Even Negligible Amounts of Alcohol Linked to Increased Risk for Traffic Injury

Advocates of lower legal BAC limits for driving received a jolt of support this week from a new study that looked at nearly 1.5 mil fatal accidents in the US from 1994-2008. For the first time, according to the authors, driver BACs were analyzed in increments of .01. Their key conclusion: “The severity of life-threatening motor-vehicle accidents increases significantly at blood alcohol concentrations (BACs) far lower than the current US limit of .08.” Put more colloquially: “compared to sober drivers, buzzed drivers are associated with significantly more dangerous accidents than are sober drivers.” Indeed, the authors even discovered that driver BACs of just .01 were associated with significantly more severe accidents than BACs of 0.0. “Even with a BAC of 0.01% there are 4.33 serious injuries for every non-serious injury versus 3.17 for sober drivers,” the authors found. This increased injury ratio is especially clear among drivers themselves, and injury ratios increase sharply when BACs reach .15. (At BACs of .15, that 4.33:1 increases to 7:1.) Injury ratios for passengers and to those outside the driver’s vehicle are slightly higher compared to accidents where the driver was at 0.0, but barely change by BAC.

How could such low BACs be linked to more severe injuries? The authors did not attribute causation to alcohol but discovered 3 “mechanisms” which they believe mediate the relationship: speed, seatbelts and who hit who. It turns out that “buzzed drivers are significantly more likely to speed, to be improperly restrained and to drive the striking vehicle” than sober drivers and “each of these conditions is associated with unusually severe accidents.” The author’s predictable policy advice: “Our evidence suggests that it may be appropriate to recalibrate the US BAC limit closer to the lower limits used in Sweden (.02) and Japan (.03).” Not surprisingly, the study received attention immediately upon its release, with headlines like this in the San Diego Union Tribune: “UCSD Researchers: No amount of alcohol is safe for drivers.”

It will be interesting to see whether/how the sociologists’ methodology will be questioned, aside from the immediate common-sense response that such low BAC levels can’t truly be dangerous. The American Beverage Institute immediately criticized the study for limiting the investigation to fatal accidents, a tiny proportion of the total, and pointing out that crashes with drivers at low BAC are a tiny percentage of those fatal accidents. Then too, BAC readings are available for only about 1/3 of all fatal crashes during those years. Does that raise questions about the findings? No, argue the researchers, since even though reporting significantly improved over the course of the study, the injury ratios didn’t change year by year. Also, they got the same results when the findings were standardized by hour of day, month and age of vehicle. There was one curious finding that the authors did not address. Injury severity ratios were lower at BACs of .03 and .04 than at .01 and .02. They were also lower at .06 and .07 than at .05. Then too, the severity ratios at .08 were the same as at .02 (though in each case still higher than at 0.0). This clearly affects the causality issue, but policymakers are more likely to focus on the correlation, as did the authors.

Is “Extreme Drinking” the New Teenage Drinking “Epidemic?”

Once again, prom/graduation season, together with continued attention to high-alcohol, single-serve malt beverage products, has brought on another round of...
media focus on teen drinking. Parade Magazine, with a circulation of over 32 million via its weekly inclusion in numerous daily newspapers, headlined a recent cover story: “The Underage Drinking Epidemic.” But rather than focus on teen drinking per se, Parade claimed that “what is new – and increasingly alarming to those confronting the issue – is the rising trend of extreme underage drinking.” As INSIGHTS has reported, a number of national surveys, including MTF and PATS, have reported significant long-term and in some cases short term declines in not only teen drinking but also in teen binge drinking. Parade offered little to counter that data other than: 1) a statement that both sides in the minimum age debate “agree that binge drinking is a growing problem” and; 2) a comment from researcher Mary Clare O’Brien about increasing numbers of young people showing up in emergency departments with very high BACs. The magazine also reported a CDC study that suggests 90% of all teen drinking is binge drinking.

In any case, Parade pegs the rise in extreme drinking to the fact that there are “now more and more dangerous” ways for teens to get drunk rapidly and cheaply. They include:

- Mixing alcohol with highly caffeinated drinks, including the high-alcohol malt beverages.
- An increasing preference for spirits vs. beer among young people (this has been happening for years).
- “The influence of social media,” by which young people can easily share recipes for “Jungle Juice,” an apparently increasingly popular mix of fruit juices, Everclear and other spirits.

These trends have “raised the stakes,” Parade reported, adding anecdotal incidents of extreme drinking, quotes from teens and again information about caffeinated alcohol beverages and their replacements. A Boston University researcher told Parade about a recent study of his which found that among high school students “by far, liquor is the beverage of choice,” including during drinking games, that result in young people consuming multiple shots.

