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# Differences in Alcohol Brand Consumption between Underage Youth and Adults – United States, 2012

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### Abstract

**Background**—The alcohol brand preferences of U.S. underage drinkers have recently been identified, but it is not known whether youth are simply mimicking adult brand choices or whether other factors are impacting their preferences. This study is the first to compare the alcohol brand preferences of underage drinkers and adults.

**Methods**—We conducted a cross-sectional assessment of youth and adult alcohol brand preferences. A 2012 internet-based survey of a nationally representative sample of 1,032 underage drinkers, ages 13–20, was used to determine the prevalence of past 30-day consumption for each of 898 alcohol brands, and each brand's youth market share, based on the total number of standard drinks consumed. Data on the brand-specific prevalence of past 30-day or past 7-day consumption among older youth (ages 18–20), adults (ages 21+), and young adults (ages 21–34) was obtained from Gfk MRI's Survey of the Adult Consumer for the years 2010–12. Overall market shares for each brand, also measured by the total number of standard drinks consumed, were estimated from national data compiled by Impact Databank for the year 2010.

**Results**—Although most alcohol brands popular among underage drinkers were also popular among adult drinkers, there were several brands that appeared to be disproportionately consumed by youth.

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All authors contributed towards the research conception and design, interpretation of results, writing, and revision of the manuscript. Michael Siegel, Kelsey Chen, Joshua Ostroff, Craig S. Ross, and David H. Jernigan collected the data. Michael Siegel and Kelsey Chen analyzed the data.

**Conclusions**—This paper provides preliminary evidence that youth do not merely mimic the alcohol brand choices of adults. Further research using data derived from fully comparable data sources is necessary to confirm this finding.

### Keywords

Adolescents; alcohol; alcohol brands; alcohol use; youth

### INTRODUCTION

Underage drinking is a major public health problem in the United States, with more than 70% of high school students having consumed alcohol and about 22% having engaged in heavy episodic drinking. <sup>1,2</sup> Each year, underage drinking results in approximately 4,600 deaths and estimated financial costs of \$27 billion.<sup>3</sup>

Recently, to advance our understanding of youth drinking patterns, Siegel et al. surveyed a nationally representative sample of underage drinkers, ages 13–20, to determine which alcohol brands they consumed.<sup>4</sup> They reported the top 25 alcohol brands identified by these youth, as assessed by prevalence of past 30-day consumption and volume-based market share.<sup>4</sup> However, without examining the brand-specific drinking patterns of adults—information not reported in that paper – it is impossible to assess whether youth are simply mimicking the brand choices of adults or whether other factors, such as alcohol advertising, may be impacting their brand preferences.

Alcohol companies could refute allegations that their advertising influences youth to consume their brands by arguing that underage drinkers are adopting the brand choices modeled by their parents or by young or other adults and that marketing therefore plays no role. At present, however, no existing research has compared youth and adult brand preferences. Such research could help determine whether there are "youth-oriented" alcohol brands, meaning brands that are preferentially—and disproportionately—consumed by underage youth. While prompting further studies on the role of alcohol marketing in underage drinking, such research could also show public health practitioners which alcohol brands are particularly problematic and therefore might be the focus of future public health initiatives.

Using multiple information sources, this paper presents data to compare the brand-specific consumption patterns of underage youth and adults. This was done in two ways. First, the past 30-day or past 7-day consumption prevalence for different alcohol brands was examined, looking at underage (ages 18–20), adult (ages 21+), and young adult (ages 21–34) drinkers. Second, using a volume-based measure of market share (number of standard drinks consumed), each brand's market share among underage youth was compared against its estimated share of the overall U.S. market.

# **METHODS**

### **Design Overview**

Three different data sources were used to estimate youth, adult, and overall consumption of alcohol by brand: (1) a 2012 internet-based survey of a nationally representative sample of 1,032 underage drinkers, ages 13–20, was used to determine the prevalence of past 30-day consumption for each of 898 alcohol brands, as well as each brand's youth market share, based on the total number of standard drinks consumed during that time period<sup>4</sup>; (2) data on the brand-specific prevalence of past 30-day or past 7-day consumption among older youth (ages 18–20), adults (ages 21+), and young adults (ages 21–34) was obtained from Gfk MRI's Survey of the Adult Consumer for the years 2010–12<sup>5</sup>; and (3) overall market shares for each brand, also measured by the total number of standard drinks consumed, were estimated from national data compiled by Impact Databank for the year 2010.<sup>6–8</sup>

