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The Impact of a 25 Cent-Per-Drink Alcohol Tax Increase: Who Pays the Tab?

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Abstract

Background—Excessive alcohol consumption causes 79,000 deaths annually in the U.S., shortening the lives of those who die by approximately 30 years. Although alcohol taxation is an effective measure to reduce excessive consumption and related harms, some argue that increasing alcohol taxes places an unfair economic burden on “responsible” drinkers and socially disadvantaged persons.

Purpose—To examine the impact of a hypothetical tax increase based on alcohol consumption and socio-demographic characteristics of current drinkers, individually and in aggregate.

Methods—Data from the 2008 Behavioral Risk Factor Surveillance System survey was analyzed from 2010–2011 to determine the net financial impact of a hypothetical 25 cent-per-drink tax increase on current drinkers in the U.S. Higher-risk drinkers were defined as those whose past-30 day consumption included binge drinking, heavy drinking, drinking in excess of the U.S. Dietary Guidelines, and alcohol-impaired driving.

Results—Of current drinkers in the U.S., 50.4% (or approximately 25% of the total U.S. population) were classified as higher-risk drinkers. The tax increase would result in a 9.2% reduction in alcohol consumption, including an 11.4% reduction in heavy drinking. Compared with lower-risk drinkers, higher-risk drinkers paid 4.7 times more in net increased annual per capita taxes, and paid 82.7% of net increased annual aggregate taxes. Lower-risk drinkers paid less than $30 in net increased taxes annually. In aggregate, groups who paid the most in net tax increases included those who were white, male, between the ages of 21 and 50, earning ≥$50,000 per year, employed, and had a college degree.

Conclusions—A 25 cent-per-drink alcohol tax increase would reduce excessive drinking, and higher-risk drinkers would pay the substantial majority of the net tax increase.

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Background

Excessive alcohol consumption is a leading cause of preventable death[1] attributed to approximately 79,000 deaths annually in the U.S., shortening the lives of those who die by an average of 30 years.[2] Drinking is also a major risk factor for a variety of adverse health outcomes, such as unintentional injuries, violence, unintended pregnancy, and cardiovascular disease.[3–7] Alcohol is also a major cause of social problems (e.g., child neglect, divorce), legal and criminal justice problems, and economic costs[4].

Increasing the price of alcohol through alcohol excise taxes is an effective means of reducing excessive drinking, and is considered the most important public health intervention to reduce alcohol-related harms.[8–10] A meta-analysis of 50 publications found that doubling the alcohol excise tax would reduce alcohol-related mortality by an average of 35%, traffic crash deaths by 11%, sexually transmitted disease by 6%, violence by 2%, and crime by 1.4%.[10] Furthermore, a comprehensive review found an inverse relationship between alcohol price and consumption, and determined that a 10% increase in alcohol prices would result in a 3% to 10% decrease in overall consumption.[9]

Despite strong evidence of public health benefit, there have been few recent alcohol tax increases and many initiatives to raise them have been defeated on the basis of arguments about the economic fairness of alcohol taxes. One argument against raising alcohol taxes is that such increases will place a large and unfair financial burden on “responsible” (i.e., lower-risk) drinkers. Also, there is concern about how much those with lower socio-economic status (i.e., racial and ethnic minorities, those with lower incomes, less education) would have to pay compared with other groups. To explore these issues further, data from the Behavioral Risk Factor Surveillance System (BRFSS) survey was analyzed to examine the effect of a hypothetical 25 cent-per-drink tax increase on U.S. adults who drink alcohol. The purpose of this study was to assess the net financial impact, both individually and in aggregate, of a hypothetical tax increase on the basis of alcohol consumption characteristics and socio-economic factors among current drinkers in the U.S.

Methods

Survey

Data for this study came from the 2008 BRFSS. A detailed overview of the BRFSS including survey methods and information on data weighting is available at http://www.cdc.gov/brfss/ and http://www.cdc.gov/brfss/technical_infodata/quality.htm. In brief, the BRFSS is a state-based random-digit-dial telephone survey of people aged 18 years and older that is overseen by the Centers for Disease Control and Prevention and conducted monthly in all states, the District of Columbia, and some territories. Analysis was limited to the 50 U.S. states. The 2008 BRFSS had a response rate of 53.3%. There were 411,736 total respondents, including 200,587 reporting alcohol consumption in the previous 30 days, who comprised the study population. BRFSS data were weighted on the basis of age, sex, and race/ethnicity to be representative of the U.S. population aged 18 years and older.

