They also show greater damage to their working memory. With long-term use, adolescent rats have shown massive neuronal loss in other key parts of the brain, including the cerebellum (sensory perception and motor coordination), basal forebrain (learning), and the neocortex (language) (7). In human studies, adolescents with an alcohol dependence disorder showed greater memory retrieval deficits compared to a non-dependent control group (see Table 2) (8).



Opportunities for Drug Prevention and Treatment

Where does this new science lead us? Can an understanding of adolescent brain development help us do a better job preventing and treating alcohol abuse among teenagers? While it's too early to say if this new knowledge will dramatically impact prevention, there are several things to consider.

Because many teens begin using alcohol at a young age and because of alcohol's possible deleterious effects on the developing brain, the urgency for prevention is real. Delaying the onset of alcohol use, especially if it is delayed until adulthood, is better for both brain development and for preventing escalation of use. Teenagers who abuse alcohol may avoid permanent neurological damage if they can cut down or abstain.

The possible dangers of alcohol use to the developing brain should be emphasized to both youth and parents. This concern should reinforce that underage drinking is associated with more dangers than the vague social and legal consequences often highlighted in prevention messages. Evidence now suggests deeper consequences, including possible harm to cognitive functioning.

Creating age-appropriate health curriculum to educate youth about their developing brain is a need. The emerging sciences of the neurobiology of addiction (9) and of brain development are providing new insights about how substances affect the brain and how teenagers make critical and life influencing decisions, including their decisions about substance use. Resources are needed to educate youth about this critical new knowledge in brain development. This emerging information can be harnessed to reframe and strengthen current drug prevention approaches by encouraging youth to capitalize on the assets of the developing brain, avail themselves of alternatives to potentially health-compromising risk-taking, and to promote personal growth and healthy lifestyles.

This new science also places importance on educating youth about the skill of using the “thinking breaks” when faced with having to make a decision that involves delaying or not delaying immediate gratification. Conditions under which the developing judgment region of the brain is likely to be challenged and how to engage in “second thought” mechanisms should be part of health education classes in schools.

There is also the need to educate parents about the developing teenage brain. If the seemingly irresponsible behaviors of teens are not truly willful acts but are the result of the brain still “under construction,” parents will want to be more tolerant of such annoying behaviors common during adolescence. On the other hand, brain development science reinforces the importance for parents to be actively involved in their teenager’s life. Rather than the message: “I need to know where you are and who you are with because I am not sure I can trust you,” the more scientifically justified message is: “I need to help you anticipate risky situations and how to deal with them.”

The evidence that youth are more vulnerable to effects of alcohol does not support policy arguments that our country should lower the minimum drinking age below 21 years of age. What is being learned about brain maturation serves to reinforce that a lowering of the minimum age for alcohol would have deleterious health effects on our youth.

Summary

Adolescence is a time when a young person forges a sense of self, experiments with independence, and seeks new experiences. This developmental period is also likely to be the years when we observe behaviors that reflect how social pressures and thrill-seeking can override common sense. The juvenile brain responds more quickly and more intensively to excitement, arousal, and rewards. It also may be more vulnerable to the effects of alcohol, which may place youth at an elevated risk for alcohol abuse and for early damage to their brain if alcohol is used. Channeling adolescent exuberance toward healthy and growth-enriching experiences is a vital priority for our schools and communities, as well as being among the important tasks for parents.

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References

1. Giedd, JN. Structural magnetic resonance imaging of the adolescent brain. *Annals NY Acad Sci* 2004;1021:77-85.
2. Steinberg, L. Risk taking in adolescence: What changes and why? In Dahl RE, Spears LP (eds). *Adolescent brain development: vulnerabilities and opportunities*. New York (NY): *Annals NY Acad Sci* 2004;1021:51-58.
3. Dahl RE. Adolescent brain development: A period of vulnerabilities and opportunities. In Dahl RE, Spears LP (eds). *Adolescent brain development: vulnerabilities and opportunities*. New York (NY): *Annals NY Acad Sci* 2004;1021:1-22.
4. Johnston LD, O'Malley PM, Bachman JG. *Monitoring the future: National survey results on drug use 1975 - 2005*. Washington, DC: National Institute on Drug Abuse 2006.
5. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington, DC: American Psychiatric Association 1994.
6. Grant BF, Dawson DA. Age of onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the National Longitudinal Alcohol Epidemiological Survey. *J Subst Abuse* 1997;9:103-110.
7. Spear LP. Alcohol's effects on adolescents. *Alcohol Health Res World* 2002;26:287-291.
8. Brown SA, Tapert SF, Granholm E, Delis DC. Neurocognitive functioning of adolescents: Effects of protracted alcohol use. *Alcohol: Clin Exp Res* 2000;24:164-171.
9. Nestler EJ, Malenka RC. The addicted brain. *Scientific Am* 2002;290:78-85.