# **Brand-specific Alcohol Consumption among Underage Drinkers**

The Youth Alcohol Brand Survey's methodology has been reported in detail elsewhere.<sup>4</sup> Briefly, a pre-recruited internet panel maintained by Knowledge Networks<sup>9</sup> (Palo Alto, CA) was used to obtain a nationally representative sample of 1,032 underage youths, ages 13–20, who had consumed at least one drink of alcohol in the past 30 days. An online survey was used to assess which brands of alcohol the respondents had consumed during the past 30 days, the number of days that respondents had consumed each brand and the typical number of drinks of that brand they consumed on those days.

**Youth sample**—The 18- to 20-year-old panelists were sent an email invitation to participate in the survey, while the 13- to 17-year-old respondents were identified by asking adult panelists to indicate whether they had any children in this age group. Potential respondents who agreed to participate in the survey were emailed a link to a secure survey web site. A screening questionnaire ascertained whether potential respondents had consumed alcohol in the past 30 days. Those who reported doing so were then directed to a consent form and then to the survey. This protocol was approved by the Institutional Review Board of the Boston University Medical Center. For the older youth sample (ages 18–20), the overall response rate was 43.4%. For the younger youth sample (ages 13–17), the overall response rate was 44.4%.

**Youth Alcohol Brand Survey**—The internet-based survey instrument inquired about past 30-day consumption of 898 brands of alcohol within 16 alcoholic beverage types: 306 table wines, 132 beers, 86 vodkas, 77 cordials/liqueurs, 62 flavored alcoholic beverages (FABs), 54 rums, 33 tequilas, 29 whiskeys, 27 gins, 25 scotches, 23 bourbons, 15 brandies, 10 spirits-based energy drinks, 9 cognacs, 5 low-end fortified wines, and 5 grain alcohols.

The definition of a "drink" was based on the NIAAA definition of a "standard drink," which is a drink size that contains 14 grams of pure alcohol. <sup>10</sup> Thus, based on the average alcohol content of different alcoholic beverage types, a drink was defined as a 12-ounce can or bottle of beer; a 5-ounce glass of wine or champagne; 4 ounces of low-end fortified wine; an 8.5-ounce flavored alcoholic beverage; an 8-ounce alcohol energy drink; a 12-ounce wine

cooler; 8.5 ounces of malt liquor; 1.5 ounces of liquor (spirits or hard alcohol), whether in a mixed drink or as a shot; 2.5 ounces of cordials or liqueurs, whether in a mixed drink, a coffee drink, or consumed on their own; and 1 ounce of grain alcohol, whether in a mixed drink, punch, or as a shot.

Youth consumption measures: The prevalence of past 30-day consumption of each alcohol brand was defined as the percentage of respondents who reported having consumed that brand in the past 30 days. A brand's volume-based market share (referred to hereafter simply as "market share") was defined as the percentage of the total drinks consumed during the past 30 days by all respondents combined that was attributable to that brand. To estimate the number of brand-specific drinks consumed by individual respondents, the number of days they reported drinking that brand was multiplied by the typical number of drinks of that brand they reported consuming on those days. For all respondents combined, the total number of drinks for each brand and then the total number of drinks across all brands were calculated. In calculating the market shares, alcoholic beverages were included that were not in our list of 898 brands and therefore reported as "Other." However, the total market share for these brands was only 0.7%.

Any brand-specific reports that exceeded the 99<sup>th</sup> percentile for maximum number of drinks per day, which was 20, were recoded (i.e., winsorized) as 20. Differences in estimated market shares were similar with and without winsorization; the two lists of top 25 brands by market share were the same.

<u>Weighting procedures:</u> Knowledge Networks applied statistical weighting adjustments to account for selection probability, non-response to panel recruitment, and panel attrition. The company also made post-stratification adjustments—based on demographic distributions from the Current Population Survey (CPS) —for gender, age, race/ethnicity, census region, household income, home ownership status, metropolitan area, and household size to make the data nationally representative.

