ALCOHOL AND INJURY IN THE GENERAL POPULATION: A RISK FUNCTION ANALYSIS FROM THE 2005 NATIONAL ALCOHOL SURVEY

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PURPOSE OF THE STUDY

To examine the association of reporting an injury during the last year with daily volume of consumption and frequency of higher consumption times in the U.S. adult general population, using a risk function analysis.

METHODS

Sample

Alcohol Research Group's 2005 National Alcohol Survey

Random Digit Dial (RDD) Computer Assisted Telephone Interviews (CATI) of the U.S. general population – adults 18 and over

Over-sampling of blacks and Hispanics

56% completion rate

N = 6,919

METHODS

Variables Analyzed

Injury during the last year: any injury
a treated injury
an ER-treated injury

Average daily volume of consumption: mean number of drinks per day

Frequency of higher BAL: number of days consumed 5 or more drinks (5+ days)

Average Volume For Those With Any Injury

Mean Number of Drinks per Day	Midpoint	N
> 0 – 0.24	0.12	4676
0.25 – 0.49	0.37	529
0.5 – 0.74	0.62	338
0.75 – 0.99	0.87	239
1 – 1.9	1.49	559
2 – 2.9	2.49	239
3 – 4.9	3.99	152
> 5	7.73	150

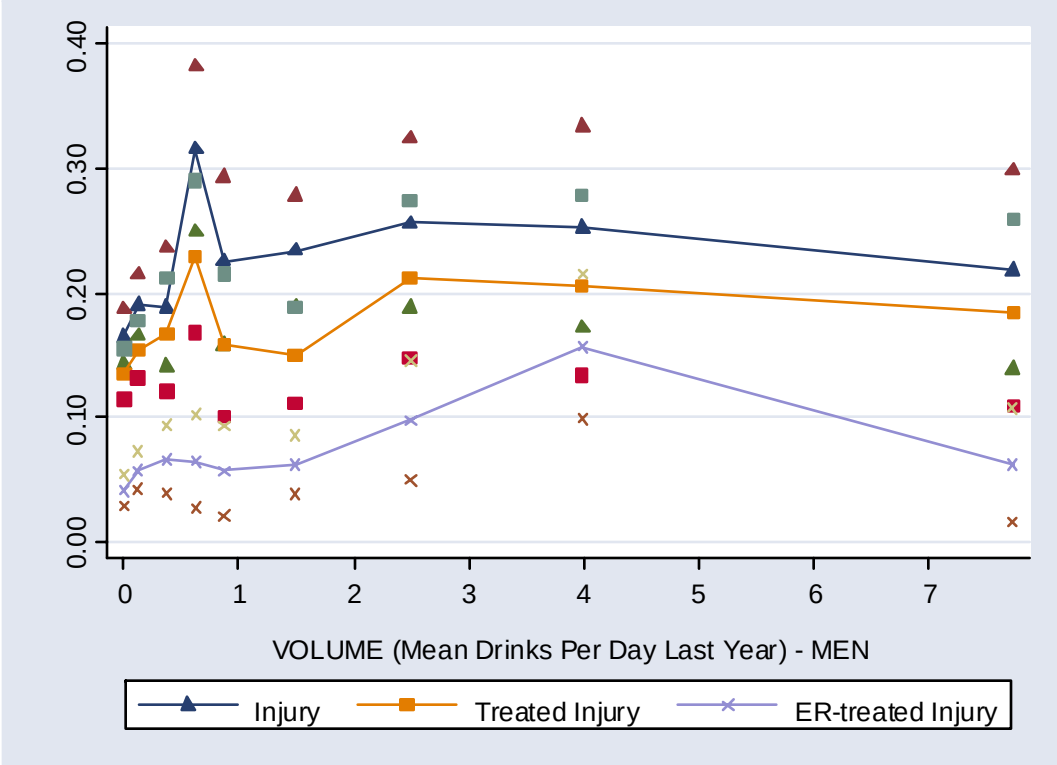
Frequency of High BAL for Those With Any Injury

Number of 5+ Days	Midpoint	N
Never	0	5337
Once	1	338
2 – 11 times per year	6	521
1 – 3 times per month	24	272
1 – 2 times per week	78	243
3 – 7 times per week	270	186