Reducing Youth Access – The Impact of Policy Change

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Abstract

The enactment of social hosting laws is increasing both at the state level and at local levels throughout the nation. While specific wording of each law and the penalties associated with them may differ slightly, all social hosting laws establish liability against those who allow underage drinking events or parties on property they own, lease or otherwise control. The following article describes the progression of how one state enacted and strengthened its social hosting law and provided tools to educate parents and others at the local level.

Background:

Prior to 2003, the Kansas statutes regarding underage drinking were restricted to furnishing alcohol to a minor, the use of fake identification, the consumption of alcohol by a minor and illegal sales to minors. As is the case all too often, it took a tragedy for a policy change to occur. In Kansas, this was the death of a 17 year-old young man who was drinking alcohol with other teens at a friend's house. On his way home Paul Riggs crashed his truck into a tree, just blocks from his home. Three weeks later he died from his injuries.

The friend's parents were home that evening but unaware of the drinking that took place. Police later charged the couple's 15 year-old daughter with furnishing alcohol to minors; however, the parents could not be held accountable because of the lack of a social hosting law.

Two years later after extensive lobbying by Paul Riggs mother, the Kansas Legislature passed a social host law called "Paul's Law." The law made it illegal "to intentionally" permit a person's residence or any land, building, structure or room owned, occupied or procured by such person to be used by an invitee of such person or an invitee of such person's child or ward, in a manner that results in the possession or consumption therein of alcoholic liquor or cereal malt beverages by a minor. In the first law, unlawfully hosting minors consuming alcoholic liquor or cereal malt beverage was a class B person misdemeanor with a minimum fine of \$1,000. Additionally, the court could also sentence the offender to perform community or public service work as a condition of probation.

The enactment of KS 21-3610 in 2004 sent a strong message to parents about the liability issues they could face if they knowingly allowed underage drinking on their premises. The law fell short, however, as it specifically defined a minor as someone under the age of 18. This law was inconsistent with all of the other Kansas laws that defined a minor as someone under the age of 21, so Kansas began a new advocacy effort to strengthen the law.

In 2006, the Kansas Leadership to Keep Children Alcohol Free Committee, a statewide committee coordinated by the Kansas Family Partnership, began planning a campaign aimed at educating parents, the public and key leaders about reducing youth access to alcohol. This effort was designed to bring about a policy change that would make Kansas' social host law consistent with all other laws that relate to underage drinking in the state.

The Committee applied for and was awarded a \$5,000 stipend from the national Leadership to Keep Children Alcohol Free, in addition to having access to 20 hours of public relations assistance from the Washington, DC firm PR Solutions. The Kansas Leadership also received a \$1,000 health promotion policy grant from the AMA Alliance and \$5,000 of pro bono work from the advertising firm Walz Tetrick in Kansas City. These grants and funds were secured as a result of existing relationships of committee members.

In 2007, the new campaign "Not in Our House" was unveiled. An informational piece was developed that described the "flaw" in the current law that left a gap in who could be prosecuted under K.S.A. 21-3610c. Adults who provided alcohol to anyone 18, 19, or 20 years of age could not be prosecuted under the current statute. Over 2,500 informational pieces were mailed to key leaders including educators, healthcare professionals, law enforcement, prevention personnel and state partners. Cards were mailed to key community leaders and coalitions that read, "What is one of the biggest threats our teens face?" on the outside cover. The other side of the card read, "WE ARE – 53% of Kansas teens have used alcohol – Sadly we may have let them." Additionally, statistics taken from the annual Kansas Communities That Care Survey were cited. Data related to perception of being caught, percentage of youth who report their parents don't have clear rules about the use of alcohol and the percentage of youth who have drunk alcohol in the last 30 days were included.

