

# “Unwanted Profits” From Underage Drinking in the United States



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**GLOBAL ALCOHOL POLICY ALLIANCE CONFERENCE  
SEOUL, KOREA  
OCTOBER 8, 2013**

# Acknowledgments



Research reported in this publication was supported in part by The National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health under Award Number R01AA020309 and in part by Cooperative Agreement Number 5U58DP002027 from The Centers for Disease Control and Prevention.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the CDC.

# Introduction



- The alcohol beverage industry maintains that they have no interest in gaining profits from those who drink either illegally (underage) or at rates other than what is considered “moderate” (binge, heavy).
- We attempted to replicate previous research calculating youth expenditures on alcoholic beverages and take it a step further to break down the expenditures by brand.

# The Problem



- Alcohol is the number one drug problem among young people. (MTF)
- In 2011, 9.7 million U.S. young people ages 12-20 (25.1%) reported drinking in the past month, and 6.1 million reported binge drinking (15.8%). (NSDUH)
- Every day, 4,500 kids under age 16 start drinking. (NSDUH)
- Every year more than 4,700 people under age 21 die from alcohol-related causes. (CDC ARDI)
- The earlier young people begin drinking, the worse the consequences are likely to be.

# Consequences



- Young people who begin drinking before age 15 are five times more likely to develop alcohol problems later in life than those who wait until they are 21. (OSG)
- They are:
  - Four times more likely to develop alcohol dependence (Grant & Dawson, 1997)
  - Six times more likely to be in a physical fight after drinking;
  - More than six times more likely to be in a motor vehicle crash because of drinking;
  - Almost five times more likely to suffer from other unintentional injuries after drinking. (Hingson et al, 2009)

# Effects of Advertising



- At least 14 longitudinal studies have shown that exposure to alcohol advertising may increase likelihood that young people will start drinking or, if already drinking, will drink more. (Anderson, 2009)
- Each additional \$ spent on alcohol advertising increased drinking by 3% (Snyder, 2006)
- Ownership of promotional items (McClure, 2006)
- Exposure in movies, popular music (Hanewinkel, 2012; Slater & Henry, 2013)

# Importance of Monitoring at Brand Level



A small percentage of alcohol brands is responsible for half of youth overexposure

Medium	Year	Total number of brands advertising	Brands responsible for half of youth overexposure
Magazines	2008	333	16 (5%)
Television	2009	151	12 (8%)
Radio	2009	77	3 (4%)

# What are these brands?



- **TV:**
  - **Miller Lite, Coors Light, Captain Morgan Rums, Bud Light, Samuel Adams Boston Lager, Miller Genuine Draft Light Beer, Crown Royal Whiskey, Corona Extra Beer, Disaronno Originale Amaretto, Smirnoff Vodkas, Miller Chill, Labatt Blue Light Beer**
- **Magazines:**
  - Patron Silver Tequila, Absolut Vodkas, Kahlua Liqueurs, Ketel One Vodka, Jim Beam Bourbon Whiskey, Bud Light Lime, Heineken Beer, Jack Daniel's Whiskey, Corona Extra Beer, Paul Masson Grande Amber Brandy, Miller Chill, Budweiser Beer, Miller Genuine Draft, Modelo Especial Beer, **Coors Light, Miller Light**
- **Radio:**
  - **Bud Light, Miller Lite, Coors Light**



# Addressing alcohol's appeal to youth



- Alcohol Brand Research Among Underage Youth (ABRAND) study:
  - ✦ National Institute on Alcohol Abuse and Alcoholism grant
  - ✦ Joint venture between CAMY and Boston University School of Public Health
  - ✦ Grant to study youth brand preference using internet panel; tie these findings to CAMY data on youth exposure to alcohol advertising
  - ✦ Policy implications: draw attention to particularly dangerous or attractive-to-youth products

# ABRAND – Sample Population



- Recruited 1,031 youth ages 13-20 from existing internet panel who had consumed alcohol in past 30 days
- Asked about consumption of 898 different brands of alcohol