# Prevalence of Past 30-day or Past 7-day Alcohol Brand Consumption among Underage Youth, Adults, and Young Adults

Brand-specific prevalence data for underage youth (ages 18–20), adults (ages 21+), and young adults (ages 21–34) was obtained from Gfk MRI's (New York, NY) Survey of the Adult Consumer, which was a written, self-administered survey given to a representative sample of approximately 13,000 U.S. adults.<sup>5</sup> The survey, which asks about a wide range of consumer products, inquires about past 6-month and past 30-day consumption of 17 flavored alcoholic beverage brands and 132 spirits brands, and about past 6-month and past 7-day consumption of 90 beer brands and 81 wine brands. For flavored alcoholic beverages and spirits, the data on past 30-day consumption were used, and for beer and wine, the data on past 7-day consumption.

The survey is conducted in seven-month waves. The data from four overlapping waves were used: March 2010 through October 2010, September 2010 through April 2011, March 2011 through October 2011, and September 2011 through March 2012. Combining these waves increased the sample size, thus providing more stable prevalence estimates, especially for

the less popular brands. The combined sample size in these four waves was 643 for underage drinkers (ages 18–20), 31,629 for adult drinkers (ages 21+), and 7,115 for young adult drinkers (ages 21–34).

#### **Overall Volume-based Market Share**

Impact Databank (New York, NY) issues annual reports of the total volume of wholesale shipments for the top 50 beer brands, top 200 spirits brands, and top 100 wine brands in the U.S. It is important to emphasize that these data relate to volume depletions at the wholesale level and not to any measure of actual retail sales or consumption. The most recent set of reports, issued in 2011, includes data through 2010.<sup>6–8</sup> The 2010 report was used to estimate the overall volume-based market share for each of the 350 listed brands.

For each alcohol brand, Impact Databank reports the annual volume of wholesale shipments, measured in millions of barrels for beer, thousands of nine-liter cases for spirits and wine, or thousands of 2.25 gallon cases for flavored alcoholic beverages. To determine each brand's volume-based market share, these reported figures were converted to gallons. Next, the number of standard drinks per gallon was estimated for each brand by using the same definition employed in the Youth Alcohol Brand Survey—i.e., one standard drink equals 14 grams of pure alcohol. To do this, the number of gallons was multiplied by 128 to convert to ounces and then divided by the number of ounces per standard drink (8.0 ounces for beer, 1.5 ounces for spirits, 8.5 ounces for flavored alcoholic beverages, and 5.0 ounces for wine). Finally, to estimate market shares, the number of standard drinks consumed for each alcohol brand was divided by the total number of standard drinks for all of the alcohol brands combined.

<u>Validity check:</u> Because wholesale shipments might not reflect actual consumption, the estimates of total volume consumed in 2010 were compared with estimates reported by the National Institute on Alcohol Abuse and Alcoholism's (NIAAA) Alcohol Epidemiologic Data System (AEDS). <sup>11</sup> The AEDS compiles alcoholic beverage sales data, organized by beverage type, from each of the states and the District of Columbia. For 2010, AEDS obtained data from beverage sales or tax reports from 33 states for beer, 33 states for wine, and 27 states for spirits, while information for the remaining states came from alcohol industry shipment data. <sup>11</sup>

The 2010 estimates derived using Impact Databank's data matched what AEDS reported. The estimate of total beer sales in 2010 based on the Impact Databank report was 6.30 billion gallons, compared to 6.34 billion gallons according to AEDS, a difference of 0.6%. The estimate of total spirits sales in 2010 was 458.6 million gallons, compared to 455.3 million gallons according to AEDS, a difference of 0.7%. The estimate of total wine sales in 2010 was 732.1 million gallons, compared to 713.3 million gallons according to AEDS, a difference of 2.6%. Finally, the estimate of total alcohol sales in 2010 was 7.49 billion gallons, compared to 7.51 billion gallons according to AEDS, a difference of 0.3%.