Kansas SADD (Students Against Destructive Decisions) hand delivered similar materials that informed legislators about the current Kansas social hosting law. The piece described all of the other laws that defined a minor as anyone under the age of 21 and identified the social hosting law as the only law in Kansas that defined the legal age for underage drinking as 18. Messages included "If we don't fix the flaw in the law, our kids will pay the price." It also encouraged legislators to "please help us protect our children, our families, and our neighbors" and "make it easier for Kansas parents to say 'Not in Our House.'"

The Kansas Leadership to Keep Children Alcohol Free Committee had established relationships with legislators over previous years that were knowledgeable and concerned about reducing alcohol access to youth. As a result, a bill was introduced in 2007 to change the definition of a minor from 18 to 21. The bill omitted the specific language that referenced "anyone under the age of 18" and replaced it with "minor." Additionally, the penalty was changed from a Class B to a Class A misdemeanor. Community advocates testified at House and Senate Hearings on the issue. There was no opposition to the bill, and it was passed into law in 2007.

After passage of the revised social hosting law, the Kansas Leadership to Keep Children Alcohol Free unveiled a new campaign called "Not In Our House," aimed at educating parents, the public and key leaders about the law. Kansas Leadership to Keep Children Alcohol Free tied their campaign to materials that The International Institute for Alcohol Awareness, Scholastic and The Century Council had published in 2006. This presented an even greater partnership to distribute awareness materials regarding social hosting and underage drinking.

The first statewide partnership was established with the Kansas State High School Activities Association (KSHSAA). The KSHSAA printed and distributed posters and campaign materials to high school coaches at their annual conference. The Kansas Leadership to Keep Children Alcohol Free then developed and distributed "Not in Our House" materials that were sent to all Kansas high schools. The packet included the following tools:

- Resolution on Stopping Underage Drinking
- Parent Pledge form
- Social Host Brochure (English and Spanish versions)
- Social Host Parent Tip Card (English and Spanish versions)
- Partnership Agreements

School administrators were asked to become partners and were given various options for involvement. The options included the following:

- Be listed as a partner
- Inform others of the campaign
- Print "Not in Our House" materials
- Promote and distribute materials
- Promote materials in agency/school newsletters/publications
- Provide a link to the KFP/KS Leadership web page for downloadable materials

Results:

Since the "Not in Our House" (NIOH) campaign began, 94,120 pieces of educational materials informing Kansas families, schools and community members about social hosting have been distributed. Fifty-seven agencies have signed on to be listed as partners; 39 agreed to inform others of the campaign; 32 agreed to print materials; 41 agreed to distribute materials to constituents; 37 agreed to promote the campaign in agency publications; and 21 added a link to the KFP/KS Leadership web page. In this two-year period, 3,020 campaign materials have also been downloaded from the KFP's web site.

After one year of promotion of the "Not in Our House" materials, the KS Leadership to Keep Children Alcohol Free Committee learned from local community advocates and prevention specialists that enforcement problems of the social hosting law existed. The Committee distributed an online survey for law enforcement officers to determine the level of knowledge and support of the social hosting law and to obtain their perceptions of possible enforcement problems. Law enforcement indicated that proving "intent" was a challenge and that prosecutors were often unwilling to file charges.

One hundred and sixty-seven law enforcement officers responded to the survey. The results indicated that 80% of law enforcement officers were aware of the change in the social hosting law, and 53% indicated that their community was aware of the law. Officers generally supported the law, with 71% responding that they supported it completely, 26% generally agreed and 4% had mixed feelings about the law.

Barriers to enforcement included lack of community support, manpower for enforcement, reluctance of prosecutors, parental attitudes and lack of community support. Law enforcement also perceived that awareness, knowledge and interest in the law in their communities were approximately 55%. Additionally, less than 50% reported that the judicial system supported the law. Data from the Kansas

Bureau of Investigation, however, indicates that there was an increase in arrests for social hosting from 79 in 2007 to 140 arrests in 2008.