Measures

The BRFSS “core” (i.e., questions asked of all drinkers in all states) alcohol questions were used to assess drinking frequency and the average number of drinks consumed during drinking days during the past 30 days among current drinking U.S. adults aged 18 years and older. The core BRFSS also collects information on the frequency of binge drinking (i.e., consuming five or more drinks for men or four or more drinks for women per occasion in the past 30 days),[11] the greatest number of drinks consumed in the past 30 days, and alcohol

impaired driving (i.e., the number of times a person drove after having "perhaps too much to drink").

To determine average daily alcohol consumption by an individual, a participant's frequency of drinking days in the past 30 days was multiplied by their usual number of drinks consumed per drinking day and divided by 30. For binge drinkers, their average daily alcohol consumption was adjusted to account for self-reported estimates of binge drinking, using the indexing method originally described by Armor & Polich[12] and applied to the BRFSS data.[13] For this study, men reporting a maximum drink value of five or more, and women reporting a maximum drink value of four or more, were classified as binge drinkers.[11] Heavy drinking was defined as an average daily consumption of more than 2 drinks for men, or an average daily consumption of more than 1 drink for women.[2]

"Higher-risk" drinkers were defined as those with any of the following: drinking above U.S. Dietary Guidelines (defined as consumption during drinking days ≥3 drinks for men or ≥2 drinks for women)[14], binge drinking, alcohol impaired driving, or heavy drinking. "Lower-risk" drinkers were defined as those not meeting any of the four higher-risk criteria defined above.

Increasing the price of alcohol through a tax would decrease its consumption based on the price elasticity of demand for alcohol. The price elasticity of demand (−0.51) was obtained from a recent meta-analysis.[15] To determine the average price of a standard drink in the U.S., a weighted average of on and off-premises prices for beer, wine, and spirits was calculated[16] based on beverage-specific per capita consumption in the U.S. in 2007 (the most recent year for which data were available: 52.1% beer, 31.5% liquor, 16.4% wine[17]) and assuming that 75% of alcohol is purchased from off-premises establishments.[18,19] Assuming a 100% pass-through of the tax to the price paid by consumers, $0.25 constituted 18.1% of the average weighted price-per-drink ($1.38), yielding a 9.2% reduction in consumption. After factoring in the impact of the price increase on average daily consumption, annual alcohol consumption was calculated on a per capita and aggregate basis by multiplying the average number of drinks per day by 365.

The net tax increase was calculated by first determining the current amount of annual federal alcohol taxes already being paid by drinkers ($.10 per drink[7,20]). Total annual taxes paid after a hypothetical $.25 per drink increase were then calculated by multiplying an individual's price elasticity-adjusted annual consumption by $.35 per drink ($.10 per drink in current taxes plus a hypothetical $.25 per drink increase). The net increase in expenditures was then calculated by subtracting current annual tax expenditures from the total annual tax expenditures after the tax increase (i.e., after adjusting consumption to account for the impact of the higher price). Per capita and aggregate net tax increase-associated revenues were then assessed among a variety of subgroups based on their alcohol consumption characteristics and socio-demographic factors such as age, sex, race/ethnicity, education, income, and employment status. Analyses were performed from May, 2010 through August, 2011, using SAS version 9.2.

Results

After weighting, 50.5% of U.S. adults who reported current drinking in the past 30 days comprised the study population (Table 1). Among current drinkers, 50.4% were classified as higher-risk drinkers and 49.6% were classified as lower-risk drinkers. Among higher risk drinkers, 58.8% usually consumed ≥3 drinks per drinking day, 63.0% reported binge drinking, including 25.3% with three or more binge episodes, and 7.5% reported alcohol impaired driving. A majority (75.2%) of lower-risk drinkers reported usually consuming 1

drink per drinking day and 80.2% of lower-risk drinkers reported between 1 and 10 drinking days in the past 30. Males drank more than females for all consumption measures. Among male higher-risk drinkers, 78.3% usually consumed ≥3 drinks per drinking day, 20.2% drank a maximum of 10 or more drinks on one occasion in the previous 30 days, 77.5% reported binge drinking, and 10.4% reported impaired driving.