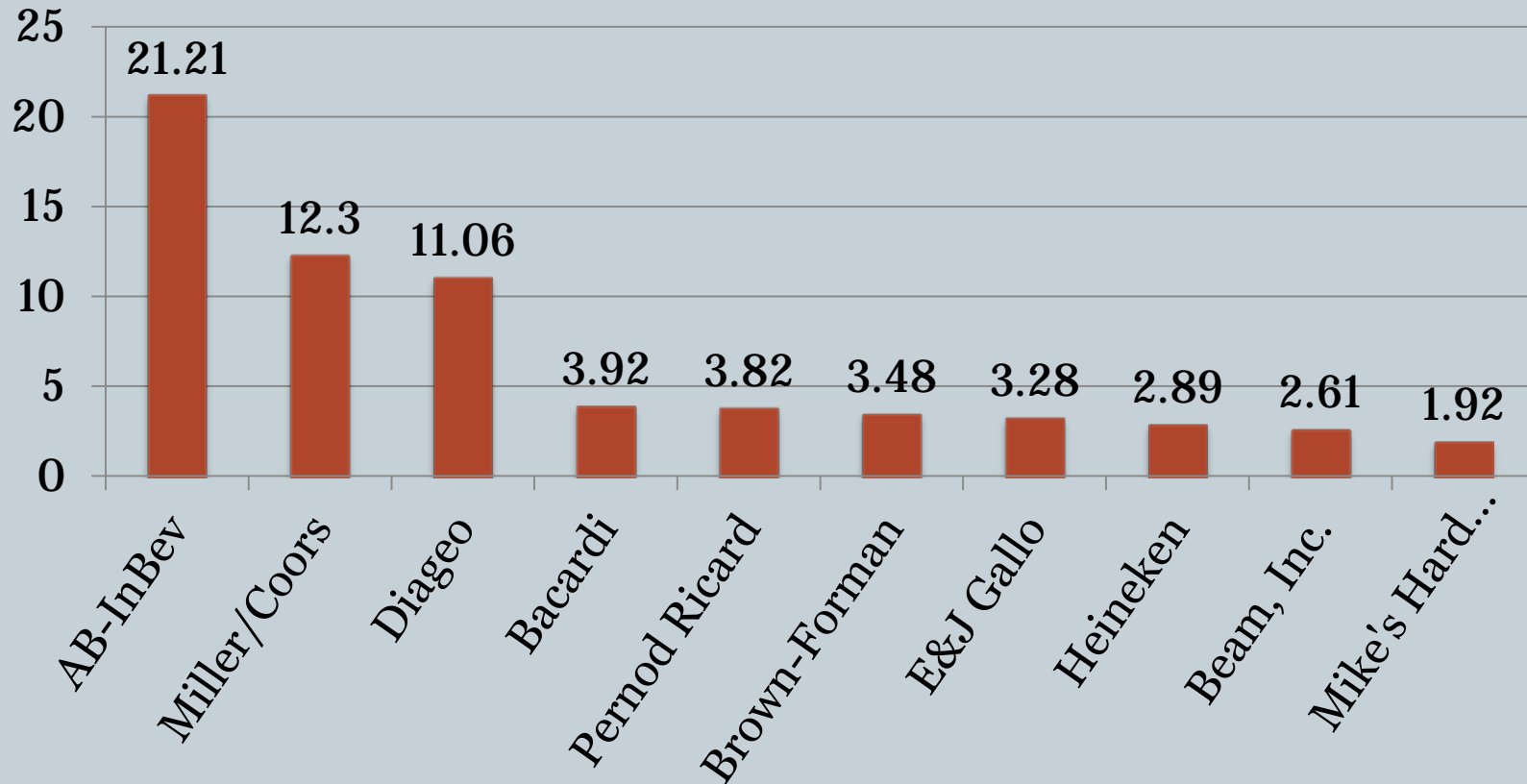
# ABRAND Results

## Top 10 Brands By Age

Rank	13-15 (%)	16-18 (%)	19-20 (%)
1	Bud Light (30.7)	Bud Light (24.6)	Bud Light (29.7)
2	Heineken (17.7)	Coors Light (12.5)	Smirnoff Malt Beverages (23.5)
3	Budweiser (14.3)	Mikes (12.2)	Smirnoff Vodkas (16.9)
4	Corona Extra (12.2)	Budweiser (11.9)	Jack Daniels Whiskeys (16.8)
5	Mikes (10.9)	Smirnoff Malt Beverages (10.5)	Budweiser (16.7)
6	Captain Morgan Rums (9.1)	Corona Extra (9.9)	Coors Light (14.7)
7	Smirnoff Malt Beverages (8.5)	Smirnoff Vodkas (9.6)	Absolut Vodkas (13.9)
8	Baileys Irish Cream Liqueurs (7.9)	Captain Morgan Rums (7.5)	Bacardi Rums (12.8)
9	Dailys Cocktails (7.9)	Heineken (7.4)	Captain Morgan Rums (12.8)
10	E&J Gallo Brandy (6.8)	Jose Cuervo Tequilas (7.4)	Corona Extra (12.1)

# Market Share

## Market Share for Top 10 Companies (%)



# Market Share



- These 10 companies represent 66.5% of the total market share
- The top 25 companies represent 82.1%
- Only a small subset represent most of the brands youth consume out of the 898 from the ABRAND survey



**CAN WE MEASURE YOUTH  
EXPENDITURES OR  
COMPANY PROFITS FROM  
UNDERAGE DRINKING BY  
BRAND?**

# Youth Expenditures on Tobacco



- DiFranza and Tye, *JAMA*, 1990 – “Who Profits from Tobacco Sales to Children?”
  - Determined that more than 3 million children under the age of 18 consumed 947 million packs of cigarettes and 26 million containers of smokeless tobacco a year
  - Accounted for sales of \$1.26 billion and \$221 million in profits