Prior to the 2009 Kansas legislative session, community coalition members in one Kansas community suggested to their State Representative that an addition to K.S.A. 3610c would strengthen the law and make it easier for law enforcement to charge adults with social hosting. The issue of "intentionally providing alcohol to minors" was felt to be a barrier to prosecutions. In 2009, a change to add the word "recklessly" to the law was proposed.

Since enactment of the social hosting law, arrests have increased. In 2005, the year after the law was enacted, there were only eleven arrests. Since that time arrests have increased from 20 in 2005, 79 in 2007 and 140 in 2008. Only five months of data from 2009 were available at the time of this article. During this time period, however, there have only been 47 arrests. It is difficult to know if there will be proportionately more during the remaining seven months of the year or if 2009 will show a reduction in arrests from the previous year.

During 2008 there were reduced efforts on the part of the Kansas Leadership Committee to promote the "Not In Our House" campaign. Orders for materials were filled, but specific, targeted efforts to engage schools and others with the campaign did not occur. Based on the number of arrests to date, the Kansas Leadership Committee is planning renewed efforts to engage statewide partners to increase awareness of and support for enforcement of the social hosting law. The Committee is developing a "State of the State" document on underage drinking. This document will be sent to statewide key groups to enlist their assistance in encouraging enforcement at the local level.

The experience of the Kansas Leadership to Keep Children Alcohol Free demonstrates that the actions of a coalition with dedicated and committed members can result in statewide policy change. Enactment of a policy change designed to reduce access, however, is just one piece of the pie. Community laws and norms, parental attitudes and conditions that make enforcement difficult all play a significant role in whether adult behavior will change related to social hosting. Strongly held beliefs by parents and other adults that youth "are going to drink", that it is a "right of passage" and that "youth will be safer if they drink at home" present ongoing challenges to reducing youth access. Additionally, the belief that "if they are old enough to go to war, then they are old enough to drink" is still pervasive and presents additional challenges for community coalitions and others to counter.

Continued efforts will be required to change long held beliefs and attitudes to reduce youth access to alcohol from adults.

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Michelle has been involved in substance abuse prevention either as a volunteer or professional staff for over 19 years. She has been Executive Director of Kansas Family Partnership since 1997 and has quadrupled the agency's budget during her tenure. She oversees agency staff and is responsible for the overall budgeting, grant writing, board development, personnel management, grant development and fiscal management of the agency. She was instrumental in establishing the Statewide Kansas Red Ribbon Campaign, developing the Kansas Leadership to Keep Children Alcohol Free Initiative and has received local and national awards for her efforts in prevention. Michelle holds a bachelor's degree in Political Science and Personnel Administration and a Masters Degree in Public Administration from the University of Kansas.

WHO's Global Strategy to Reduce Alcohol-Related Harm: Can the Potential be Realized?

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Abstract

Alcohol-related harm is a significant factor in global death and disability. The World Health Organization is currently developing a global strategy on alcohol-related harm. Working documents for the strategy are promising and contain key elements of what research suggests will be a successful approach. However, the strategy will have little impact if resources are not identified to implement it. One possible source is increased taxation on alcohol. However, the tobacco experience suggests that increased taxes and other effective control policies will only come about through substantial investments on the part of governments, private individuals and charities, and civil society in documenting and raising awareness about alcohol-related harm and building support for evidence-based alcohol control policies.

The Context

According to World Health Organization (WHO) estimates, in 2004 alcohol was responsible for 4.6 percent of global death and disability, causing 2.5 million deaths, including 320,000 deaths among young people between the ages of 15 and 29.(1, 2) When WHO compared the burden of disease from alcohol, tobacco and 24 other risk factors in 2000, alcohol ranked just below tobacco in its impact on global health and had a greater share of the global burden of disease than unsafe water and sanitation, cholesterol or obesity.(3) Alcohol's impact on health is even greater in some regions and populations: in Latin America, 14 percent of male death and disability is caused by alcohol.(1) In Eastern Europe, 19.2 percent of males have alcohol use disorders.(4) All these estimates incorporate adjustments for alcohol's possible protective effects against cardiovascular and other diseases in some persons above age 40. In the U.S. alone, the economic costs of alcohol use were estimated at \$234.8 billion in 2007 dollars, or 2.7 percent of the gross domestic product. These include costs of health care, law enforcement, property damage and loss, social work services and lost productivity.(1)

