We know that alcohol advertising spurs underage drinking, with all its attendant risks. RAND researchers explored how many alcohol ads kids see, how those ads affect their attitudes, and how long they affect youths. The findings may help policymakers craft approaches to this public health problem.
Drinking by underage youths in the United States is widespread and poses a serious public health problem. An estimated 70–80 percent of adolescents have consumed alcohol, and half have been drunk at least once by the end of high school. Underage drinking substantially raises the risks of death from motor-vehicle crashes, from other accidents, and from homicide and suicide, which are the four leading causes of mortality for Americans under the age of 21.

Alcohol advertising contributes to underage drinking. It can lead youths to initiate drinking and increase their consumption. Despite the established connection between alcohol ads and underage drinking, there are significant gaps in scientific understanding about this connection. Research to date has provided only spotty answers to several key questions: How much exposure to alcohol ads do youths get from all the media they consume? Do rates of exposure vary for different demographic groups? Which media are most likely to expose youths to alcohol ads? What is the immediate effect of youths’ exposure to alcohol ads, and how long does the effect last?

To answer these questions, a team of RAND researchers conducted an intensive study of 600 11- to 13-year-olds over two-week period using a unique approach. Participants were given specially programmed cell phones and asked to report every alcohol ad they encountered over the two-week period as they went about their normal activities. Directly following each reported exposure and at random times throughout the day, youths were asked to report their beliefs about drinking. This method allowed researchers to compare youths’ beliefs immediately after exposure to an ad with their beliefs at random moments when they were not exposed to ads.

Youths Were Exposed to an Average of Three Alcohol Ads per Day

The study found that, on average, the youths in the study witnessed three alcohol ads per day. Exposure to ads varied by race, ethnicity, and gender:

- African American and Hispanic youths were exposed to more ads: an average of 4.1 and 3.4 ads per day, respectively—substantially more than non-Hispanic white youths, who were exposed to two ads per day.
- Girls were exposed to 30 percent more ads than boys were.

Participants encountered the most ads (38 percent) in outdoor displays, such as billboards and signs outside stores and bars. Television commercials were a close second (26 percent).

Two-thirds (66 percent) of the ads encountered were for beer, 23 percent for distilled spirits, and 17 percent for wine.*

* These percentages total more than 100 percent because some youths identified ads as being relevant to more than one category.
Youth Beliefs About Drinking Shifted at Moments of Exposure

Youths registered an immediate shift in perceptions of drinking when they encountered an alcohol ad:

- Following exposure to an ad, youths reported more-favorable beliefs about the typical person their age who drinks alcohol than when they responded to the random prompts. At moments of exposure, their beliefs looked like those of youths 12 months older.
- White youths also perceived drinking to be more common among their peers following exposure to an ad than at random prompts.
- The effect that a single exposure to an ad had on youths’ beliefs was evident for up to two days, after which perceptions of drinking returned to what they were during times of nonexposure to ads.

Youth Interpretations Influenced Ads’ Impact

One other factor influenced youth reactions to exposure: how they interpreted the ads. Youths were asked to log brief assessments of each ad to which they were exposed, noting whether they were skeptical toward the ad (“Does it make drinking seem better than it really is?”) or liked each ad and whether they identified with people shown in the ad:

- Following exposure to ads judged positively, youths viewed drinking more positively than they did when responding to queries at random moments.
- Though only a small share of ads were viewed positively overall, youths responded to most ads with at least one form of positive judgment—that is, they liked it, identified with the people in it, or saw it without skepticism. Results suggested that judging ads positively on any of these dimensions may shift youth attitudes toward a more positive view of drinking.

Key findings

- Youths in the study (ages 11–14) were exposed to an average of three alcohol ads per day; black and Hispanic youths’ exposure was roughly double that of white youths.
- Exposure to alcohol ads led youths to view alcohol and drinking more positively.
- Ads that youths perceived negatively had a smaller, though still positive, impact on youths’ views of alcohol’s desirability.
- The effect of a single exposure was substantial and lasted up to two days.
Implications for Policy and Research

1. Exposure to an average of three ads per day, with effects that persist for up to two days, raises concerns about the possible continuous effect of ads, persuading youths to view drinking more positively. In addition to reducing exposures to alcohol, it is important to develop and test strategies for interrupting cumulative effects with countermessaging through the media, as well as from parents and other influential sources, at regular intervals.

2. Most youth exposures happened via outdoor signs and television commercials. Regulators should consider restrictions on alcohol ads in these venues, with particular focus on reducing exposures among black and Hispanic youths.

3. Research needs to explore in greater depth how youths process alcohol ads and which ad characteristics have the greatest influence. Expanding knowledge in these areas can inform efforts to limit exposure to problematic ads and help youths become more resilient to such exposure.

This brief describes work done in RAND Health and documented in the following publications:


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