### **Data Analysis**

The Gfk MRI survey report stated the prevalence of past 30-day (flavored alcoholic beverages and spirits) or past 7-day (beer and wine) consumption of each alcohol brand. These data were organized by age group, which allowed a comparison between the prevalence rates for adults and underage youth (and for young adults and underage youth). To do this, a "prevalence ratio" was computed for each brand, calculated as the ratio of the prevalence of past 30-day (or past 7-day) consumption among underage youth to the corresponding prevalence among adults (or young adults)

As noted, findings from the Youth Alcohol Brand Survey were used to calculate each brand's market share among underage youth, based on the total number of standard drinks consumed across the entire sample. Each brand's overall market share was also calculated, based on the 2010 shipment data reported by Impact Databank. To compare these two sets of figures, a "market share ratio" was computed for each brand, calculated as the ratio of the brand's market share among underage youth to the brand's corresponding overall market share

### **RESULTS**

Table 1 shows the top 25 brands consumed by underage youth, based on the percentage of all respondents who reported consuming each brand on the Youth Alcohol Brand Survey. The table also shows the underage youth (ages 18–20)/adult (21+) and underage youth/young adult (21–34) prevalence ratios for these brands, based on data from the Gfk MRI Survey of the Adult Consumer. The brands with the top five underage youth/adult prevalence ratios were Keystone Light beer (3.5), Bacardi malt beverages (2.2), Malibu rum (2.2), Captain Morgan rum (2.1), and Smirnoff malt beverages (2.0). The brands with the top five underage youth/young adult prevalence ratios were Keystone Light beer (1.8), Malibu rum (1.6), Corona Light beer (1.5), Smirnoff vodka (1.5), and Bud Light, Captain Morgan rum, Heineken, and Bacardi malt beverages (1.4).

Table 2 shows the top 25 brands by youth prevalence from the internet-based Youth Alcohol Brand Survey, each brand's overall market share estimated from Impact Databank, and the computed youth/overall market share ratio. Brands with the top five market share ratios were Corona Light beer (9.3), Bacardi malt beverages (8.0), Smirnoff malt beverages (6.7), UV vodka (4.9), and Mike's malt beverages (4.4).

Table 3 lists all brands, in descending order of youth prevalence, that met the following criteria: (1) youth prevalence > 2.0%; (2) youth market share > 0.4%; (3) underage youth/adult prevalence ratio > 1.2; and (4) youth/overall market share ratio > 1.5. These 15 brands include six spirits, five beers, and four FABs. The top four brands - Smirnoff malt beverages, Jack Daniel's bourbon, Mike's malt beverages, and Absolut vodka - had a youth prevalence greater than 10%, a youth market share greater than 1.2%, an underage youth/adult prevalence ratio of at least 1.2, and a youth/overall market share ratio of at least 1.7.

# DISCUSSION

To the best of our knowledge, this is the first paper to compare brand-specific consumption of alcohol between underage youth and adults. This study found many alcohol brands that have both a high proportion of youth consumption and disproportionate consumption by underage youth compared to adults, whether measured by prevalence or market share. The popularity of these "youth-oriented" brands cannot be explained solely by exposure to adult consumption patterns.

Although this study was not designed to identify what other factors influence youth brand preference, there are a number of possibilities. First, several brands listed in Table 3 are among the less expensive brands on the market. According to a recent pricing study, <sup>12</sup> four of these brands are priced at less than \$1.25 per ounce of pure alcohol: Keystone Light, Burnett's vodka, Bud Ice, and Natural Ice. On the other hand, some of the brands in Table 3 are among the more expensive brands on the market, such as Patron tequila (\$4.14 per ounce of pure alcohol) and Grey Goose vodka (\$2.62 per ounce of pure alcohol).

A second possibility is that youth are drawn to sweet or flavored alcohol brands – that is, flavored alcoholic beverages and flavored spirits such as Malibu rum. However, Table 3 also includes several brands of "hard" liquor such as Jack Daniel's bourbon, Absolut vodka, Grey Goose vodka, and Patron tequila.

A third possibility is that alcohol marketing influences youth brand preferences. Of the 15 brands in Table 3, seven were identified by the Center on Alcohol Marketing and Youth as being among the leading alcohol brands that overexposed youth to their advertising in magazines or on television in 2006.<sup>13</sup>

The findings of this paper, while suggestive, are not sufficient to identify the reasons for differences in youth and adult alcohol brand preferences. To fully assess the potential role of adult preferences, price, taste, and marketing in explaining youth brand preferences, a more sophisticated study using a multivariate analytic approach is needed.

This study has several limitations. First, the sample size of underage (ages 18–20) drinkers in the Gfk MRI survey, even with four waves of combined data, was only 643. Thus, prevalence estimates for this age group must be interpreted cautiously, especially for the less popular brands. In considering this limitation, we chose only to report estimates for the top 25 brands.