Although throughout the world men do much of the drinking, women suffer the bulk of the consequences.(5) Social harms are not included in the estimates above, and they are not evenly distributed. They affect the poorest families as well as those with the heaviest drinkers, impinging on family budgets and contributing to domestic violence and divorce.(5) Alcohol use among youth affects human capital development and has been related to educational failure, unsafe sex and criminal behavior.(6) Costs of alcohol use are generally even higher in the criminal justice and social welfare sectors than in the health sector, as problem drinkers are often more likely to encounter these systems than health care settings.(6)

Worldwide, development and economic prosperity have generally led to higher rates of alcohol use in the absence of mitigating factors such as, for example, the influence of Islamic injunctions against drinking. Consumption of alcohol has been declining in most of the developed nations in the past two decades, while it is increasing elsewhere, particularly in the countries of Asia, Eastern Europe and the former Soviet Union.(5) At the same time, rapid market transitions and liberalization have contributed to a political environment in which policies that have shown effectiveness in limiting alcohol-related harm either do not exist or are being eroded and repealed, resulting in increased risk from alcohol use for youth and other vulnerable populations.

Several recent research reviews have established an evidence-based menu of policy options for reducing and preventing alcohol-related harms (6-8), and there is a track record of global organizations such as WHO and the World Bank echoing these recommendations.(9, 10) These options include:

Higher taxes on alcoholic beverages – this strategy is particularly effective in reducing youthful consumption, if there is not a substantial informal market for alcohol

Regulating physical availability of alcohol through minimum legal purchase age; government monopoly of retail sales; restrictions on the density, locations, and laws that make providers of alcohol liable for harms from drinking by those they serve; and restrictions on product types (e.g. products clearly targeting underage drinkers)

Altering the drinking context by enforcing on-premise policies such as proscriptions against serving intoxicated patrons, training bar staff and managers, and promoting community mobilization

Limiting alcohol promotion through comprehensive bans on advertising and promotion or strong restrictions combined with counter-advertising

Deterrence through sanctions on drinking-driving, such as laws against driving while at or above a defined blood-alcohol level, sobriety checkpoints and random breath-testing, graduated licensing for novice drivers, lower blood-alcohol limits for young drivers and administrative license suspension for violation of blood-alcohol limits

Treatment and early intervention, including brief interventions in primary care settings as well as access to treatment for alcohol dependence, whether professional or voluntary (e.g. Alcoholics Anonymous)

The Opportunity

In May 2008, the World Health Assembly, in resolution WHA61.4, commissioned WHO to design a global strategy to reduce and prevent the harmful consequences of alcohol use. This strategy will have been developed through extensive consultations with Member States, non-governmental and intergovernmental organizations, and "economic operators" (i.e. various segments of the alcohol industry). The strategy is due to be presented to WHO's Executive Board in January 2010 and will be adopted or rejected at the World Health Assembly in May of 2010.

The global strategy will set the global course on alcohol problems prevention for the next decade. Currently, resources for global alcohol work are minimal, at WHO and elsewhere. Investment in global alcohol policy development and research translation at this time has the potential to influence this strategy so that it reflects the best research evidence available, is developed free of commercial interests and has the strongest possible chance of success in reducing the global burden of alcohol problems.

A "working document" for developing the draft global strategy has been posted on the WHO web site in six languages (the English version is available at http://www.who.int/substance_abuse/activities/msbwden.pdf). This document is a very good start. Drawing on the consultation process, it identifies ten target areas for Member States: awareness and commitment, health services' response, community action, drink-driving policies and countermeasures, availability of alcohol, marketing of alcoholic beverages, pricing policies, harm-reduction approaches, reducing the public health impact of illegal or informal alcohol and monitoring and surveillance. The working document outlines evidence-based strategies and policies under each of these subheads. Coverage is comprehensive, although the setting of priorities based on research support in each area could be clearer.