Higher-risk drinkers were further characterized on the basis of the risk criteria that were used to define them as such (Table 2). The most common risk factor reported was exceeding the U.S. Dietary Guidelines (82.9%), followed by binge drinking (63.0%), heavy drinking (26.4%), and impaired driving (7.5%). Overall, higher-risk drinkers reported a mean of 1.8 of the 4 risk criteria. The mean number of fulfilled risk criteria based on strata of socio-economic factors including race/ethnicity, education, income, and employment status was similar overall, ranging from 1.7–1.9.

As a result of the tax increase, current drinkers would reduce their annual consumption from 319.1 to 289.7 drinks per year (absolute reduction 29.4 drinks annually, relative reduction 9.2%, data not shown). Compared with lower-risk drinkers, higher-risk drinkers would have larger absolute reductions in the number of drinks consumed (48.4 fewer drinks vs. 10.2 fewer drinks). Among heavy drinkers (the subset of higher-risk drinkers defined on the basis of average consumption), the tax increase reduced annual consumption by 58.6 drinks annually, and resulted in an 11.4% relative reduction in heavy drinking (from 14.0% to 12.4%, or 1.8 million persons).

Table 3 provides per capita data regarding total drink consumption and the net additional cost of a hypothetical alcohol tax increase of $.25 per-drink, analyzed by various socio-economic characteristics. On a per capita basis, higher-risk drinkers would pay 4.7 times as much in net additional taxes compared with lower-risk drinkers. Those exceeding four risk criteria would pay approximately 10 times more than those exceeding only one risk criteria, and approximately 16 times more than those exceeding none (i.e., lower-risk drinkers). Among various strata of lower-risk drinkers, none would pay more than $35.04 per year in net increased taxes. Higher risk drinkers who would pay the most in additional taxes included men, those with less education, those of lower income and retired persons. Lower-risk drinkers who would pay the most in additional taxes included men, those of white race, college graduates, and those with incomes exceeding $50,000.

Table 4 presents similar data but on an aggregate, rather than per capita, basis. Additional net tax revenue was approximately $7.9 billion annually, and 82.7% ($6.5 billion) of this was be paid by higher-risk drinkers. Among all drinkers and among higher-risk drinkers, those aged 21–50, men, persons of white race, college graduates, those earning $50,000 or more per year, and employed persons paid the most in terms of aggregate tax increases. Those exceeding three or more alcohol-related risk criteria (11.5% of all drinkers) paid approximately 48% of tax revenues.

Discussion

Raising the price of alcohol through taxation is a highly effective strategy by which to reduce excessive drinking and related harms. A 25 cent-per-drink tax increase would result in more than a 10% reduction in heavy drinking, which would yield a substantial public health benefit for a behavior that currently leads to approximately 79,000 deaths annually in the U.S.[2] However, it is likely that the morbidity and mortality benefits would exceed that suggested by the change in consumption, since absolute consumption would decrease most among those who drink the most and who incur most alcohol-attributable consequences.[10,21] In addition, since the risk of alcohol-attributable harms increase exponentially with

increasing levels of consumption,[22] even moderate reductions in consumption among those drinking the most leads to relatively large reductions in alcohol-attributable harms. Finally, youth drinkers may experience greater-than-average reductions in alcohol consumption from a tax increase because they tend to be high-risk drinkers and because their price elasticity of demand is typically high, even though this was not modeled due to a lack of an available meta-analysis of the price elasticity of demand for this group.[10,21]

Higher-risk drinkers (including those who reported binge drinking, consumption during drinking days that exceeded U.S. Dietary Guidelines limits, heavy drinking, or alcohol-impaired driving) would pay approximately five times as much individually and in aggregate compared with lower-risk drinkers, while the typical lower-risk drinker would pay less than $30 in net additional taxes annually. This demonstrates that even though alcohol taxes are applied to all drinks (i.e., alcohol taxes cannot selectively be applied based on who is purchasing the alcohol), they cost higher-risk drinkers considerably more than lower-risk drinkers because of how skewed alcohol consumption is in the U.S.: a relatively small percentage of drinkers consume most of the alcohol, and most lower-risk drinkers don't drink regularly or consume much alcohol. Having higher risk drinkers pay far more than lower-risk drinkers is not only desirable from a fairness perspective, but results in larger absolute reductions in consumption among higher-risk drinkers, which is desirable from a public health perspective.