Second, the brand-specific estimates of youth market share and overall market share come from very different data sources. The former, derived from the Youth Alcohol Brand Survey, measures self-reported consumption volumes, whereas the latter, derived from Impact Databank data, measures the volume of alcohol sold into distribution by manufacturers. These measures may not be comparable since wholesale shipment volumes may be influenced by the dynamics of distribution buffering and stockpiling and fluctuations in demand. Our analysis assumes an equilibrium in the supply chain, meaning that there are no changes over time in the amount of distribution buffering and stockpiling, product demand is constant over time, and all shipped products are consumed within the year.

Third, the youth brand preference data are from the first half of 2012, whereas the adult prevalence data include the years 2010–2012 and the overall market share data are from 2010. The adult prevalence data required samples from multiple years in order to derive stable estimates for brands with low numbers of consumers. Market share data from 2010 were used because those are the most recent available data.

Fourth, brand-level consumption estimates from the MRI Survey of the Adult Consumer are not entirely consistent with sales estimates from Impact Databank. The stability of both measures is uncertain, and it is therefore unclear whether our reported prevalence ratios or market share ratios are the more reliable measures.

Because of the differences in data sources, data collection methods, timing, and stability of youth and adult brand consumption estimates, our ability to draw conclusions about differences in adult and youth brand preferences is limited. Therefore, these results should be considered as a preliminary analysis of differences between youth and adult alcohol brand consumption patterns. There is a clear need to ascertain alcohol brand consumption patterns among underage youth and adults in a single survey that uses an identical method for measuring brand-specific consumption among these two sub-populations, with a sufficient oversampling of youth to obtain stable estimates.

A fifth limitation of the paper is the 43% survey response rate, which introduces the possibility of selection bias. <sup>14</sup> Because the sample of 18–20 year-olds drew from existing Knowledge Networks panelists, we were able to compare 18–20 year-old respondents and non-respondents on basic demographic factors to help assess the nature of potential non-response bias, using a chi-square test to assess the significance of observed differences. The non-respondents were slightly older (p<0.05), but similar in gender (p=0.41). Non-respondents were more likely to be Black (p<0.0001), to come from lower income households (p<0.01), and not to have internet access (p<0.0001). There were no substantial differences by region (p=0.11). Therefore, despite our use of analytic weighting, it is possible that our youth brand preference estimates do not fully represent the brand choices of Black and lower income youth, an issue that might further affect the comparability of our youth and adult brand consumption estimates.

Finally, it is possible that respondents either exaggerated or underreported their drinking behavior, though it should be pointed out that research long ago established the validity of substance use surveys completed under conditions of anonymity. <sup>15,16</sup> Quality control procedures that we used to help verify the consistency of responses are described elsewhere. <sup>14</sup>

Despite these limitations, our findings represent an important attempt – and the only existing one of which we are aware – to compare alcohol brand consumption patterns between underage youth and adults. These findings suggest that brand-specific youth alcohol consumption patterns do not necessarily mimic those of adult drinkers. There are a number of brands that were found to be disproportionately preferred by underage youth compared to adults. Further research is necessary to confirm these findings using fully comparable data

sources and to identify the factors that are influencing any confirmed differences between youth and adult alcohol brand preferences.

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TABLE 1

Prevalence of Recent Consumption among Older Youth (ages 18-20), Adult (ages 21+), and Young Adult (ages 21-34) Drinkers for the Top 25 Youth Brands<sup>a</sup>