The Potential

The draft strategy document does a good job of laying out the "what" as in "what should be done." Assuming that its recommendations survive the process of debate and compromise among Member States that will ensue between now and May 2010, a second step will be needed: the "how." How will Member States get from here to adoption and enforcement of the mix of policies and programs the strategy lays out? Translating the evidence-based policies into public health practice will require an investment in public health infrastructure in activities similar to what has been done to promote global tobacco control. These strategies include:

- organizing regional meetings and trainings of alcohol policy advocates in developing and transitional regions of the world in order to highlight the burden of alcohol problems in those regions and disseminate effective tools for their reduction and prevention;
- developing and compiling training and scientific materials to support efforts to implement effective problem reduction strategies;
- employing aggressive public communications to raise the global profile of alcohol problems and policies;
- providing technical assistance and mini-grants to local organizations in resource-poor countries to aid in building awareness of and support for effective problem reduction strategies;
- conducting case study and translational research into the implementation of local prevention programs to assess their effectiveness in differing cultural, social, political, and economic settings, and disseminating the findings;
- building and promoting use of web-based tools to support local action to prevent alcohol-related problems;
- furthering partnerships at regional and global levels that raise visibility of alcohol-related problems as a global health issue, and promote effective action to prevent them.

Where will this investment come from? An obvious source is increased alcohol taxes, which serve the dual function of raising much-needed funds for the strategy and reducing alcohol consumption and related harm.(11) Tobacco taxes have risen significantly in recent years across the United States, and implementing health-enhancing tobacco taxes is one element to which governments that are signatory to the Framework Convention on Tobacco Control commit themselves.(12) However, the road to that Framework Convention, and to those tax increases, was paved with non-tax investments in tobacco

control. There is near-global consensus that tobacco control requires support and resources from government and civil society. There is far less consensus (and far less funding) for global alcohol control. Where are the public health charities that will lead the way, the individual philanthropists who will take courageous stands and make substantial investments? Where are the visionary national governments willing to pressure their peers into greater recognition of and funding to reduce alcohol problems in low- and middle-income countries?

Significant advances in the last eight years in epidemiology and prevention research have established both an unprecedented scientific base for and a well-documented picture of the urgency of national, regional and global action. The time is ripe, and the need is great not only for the development of an effective global strategy that will support national, regional and global action to raise awareness about alcohol problems, but also for the identification of the resources to encourage, enact and enforce the policies that can reduce and prevent them.

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References

1. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *The Lancet*. 2009;373:2223-33.
2. World Health Organization. Working document for developing a draft global strategy to reduce harmful use of alcohol. Geneva: World Health Organization; 2009 [updated 2009; cited September 12, 2009]; available from: http://www.who.int/substance_abuse/activities/msbwden.pdf.
3. World Health Organization. World Health Report 2002: Reducing Risks, Promoting Healthy Life. Geneva: World Health Organization; 2002.
4. Rehm J. Death and disability attributable to alcohol among youth. In: Jernigan D, editor. Washington, D.C.; 2003.
5. Room R, Jernigan D, Carlini Cotrim B, Gureje O, Mäkelä K, Marshall M, et al. Alcohol in developing societies: a public health approach. Helsinki and Geneva: Finnish Foundation for Alcohol Studies and World Health Organization; 2002.
6. Jernigan D, Room R. Alcohol in development and in health and social policy. Washington, DC: World Bank Discussion Papers Series; 2004.
7. Babor TF, Caetano R, Casswell S, Edwards G, Giesbrecht N, Graham K, et al. Alcohol: no ordinary commodity. Oxford: Oxford University Press; 2003.
8. WHO Expert Committee on Problems Related to Alcohol Consumption. Second report / WHO Expert Committee on Problems Related to Alcohol Consumption. Geneva: World Health Organization; 2007.
9. World Health Organization. Global Status Report on Alcohol. Geneva: WHO, Substance Abuse Department, WHO/HSC/SAB/99.11; 1999.
10. World Bank. PH @ a Glance: Alcohol. World Bank; 2003 [updated 2003; cited May 25, 2004]; available from: <http://wbinfo018.worldbank.org/HDNet/hddocs.nsf/0/09174c13bbe34c9f85256df3004ee21a?OpenDocument>.
11. Cook PJ. A free lunch. *Journal of Drug Policy Analysis*. 2008;1(1):1-5.
12. World Health Organization. Framework Convention on Tobacco Control. 2005 [cited October 11, 2008]. Available from: http://www.who.int/tobacco/framework/WHO_FCTC_english.pdf.