Elsewhere, the journal Pediatrics will include with its July print edition a report about a German teenager who barely survived an incident after downing the equivalent of 22 shots of vodka together with 3 liters of energy drinks. Oddly, the student was an athlete who was ostensibly attempting to improve his running performance. Yet another study of the dangers of mixing alcohol and caffeine will appear in the July edition of Alcoholism: Clinical and Experimental Research. Finally, the Chicago Tribune ran a separate article (as did other newspapers) to amplify the Parade feature. It recapped some of the data from the cover story, but also included information on the 14 colleges that created the Learning Collaborative to share best practices to address campus drinking problems (see May 15 AII Update).

“Toward Liquor Control”: A Model for Today’s Regulators or a Relic with Limited Relevance?

Anyone who has followed alcohol policy debates over the last few decades has heard talk of “Toward Liquor Control,” a study commissioned by John Rockefeller Jr to help guide the nation and states as the US came out of Prohibition. Authors Raymond Fosdick and Albert Scott attempted to provide a blueprint that touched on key control, taxation and availability matters. Some industry attorneys (especially in the beer business) and regulators have broadly praised “Toward Liquor Control,” for its guidance then and indeed believe it provides a strong model for current regulators. Unfortunately, the book has been out of print for years and unavailable outside of selective quotation. The Center for Alcohol Policy (CAP), an education arm funded primarily by the National Beer Wholesalers Association, recently re-published “Toward Liquor Control.”

As noted, a handful of beer wholesaler attorney/advocates in particular have sung the study’s praises for years. But they’re not the only ones. Jim Sgueo of the National Alcohol Beverage Control Association provided a squib that called the study “just as important today as when it was written in 1933.” Historian Daniel Okrent agreed the study is “as relevant today at it was then.” CAP recently announced that this year’s Fourth Annual Essay Contest topic is “The Importance of Toward Liquor Control to Modern Alcohol Policy.”

But is this a blueprint any industry advocates should get behind? The central philosophical principle of “Toward Liquor Control” is voiced in Rockefeller’s original introduction: “Only as the profit motive is eliminated is there any hope of controlling the liquor traffic in the interest of a decent society…. This point cannot be too heavily stressed.” This is not a whim of the study’s funding source. Fosdick and Scott bought into the removal of the profit motive from the alcohol beverage business lock, stock and barrel, repeating its importance numerous times in the short blueprint. Just how relevant can a plan of control based on eliminating private profits be to the American alcohol beverage business as it exists in 2011?
Key Principles and Conclusions from “Toward Liquor Control”; No Ads, No Bars, No Liquor by the Drink

Several practical “principles” guided the authors:

- “Bootlegging, racketeering and the whole wretched nexus of crime” that developed during Prohibition “must be wiped out.” Similarly, “the saloon was a menace to society and must never be allowed to return.”
- Many people do not drink but “public opinion will not support the thesis that the temperate use of alcohol is inconsistent with sobriety, self control, good citizenship and social responsibility.”
- America was in “no mood” to stand any “aggressiveness” on the part of the trade. While the public was “gratified by the record of sobriety that has attended the return of beer,” it remained “distinctly apprehensive over the prospective legalized return of spirits.”
- America “believes” in a solution that allows “sane moderate use of alcohol” while minimizing “evils of excess.”

These principles reflect what had to be a relatively progressive attitude at the time that suggests moderate drinking, at least of beer and wine, has a legitimate place in American culture. The bootlegging and saloon concerns seem a bit extreme from the standpoint of 2011, but were certainly understandable then. But the demonization of liquor, which runs throughout the plan, is simply unsupportable. Fosdick and Scott’s key “conclusions” are a mixture of common sense, a fierce rejection of private enterprise for alcohol, a somewhat naive embrace of light beer and wine, and an understanding that temperance cannot be achieved solely through laws:

- “State by state bone dry prohibition” would be unsuccessful without “overwhelming public support.”
- Light wines and 3.2 beers (by weight, about 4% by volume) “do not constitute a serious social problem.” “It is primarily the distilled liquors, and secondarily, the heavier beers and wines that create the real problems.”
- The license approach, compared to state control, “contains a fundamental flaw in that it retains the private profit motive which makes inevitable the stimulation of sales.”
- “The best approach to the problem of heavier alcoholic beverages is through state control.” That would include “an exclusive monopoly of retail sale for off-premise consumption” that “determines prices, fixes the location of stores, controls advertising, and in general manages the trade in such a way as to meet a minimum, un-stimulated demand within conditions established solely in the interests of society.” Again, Fosdick and Scott would bar all on-premise sales of anything other than 3.2 beer or light wines. Bars as we know them would not exist.
- The primary objective of taxation should be social control, not revenue.
- Education, and not simply schooling, “has a greater part to play in creating a sober nation than has legislative enactment.”

Fosdick and Scott asserted that 3.2 beer is “non-intoxicating” and should be available virtually everywhere. Wines under 10-12% ABV should have the same off-premise treatment, but should be more strictly controlled on-premise.

The authors much preferred state control to any license system. State control, they argue, takes out the profit motive, would not stimulate sales and would strictly control all sales of any alcohol higher than 3.2% beer and light wines, as well as all advertising. Indeed, Fosdick and Scott showed a level of faith in government competence that few would share in this day and age. But any license system a state might adopt, they suggest, must prevent any tied house arrangement that would place the retailer “under obligation to a particular distiller or brewer,” they advised. Not surprisingly, they did not foresee a time when suppliers might feel obligated to large retail chains.