Brand (Past 30-day youth prevalence) $^{b}$	Type	Age 18–20 prevalence <sup>c</sup>	Age 21+ prevalence <sup>c</sup>	Age 21–34 prevalence <sup>c</sup>	Prevalence ratio, 18–20 vs. $21+d$	Prevalence ratio, 18–20 vs. 21–34 <i>d</i>
Bud Light (27.9%)	Beer	22.9%	12.0%	16.2%	1.9	1.4
Smirnoff Malt Beverages (17.0%)	FAB	12.2%	6.1%	10.3%	2.0	1.2
Budweiser (14.6%)	Beer	12.2%	9.5%	10.6%	1.3	1.1
Smirnoff (12.7%)	Vodka	5.8%	3.0%	3.8%	1.9	1.5
Coors Light (12.7%)	Beer	5.5%	4.9%	5.2%	1.1	1.1
Jack Daniel's (11.5%)	Bourbon	4.9%	4.0%	5.7%	1.2	6.0
Corona Extra (11.3%)	Beer	5.6%	4.4%	5.8%	1.3	1.0
Mike's Malt Beverages (10.8%)	FAB	8.8%	5.2%	7.3%	1.7	1.2
Captain Morgan (10.4%)	Rum	6.7%	4.6%	7.0%	2.1	1.4
Absolut (10.1%)	Vodka	8.6	5.8%	8.0%	1.7	1.2
Heineken (9.7%)	Beer	6.3%	3.8%	4.6%	1.7	1.4
Bacardi (9.3%)	Rum	6.2%	6.4%	6.7%	1.0	6.0
Blue Moon (8.2%)	Beer	3.0%	3.7%	5.8%	0.8	0.5
Bacardi Malt Beverages (8.0%)	FAB	8.0%	3.6%	5.6%	2.2	1.4
Jose Cuervo (8.0%)	Tequila	%9.9	5.3%	6.3%	1.2	1.0
Miller Lite (7.5%)	Beer	3.4%	4.2%	4.9%	0.8	0.7
Grey Goose (6.7%)	Vodka	8.6%	4.7%	7.1%	1.8	1.2
Malibu (6.3%)	Rum	4.3%	1.9%	2.6%	2.2	1.6
Four Loko (6.0%)	FAB	N/A	N/A	N/A	N/A	N/A
Keystone Light (6.0%)	Beer	2.0%	9.0	1.1%	3.5	1.8
Hennessy (5.7%)	Cognac	3.3%	2.3%	3.4%	1.5	1.0
Patron (5.5%)	Tequila	5.4%	3.6%	5.9%	1.5	6.0
Corona Extra Light (5.2%)	Beer	3.5%	2.1%	2.3%	1.7	1.5
Baileys Irish Cream (5.2%)	Cordials/Liqueurs	1.2%	2.6%	1.8%	0.5	0.7
UV (5.1%)	Vodka	N/A	N/A	N/A	N/A	N/A

Note. N/A = Not available (i.e., not measured in the MRI Survey of the Adult Consumer). FAB = Flavored alcoholic beverages.

<sup>a</sup>Top 25 brands, according to 30-day prevalence among youth drinkers, ages 13-20, based on the Youth Alcohol Brand Survey, 2012

 $<sup>^{</sup>b}$  Prevalence of past 30-day consumption among youth drinkers, ages 13–20, based on Youth Alcohol Brand Survey, 2012

<sup>&</sup>lt;sup>c</sup> Prevalence of past 30-day consumption (flavored alcoholic beverages, spirits) or past 7-day consumption (beer, wine) among drinkers ages 18–20, 21+, or 21–34 years, based on the MRI Survey of the Adult Consumer, 2010–2012

datio of consumption prevalence among youth drinkers (ages 18–20) to consumption prevalence among adult (21+) or young adult (21–34) drinkers, based on MRI Survey of the Adult Consumer, 2010–

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**TABLE 2** 

Youth Market Shares and Overall Market Shares by Volume for the Top 25 Youth Brands<sup>a</sup>

Brand	Type	Youth prevalence <sup>b</sup>	Youth market share <sup>c</sup>	Overall market share <sup>d</sup>	Market share ratio <sup>e</sup>
Bud Light	Beer	27.9%	6.4	10.8	9.0
Smirnoff Malt Beverages	FAB	17.0%	2.9	0.4	6.7
Budweiser	Beer	14.6%	3.0	4.8	9.0
Smimoff	Vodka	12.7%	1.4	1.5	6.0
Coors Light	Beer	12.7%	2.0	4.5	0.4
Jack Daniel's	Bourbon	11.5%	1.6	0.8	2.0
Corona Extra	Beer	11.3%	2.0	1.8	1.1
Mike's Malt Beverages	FAB	10.8%	1.9	0.4	4.4
Captain Morgan	Rum	10.4%	1.4	1.0	1.4
Absolut	Vodka	10.1%	1.3	0.7	1.7
Heineken	Beer	9.7%	1.8	1.1	1.6
Bacardi	Rum	9.3%	1.3	1.5	0.8
Blue Moon	Beer	8.2%	1.0	0.4	2.6
Bacardi Malt Beverages	FAB	8.0%	6.0	0.1	8.0
Jose Cuervo	Tequila	8.0%	6.0	9.0	1.5
Miller Lite	Beer	7.5%	2.3	4.1	0.6
Grey Goose	Vodka	6.7%	1.8	0.5	3.2
Malibu	Rum	6.3%	7.0	0.3	2.6
Four Loko	FAB	%0.9	6.0	N/A	N/A
Keystone Light	Beer	%0.9	2.0	1.2	1.6
Hennessy	Cognac	5.7%	0.4	0.3	1.2
Patron	Tequila	5.5%	9.0	0.3	2.1
Corona Extra Light	Beer	5.2%	2.2	0.2	9.3
Baileys Irish Cream	Cordials/Liqueurs	5.2%	8.0	0.2	3.9
UV	Vodka	5.1%	8.0	0.2	4.9