There is also interest about who pays the most in alcohol taxes based on socio-economic factors, particularly among lower-risk drinkers who are unlikely to be detrimental to public health and safety. Among lower-risk drinkers, both in aggregate and on a per capita basis, groups who paid the most for an alcohol tax increase were male, white, relatively affluent and educated, and employed. Therefore, assuming that alcohol tax revenues were used for across-the-board offsets to other tax obligations, lower-risk drinkers from relatively disadvantaged socio-economic groups would realize a net economic gain from an alcohol tax increase. Among higher-risk drinkers, however, those who were relatively poor, less educated and non-employed paid more in per capita tax increases than other groups. Also, it should be noted that any tax increase on those with less income will take a larger proportion of their income than would the same tax on someone earning more, and could thus be potentially regressive in nature. In this case, however, that larger financial impact might lead to greater reductions in drinking and a larger public health benefit for those same individuals.

It is important to acknowledge that the distribution of taxes paid by higher-risk and lower-risk drinkers is dependent upon the classification criteria for the two groups. Of the 57.4 million higher-risk drinkers, 17.8 million were considered higher-risk solely because their consumption exceeded the U.S. Dietary Guidelines but exceeded no other risk thresholds. This subset of higher-risk drinkers consumed less alcohol overall (and hence paid less in taxes) than other higher-risk drinkers. Their net per capita taxes paid would increase by $31.30 annually, and in aggregate they would pay an additional $556 million, or 8.5% of the amount that would be paid by the higher-risk group (data not shown). Had they been classified as lower-risk drinkers instead, the remaining higher-risk drinkers would have paid 6.1 times more than lower-risk drinkers in per capita taxes, and accounted for 75% of total tax paid (compared with paying 4.7 times more than lower-risk drinkers and 83% of all additional taxes paid when those only drinking above U.S. Dietary Guidelines are included in the higher-risk group).

Imposing alternative assumptions would have changed our findings. Had a different tax increase been used, consumption and revenue increases would have changed accordingly (e.g. higher taxes would cause larger decreases in consumption but higher revenue). The

overall price elasticity of demand for this study was based on a recent meta-analysis;[15] however, had meta-analyses of price elasticities for subgroups (e.g., based on income, age, drinking quantity) been available, the observed distribution of tax revenues would have somewhat different. For example, assuming a larger price elasticity of demand for those of younger ages or lower income would have resulted in relatively larger reductions in their drinking and a reduced tax burden for them. Although we modeled a full pass-through (i.e., assuming that 100% of the tax was passed on as a price increase) of the tax, modeling either smaller or larger relative pass-through would have resulted in a smaller or larger change in price, which would have affected consumption and tax impacts accordingly.

Characteristics of surveys generally, including BRFSS, also make it likely that the financial impact of the tax increase would differ from our estimates.[23] Specifically, BRFSS estimates of consumption account for less than one-third of consumption based on sales tax data,[24,25] suggesting that actual additional revenue from a $.25 per drink tax would be approximately $29 billion. In addition, survey respondents are less likely to include those who consume high amounts of alcohol compared with those who consume lower amounts.[26–29] This implies that in our study the proportion of alcohol consumption and tax expenditures accounted for by higher-risk drinkers are under-estimates relative to consumption and expenditures by lower-risk drinkers.

Despite the lack of any randomized study of low-dose alcohol and any morbidity or mortality outcome, and despite the fact that observational studies of established moderate drinkers are limited by confounding and selection bias, much attention has been paid to possible health benefits of low-level (sometimes termed ‘moderate’) alcohol consumption,.[30–33] However, to the extent that there are health benefits associated with moderate drinking, reducing higher-risk alcohol consumption to more moderate levels by means of a tax increase would have the salutary side-effect of increasing the number of persons to whom such benefit might accrue. Moreover, the reductions in higher risk drinking following a tax increase would lead to sharp reductions in overall alcohol-related mortality.

A strong theoretical justification for taxes generally, and for alcohol excise taxes in particular, is to recoup the social and economic costs incurred from the sale of alcohol that are not borne by its producers, sellers, or consumers (i.e., the ‘external’ costs of alcohol consumption).[22] These external costs are considerable, and include health-related effects, social problems (e.g., child abuse and neglect, marital problems, alcohol-related crimes), and economic costs (e.g., health care costs, legal and criminal justice system costs, lost economic productivity, higher car insurance premiums, etc.).[2,34–37] Currently, the net external costs (external costs minus tax revenues) for alcohol in the U.S. are approximately $1 per drink; to remedy this disparity would require raising alcohol taxes by an order of magnitude from present levels.[38–40]