# Youth Expenditures For Alcohol



- Foster et al., *JAMA*, 2003 – “Alcohol Consumption and Expenditures for Underage Drinking and Adult Excessive Drinking”
  - Underage drinkers consumed 19.7% of alcohol in the US in 1999
  - Consumer expenditures of \$22.5 billion were attributed to underage drinking (out of \$116.2 billion total)
- Conduct analysis similar to Foster et al.
  - Incorporate the market share data from ABRAND



# Methods – Data Sources



- **National Survey on Drug Use and Health (NSDUH) – 2011**
  - Average drinking days in past 30 days
  - Average number of drinks per drinking day
  - Average total drinks per month
  - Proportion of current drinkers
- **2010 Census – population**
- **Impact, 2011 – brand and company information**
- **ABRAND survey – youth market share of each brand**

# Data Sources



- **NSDUH, 2011**
  - Ages 12-20
  - Current drinkers = 25.1%
- **Youth Risk Behavior Surveillance Survey, 2011**
  - 9<sup>th</sup> – 12<sup>th</sup> grades
  - Current drinkers = 38.7%
- **Monitoring the Future, 2011**
  - 8<sup>th</sup>, 10<sup>th</sup>, 12<sup>th</sup> grades
  - Current drinkers (12<sup>th</sup> graders) = 40%

# Questions About Drinking



- NSDUH questions – youth and adults
  - “Think specifically about the past 30 days – that is, since [date], up to and including today. During the past 30 days, on how many days did you drink one or more drinks of an alcoholic beverage?”
  - “On the X days that you drank during the past 30 days, how many drinks did you usually have?”

# Results



- **Current drinking**
  - 25.1% of youth report drinking on at least 1 day in the past 30 days
- **Amount of drinking**
  - Mean drinking days/month = 5.10
  - Mean number of drinks per drinking day = 4.67
  - 29.4 average drinks per month
- **Using 2010 census data**
  - 12-20 population X proportion of current drinkers X average drinks per month X 12 months
  - 3.5 billion drinks a year
- **Youth consumed 7.1% of total alcohol in 2011 (using the NSDUH survey)**

# Results



- Total consumer expenditures on beer, spirits, wine
  - \$184 billion
  - Determined from proportion of total drinks consumed per year and average cost per drink (Impact, DiLoreto et al.)
- Youth responsible for 6.0% of expenditures using this method = \$11.1 billion
  - Slightly less than the percentage of total drinks
    - ✦ Young people drinking lower cost beverages
    - ✦ Young people drinking less at bars and restaurants

# Results



- **Anheuser-Busch InBev**
  - Products include Bud Light, Budweiser, Natural Light, Busch Light
  - 21.2% of market share of youth drinking from ABRAND survey
  - Youth total share of expenditures = \$11.1 billion (of \$184 billion)
  - AB-InBev share = \$2.3 billion

# Results



- **MillerCoors**
  - Products include Coors, Miller Lite, Blue Moon, Steel Reserve
  - 12.3% of market share of youth drinking from ABRAND
  - MillerCoors share of youth spending = \$1.4 billion

# Results



- Diageo (11.06%) = \$1.2 billion
- Bacardi (3.92%) = \$434 million
- Pernod Ricard (3.82%) = \$422 million
- Brown-Forman (3.48%) = \$385 million
- E&J Gallo (3.28%) = \$363 million
- Heineken (2.89%) = \$320 million
- Beam, Inc. (2.61%) = \$289 million
- Mike's Hard Lemonade, Inc. (1.92%) = \$212 million
- **Top 10 total = \$7.4 billion**



# Case Studies



- **A-B InBev**
  - Revenues for 2011 in North America = \$15.3 million
  - Profit for 2011 in North America = \$3.9 million
  - Profit margin = 25.6%
  - Apply the profit margin to youth expenditures (\$2.3 billion)
    - ✦ \$588 million total profit to A-B InBev from underage drinking

# Case Studies



- **Diageo**
  - Products include Smirnoff Vodka and Malt Beverages, Captain Morgan Rum, Bailey's Irish Cream
  - Sales for North America = £3.85 million
  - Operating profit = £1.23
  - Operating profit margin = 32.0%
  - Apply profit margin to youth expenditures (\$1.2 billion)
    - ✦ \$384 million from operating profit to Diageo due to underage drinking

# Limitations



- Surveys self reported – underestimation
- NSDUH performed in home, not school
- Military, homeless, institutionalized not included
- YRBS current drinking proportion = 38.7% vs 25.1% from NSDUH
  - Adult current drinking rates similar on BRFSS and NSDUH
- Indexing – including binge drinking tends to increase monthly drinking estimates

# Implications



- **Reducing Underage Drinking: A Collective Responsibility** (National Research Council, Institute of Medicine, 2004)
  - Recommendation 7-1
    - ✦ “All segments of the alcohol industry that profit from underage drinking, inadvertently or otherwise, should join with other private and public partners to establish and fund an independent nonprofit foundation with the sole mission of reducing and preventing underage drinking.”
  - Recommended a target of 0.5% of gross revenues
    - ✦ Prorated according to share of underage market
  - Next steps

The Center on  
**Alcohol Marketing** and *Youth*



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