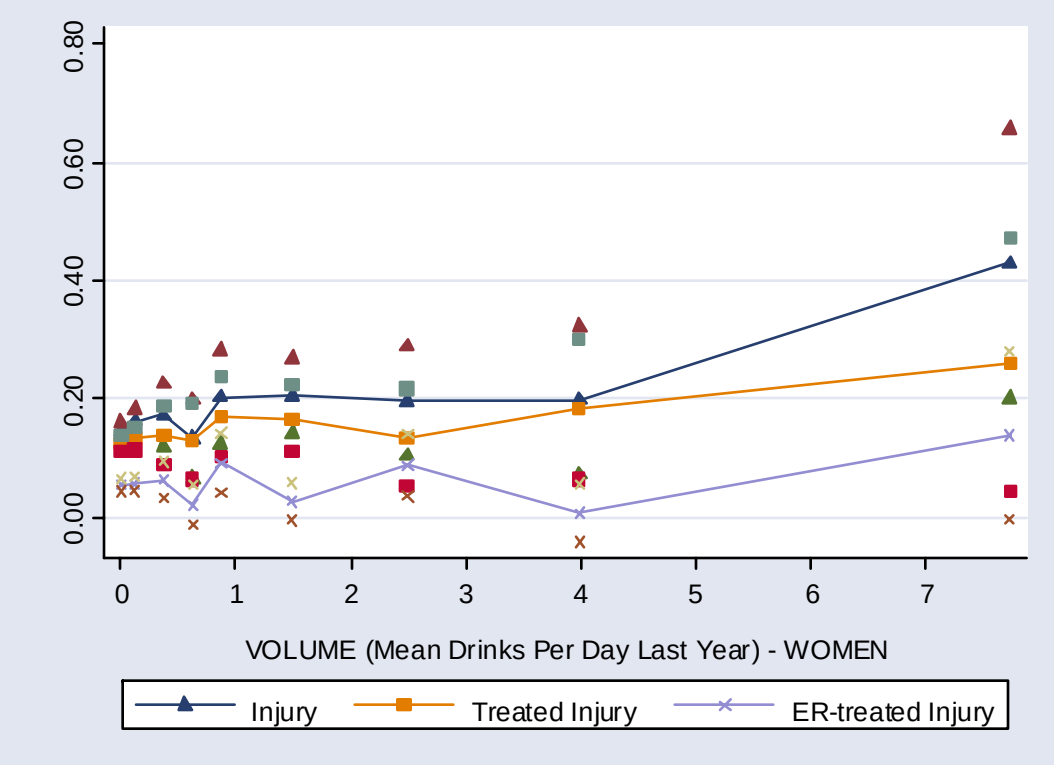
Demographic Characteristics by Injury-Treatment Type (in %)

	Any Injury (1149)	Treated Injury (943)	ER-Treated Injury (362)
Males	54	53	50
18 -29	23	22	29
Ethnicity			
White	76	77	75
Hispanic	9	8	8
Black	10	9	12
Other	6	5	5