The gap between the societal costs of alcohol sales and its corresponding excise tax rates continues to widen.[41] This is because most alcohol excise taxes at the federal and state levels are based on volume and have not been increased regularly or in large enough increments over time,[42] resulting in an erosion of the value of these taxes in inflation adjusted terms.[42,43] For example, the federal beer tax has remained unchanged since it was last raised in 1991, and its inflation adjusted value has eroded by approximately 40% in the interim.[43,44] Raising alcohol taxes provides multiple benefits in terms of public health and economic fairness.[44] It would reduce harms from the third leading preventable cause of death in the U.S.,[1] reduce costs to responsible drinkers by lowering tax obligations in other areas, begin to recoup alcohol-related costs to society associated with alcohol sales by moving taxes more closely in line with historical standards, and provide badly needed

revenue to cash-strapped state and federal governments at a time where there is extreme reluctance to increase income or property taxes.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Average number of drinks and per capita annual net tax expenditures derived from a 25 cent per drink tax increase for lower- and higher-risk U.S. adult drinkers, by selected characteristics, BRFSS survey, 2008[a,b,c,d]

	Higher-risk drinkers			Lower-risk drinkers		
	Average Number of Drinks/mo	Average Number of Drinks/yr	Per Capita Net Annual Tax Increase ($)	Average Number of Drinks/mo	Average Number of Drinks/yr	Per Capita Net Annual Tax Increase ($)
Overall	39.6	475.5	114.03	8.4	100.9	24.20
Age (years)						
18 to 20	38.7	464.9	111.50	3.0	35.9	8.61
21 to 30	43.9	527.3	126.47	5.0	60.5	14.51
31 to 40	34.0	408.5	97.98	6.1	73.7	17.68
41 to 50	37.1	445.7	106.90	7.6	91.5	21.95
51 to 60	40.1	480.7	115.29	9.2	110.2	26.43
61 or older	46.4	556.2	133.39	12.0	144.1	34.56
Sex						
Males	53.9	646.7	155.10	10.7	128.3	30.78
Females	22.6	271.3	65.07	5.4	64.6	15.49
Race/Ethnicity						
White/non-Hispanic	38.8	465.2	111.57	9.1	108.9	26.12
Black/non-Hispanic	36.4	438.3	105.12	5.5	66.5	15.95
Other/non-Hispanic	55.9	670.8	160.88	7.0	84.0	20.15
Hispanic	38.3	459.3	110.16	5.6	66.8	16.02
Education						
Some HS	56.7	680.7	163.26	6.3	75.6	18.13
HS graduate	44.0	527.7	126.56	7.1	84.6	20.29
Some college	36.6	439.7	105.46	7.7	92.1	22.09
College graduate	34.3	411.6	98.71	9.6	114.7	27.51

	Higher-risk drinkers			Lower-risk drinkers		
	Average Number of Drinks/mo	Average Number of Drinks/yr	Per Capita Net Annual Tax Increase ($)	Average Number of Drinks/mo	Average Number of Drinks/yr	Per Capita Net Annual Tax Increase ($)
Income						
< $25,000	43.7	524.1	125.70	6.8	81.4	19.52
$25 – $34,999	39.6	475.7	114.09	7.3	87.3	20.94
$35 – $49,999	37.7	452.1	108.43	7.9	94.3	22.62
> $50,000	38.7	463.9	111.26	9.2	109.9	26.36
Employment						
Employed	39.0	468.0	112.24	7.9	95.1	22.81
Unemployed	41.0	491.7	117.93	6.0	71.8	17.22
Student	34.1	409.5	98.22	4.4	53.3	12.79
Retired	46.4	556.4	133.44	12.2	146.1	35.04
Number of risk criteria exceeded						
0	-	-	-	8.4	100.9	24.20
1	13.2	158.0	37.89	-	-	-
2	32.8	393.6	94.40	-	-	-
3	94.9	1138.4	273.02	-	-	-
4	137.5	1650.2	395.77	-	-	-

[a]Higher-risk drinkers were defined as anyone reporting one or more of the following risk factors: binge drinking, heavy drinking, drinking in excess of Dietary Guidelines limits, or alcohol impaired driving. Lower-risk drinkers were defined as not reporting any of the preceding risk factors. Binge drinking was defined as ≥1 occasions of consuming ≥ 4 drinks for females or ≥5 drinks for males. Heavy drinking was defined as consuming an average of >2 drinks per day for men or >1 drink per day for women. Drinking above Dietary Guidelines was defined as consumption of ≥3 drinks for men and ≥2 drinks for women during drinking days. Impaired driving was defined as non-zero response to the question, “During the past 30 days, how many times have you driven when you’ve had perhaps too much to drink?”