Note. N/A= not available (i.e., not reported by Impact Databank). FAB = Flavored alcoholic beverages.

<sup>&</sup>lt;sup>a</sup>Top 25 brands, according to 30-day prevalence among youth drinkers, ages 13-20, based on the Youth Alcohol Brand Survey, 2012

 $<sup>^{</sup>b}$  Prevalence of past 30-day consumption among youth drinkers, ages 13–20, based on the Youth Alcohol Brand Survey, 2012

<sup>C</sup>Market share by volume (in terms of number of standard drinks consumed in the past 30 days) for youth drinkers, ages 13–20, based on the Youth Alcohol Brand Survey, 2012

doverall market share by volume (in terms of number of standard drinks for all drinkers), based on Impact Databank reports of wholesale alcohol shipments, 2010

 $^{\boldsymbol{\rho}}$ Ratio of youth market share to overall market share

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TABLE 3

Top Brands in Terms of Underage Youth Consumption and Disproportionate Underage Youth Consumption<sup>a</sup>

Brand	Type	Youth prevalence <sup>b</sup>	Youth market share <sup>c</sup>	Youth prevalence $^b$ Youth market share $^c$ Prevalence ratio, 18–20 vs. $21+^d$ Market share ratio $^e$	Market share ratio <sup>e</sup>
Smirnoff Malt Beverages	FAB	17.0	2.9	2.0	6.7
Jack Daniel's Whiskeys	Bourbon	11.5	1.6	1.2	2.0
Mike's Malt Beverages	FAB	10.8	1.9	1.7	4.4
Absolut Vodkas	Vodka	10.1	1.3	1.7	1.7
Heineken	Beer	7.6	1.8	1.7	1.6
Bacardi Malt Beverages	FAB	8.0	6.0	2.2	8.0
Grey Goose Vodkas	Vodka	6.7	1.8	1.8	3.2
Malibu Rums	Rum	6.3	0.7	2.2	2.6
Keystone Light	Beer	6.0	2.0	3.5	1.6
Patron Tequilas	Tequila	5.5	9.0	1.5	2.1
Corona Extra Light	Beer	5.2	2.2	1.7	9.3
Jack Daniel's Cocktails	FAB	4.4	1.0	1.3	43.8
Burnett's Vodkas	Vodka	3.3	0.5	1.9	1.9
Bud Ice	Beer	2.9	9.0	1.5	1.7
Natural Ice	Beer	2.2	1.6	1.7	2.3

Note. FAB = Flavored alcoholic beverages

alist of brands, ordered by 30-day prevalence among underage youth drinkers (Youth Alcohol Brand Survey, 2012), meeting the following criteria: (1) youth prevalence > 2.0%; (2) youth market share > 0.4%; (3) underage youth/adult prevalence ratio > 1.2; and (4) youth/overall market share ratio > 1.5

brevalence of past 30-day consumption among youth drinkers, ages 13–20, based on the Youth Alcohol Brand Survey, 2012

<sup>&</sup>lt;sup>C</sup>Market share by volume (in terms of number of standard drinks consumed in the past 30 days) for youth drinkers (ages 13–20), based on the Youth Alcohol Brand Survey, 2012

dratio of consumption prevalence among youth drinkers (ages 18–20) to consumption prevalence among adult drinkers (21+), based on the MRI Survey of the Adult Consumer, 2010–2012

e Ratio of youth market share (see footnote "c") to overall market share, based on Impact Databank's 2010 report on wholesale alcohol shipments