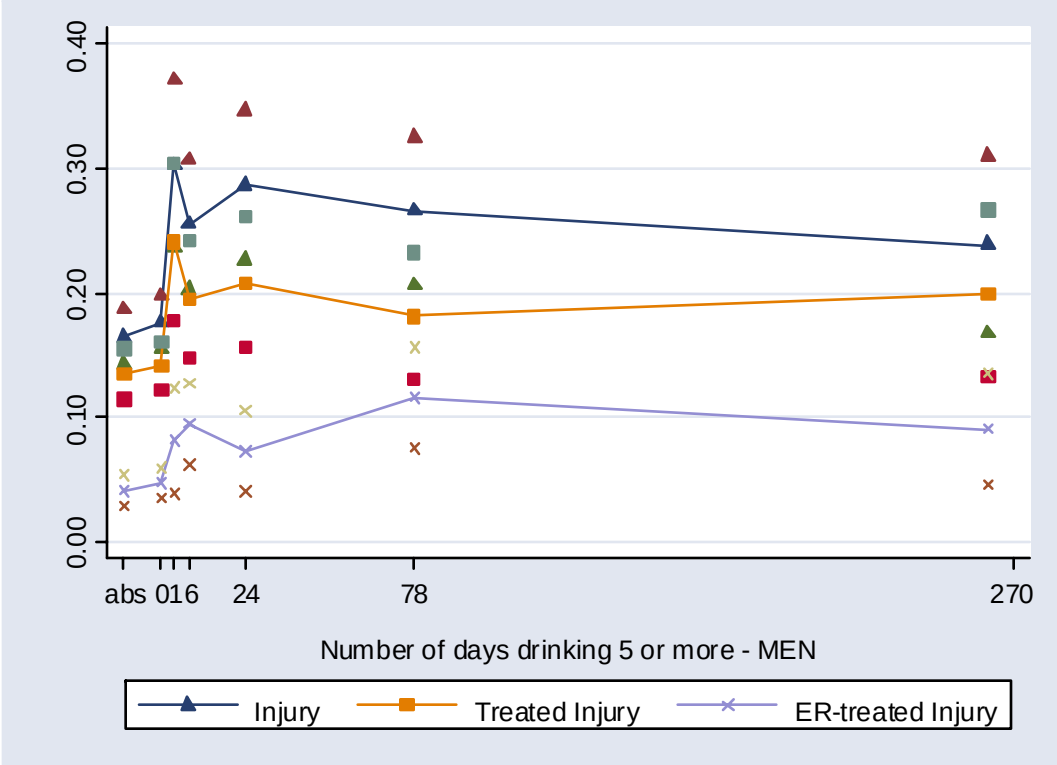
Risk of Injury by Daily Volume for Men



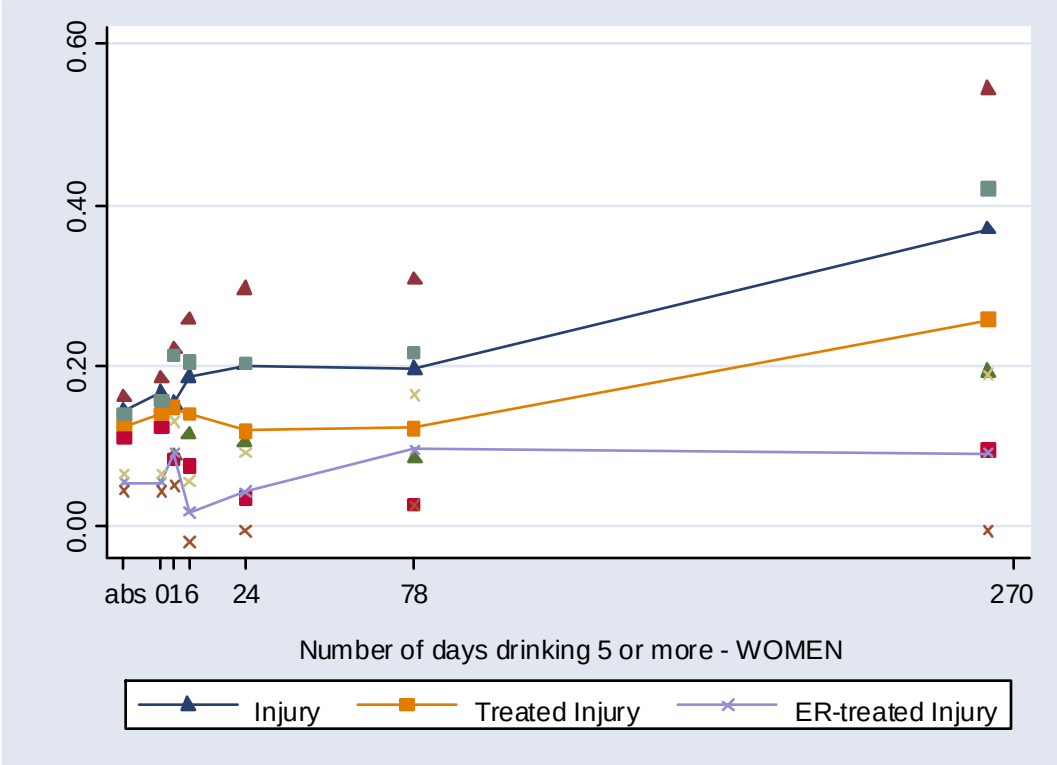
Risk of Injury by Daily Volume for Women



Risk of Injury by Number of 5+ Days for Men



Risk of Injury by Number of 5+ Days for Women



SUMMARY - 1

DAILY VOLUME

For men, the risk of reporting an ER treated injury increased to an average of 4 drinks per day, while the risk of reporting a non-ER treated injury or an untreated injury increased to an average of 2.5 drinks per day.

For women, the risk of all three injury treatment types increased to an average of 8 drinks per day.

SUMMARY - 2

5+ DAYS

For men, the risk of reporting an ER treated injury increased to 78 5+ days in the last year, while the risk of reporting a non-ER treated injury or an untreated injury increased to 24 5+ days in the last year.

For women, the risk or reporting an ER treated injury increased to 78 5+ days in the last year, while the risk of reporting a non-ER treated injury or an untreated injury increased to 270 5+ days in the last year.

SUMMARY - 3

A stronger association of increased levels of drinking (both average daily volume and heavier consumption times) was found for an ER treated injury compared to other injuries for men than for women.

For women a stronger dose-response relation was found in relation to average daily volume for all three injury-treatment types, and in relation to 5+ days for non-ER treated and untreated injuries.

LIMITATIONS

- Severity of injury
- Differential recall of injury by level of severity
- Type of Injury

CONCLUSIONS

These data suggest that the association of volume and high maximum days is different for injuries treated in the ER compared to those treated elsewhere or those that go untreated.

Data on the association of alcohol and injury based on ER studies is not representative of all injuries, and this is important to take into account in deriving estimates of the risk of injury related to alcohol and alcohol attributable fractions.