A license system should also limit the number “and character” of outlets and hours of sale as well as prohibit credit or any kind of reduced prices. Advertising “should, where possible, be rigidly restricted or forbidden.” Again, 3.2 beer would be exempt from the ad rules. A license system, in their view, not only preserves the profit motive, but also increases the role of politics and political favoritism. That is incompatible with temperance education since private industry would inevitably strive to “stimulate demand” on their own and through “aggressive tactics in its own defense” via trade associations and other methods.

All tax revenues should go to general funds; Fosdick and Scott argued against any earmarking for any purposes, including temperance education. States should not levy their own excise taxes, to prevent a patchwork that would encourage “tax chaos.” Excise taxes are regressive, Fosdick and Scott recognized, so a
“considerable part” of total alcohol tax should be on
the manufacturers and retailers in “such a form that it
cannot be shifted readily to the consumer.” Hence
they suggest taxes on net profits, in the range of 50%.

Just how relevant the study is to modern alcohol poli-
cy will vary widely by who you are, what you sell and
what you drink. For those who support (extremely)
strict state control, barely regulated availability of only
the lightest of beer and wines (very much at the ex-
pense of other adult beverages) and relatively modest
excise taxes, Fosdick and Scott’s blueprint might work.
Public health advocates would embrace the strict con-
trols on availability and marketing, as well as the killing of profits, but would reject some of the tax policy.
The concerns with ending bootlegging and its attendant
crime/corruption and the evils of the saloon cul-
ture are certainly understandable in retrospect, but not terribly relevant today. Finally, for anyone who
doesn’t think the state should be in the alcohol busi-
ness, or who would like to buy a craft beer or liquor
drink in a bar, not to mention make a buck off the sale
of alcohol beverages anywhere, Fosdick and Scott’s blueprint is a non-starter. Ref 2

Alcohol’s Impact on Fatty Liver Disease and
Headaches Overstated

Research into alcohol’s effect on developing fatty liver
disease or suffering from migraine headaches was reviewed recently by Boston University’s Alcohol Forum, which includes Dr. Curtis Ellison, a leading alcohol researcher and proponent of the notion that moderate drinking can be part of a healthy lifestyle. For both ailments, participants concluded that research indicates alcohol is not as much of a factor in causing the problems as previously thought, and in fact, moderate alcohol consumption may help alleviate them. Alcohol has long been considered a “major cause” of fatty liver disease, but recent studies have actually “suggested that moderate alcohol consumption is protective” against it, noted the Forum. They reviewed a new study of nearly 10,000 men in Japan. Similar to recent data, “our observations suggest that alcohol consumption plays a protective role against FL in men, and consistent alcohol consumption may contribute to this favorable effect,” concluded authors. Drinkers were classified as being heavy drinkers (3.5%); moderate drinkers (39.1%); light drinkers (45.9%) or non-drinkers (11.4%). The results indicated that the prevalence of FL displayed a ‘U-shaped curve’ across the categories of daily alcohol consumption.” While fatty liver was “associated positively with increased body mass index and other obesity-related diseases,” the “most striking finding was an inverse association between the frequency of alcohol consumption and the risk of fatty liver.” Also, as part of this analysis, “never drinkers were evaluated separately from former drinkers, and a “high percentage of [them] (38.6%) had ultrasonic evidence of fatty liver.”

Migraine headaches, long believed to be triggered by alcohol consumption, were also recently investigated by the Alcohol Forum. Recent studies on migraines indicate that “reports overestimate the role of alcohol, as well as other foods, in the triggering of migraine.” Many “compounds in food and beverages” have “been implicated” as a cause of migraine headaches, and people who suffer them have been instructed to avoid alcohol. But that may not be necessary. BU Forum responders cited one study that found “only a small percentage of patients” was able to rid themselves of headaches “simply by excluding those foods.” They noted “epidemiological studies are pointing out that genetic factors may be an underlying cause,” instead of food/bev compounds.

Also cited: the PAMINA study in 2007, which followed 327 “migraineurs” for 3 months and, “found no evidence that alcohol drinking was a trigger.” In fact, that study “even found that beer consumption decreased the risk of a migraine attack during the following day.” In the PAMINA study, “menstruation had the most prominent effect,” increasing the possibility of developing a migraine by almost 96%. No other factor increased the risk of migraine by more than 35%. One Forum reviewer noted people who suffer migraines “have a higher incidence of cardiovascular disease, and it would seem that migraineurs might reap an enhanced benefit from moderate wine/alcohol consumption.” Another reviewer concluded “it would appear reasonable for migraine patients, with their informed consent and desire to consume alcohol in a healthy and responsible matter, be allowed to ‘try’ moderate drinking and report back to their physician as to whether it is tolerated or not.” Ref 3

Cheers, Eric

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