[b]The number of the risk criteria exceeded refers to the sum of any of the four alcohol-related risk criteria used to define higher-risk drinking.

[c]Data has been modeled to include a decrease in consumption as a result of the increased price of a drink due to a hypothetical $.25 per drink tax, based on the price elasticity of alcohol.

[d]BRFSS data were weighted to be representative for U.S. adults aged 18 years and older on the basis of age, sex, and race/ethnicity

Table 2

Net aggregate annual expenditures from a 25 cent per drink alcohol tax increase among higher- and lower-risk U.S. adult drinkers, by selected characteristics, BRFSS survey, 2008[a,b,c,d]

	Higher-Risk Drinkers		Lower-Risk Drinkers		All Drinkers	
	Total Population, millions	**Net Annual Tax, $ millions**	**Total population, millions**	**Net Annual Tax, $ millions**	**Total population, millions**	**Net aggregate annual tax, $ millions**
Overall	57.4	6530.9	56.5	1368.0	113.9	7898.9
Age (years)						
18 to 20	3.0	331.3	1.1	9.6	4.1	340.8
21 to 30	15.0	1901.4	6.7	97.4	21.7	1998.8
31 to 40	13.7	1341.3	10.5	185.5	24.2	1526.9
41 to 50	12.4	1330.3	12.1	265.0	24.5	1595.3
51 to 60	8.1	932.8	11.5	303.1	19.6	1236.0
61 or older	5.2	693.8	14.7	507.3	19.9	1201.1
Sex						
Males	31.0	4813.6	32.2	990.9	63.2	5804.5
Females	26.4	1717.4	24.3	377.1	50.7	2094.5
Race/ethnicity						
White/non-Hispanic	41.4	4621.0	44.0	1148.9	85.4	5769.9
Black/non-Hispanic	4.5	474.9	4.2	66.7	8.7	541.5
Other/non-Hispanic	3.2	511.5	3.3	66.9	6.5	578.4
Hispanic	8.1	886.8	4.7	75.3	12.8	962.1
Education						
Some HS	4.9	805.7	2.4	43.2	7.3	848.9
HS graduate	15.5	1965.5	11.9	241.8	27.4	2207.3
Some college	16.7	1755.8	14.5	321.4	31.2	2077.1
College graduate	20.3	2001.0	27.7	760.7	48.0	2761.7
Income						

	Higher-Risk Drinkers		Lower-Risk Drinkers		All Drinkers	
	Total Population, millions	**Net Annual Tax, $ millions**	**Total population, millions**	**Net Annual Tax, $ millions**	**Total population, millions**	**Net aggregate annual tax, $ millions**
Less than $25,000	10.0	1260.9	6.6	128.5	16.6	1389.5
$25 to $34,999	5.2	594.6	4.5	94.2	9.7	688.8
$35 to $49,999	7.7	836.2	6.9	156.4	14.6	992.6
$50,000 or more	30.1	3351.7	33.3	878.2	63.4	4229.9
Employment status						
Employed	42.0	4712.0	37.3	850.5	79.3	5562.5
Unemployed	8.3	980.1	6.9	119.2	15.2	1099.4
Student	3.0	298.3	1.5	19.3	4.5	317.5
Retired	4.0	529.2	10.8	376.9	14.8	906.1
Number of risk criteria exceeded						
0	-	-	56.5	1368.0	56.5	1368.0
0	25.8	980.0	-	-	25.8	980.0
1	18.4	1736.6	-	-	18.4	1736.6
2	11.4	3123.6	-	-	11.4	3123.6
3	1.7	690.8	-	-	1.7	690.8

[a]Higher-risk drinkers were defined as anyone reporting one or more of the following risk factors: binge drinking, heavy drinking, drinking in excess of Dietary Guidelines limits, or alcohol impaired driving. Lower-risk drinkers were defined as not reporting any of the preceding risk factors. Binge drinking was defined as ≥1 occasions of consuming ≥ 4 drinks for females or ≥5 drinks for males. Heavy drinking was defined as consuming an average of >2 drinks per day for men or >1 drink per day for women. Drinking above Dietary Guidelines was defined as consumption of ≥3 drinks for men and ≥2 drinks for women during drinking days. Impaired driving was defined as non-zero response to the question, “During the past 30 days, how many times have you driven when you’ve had perhaps too much to drink?”

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