

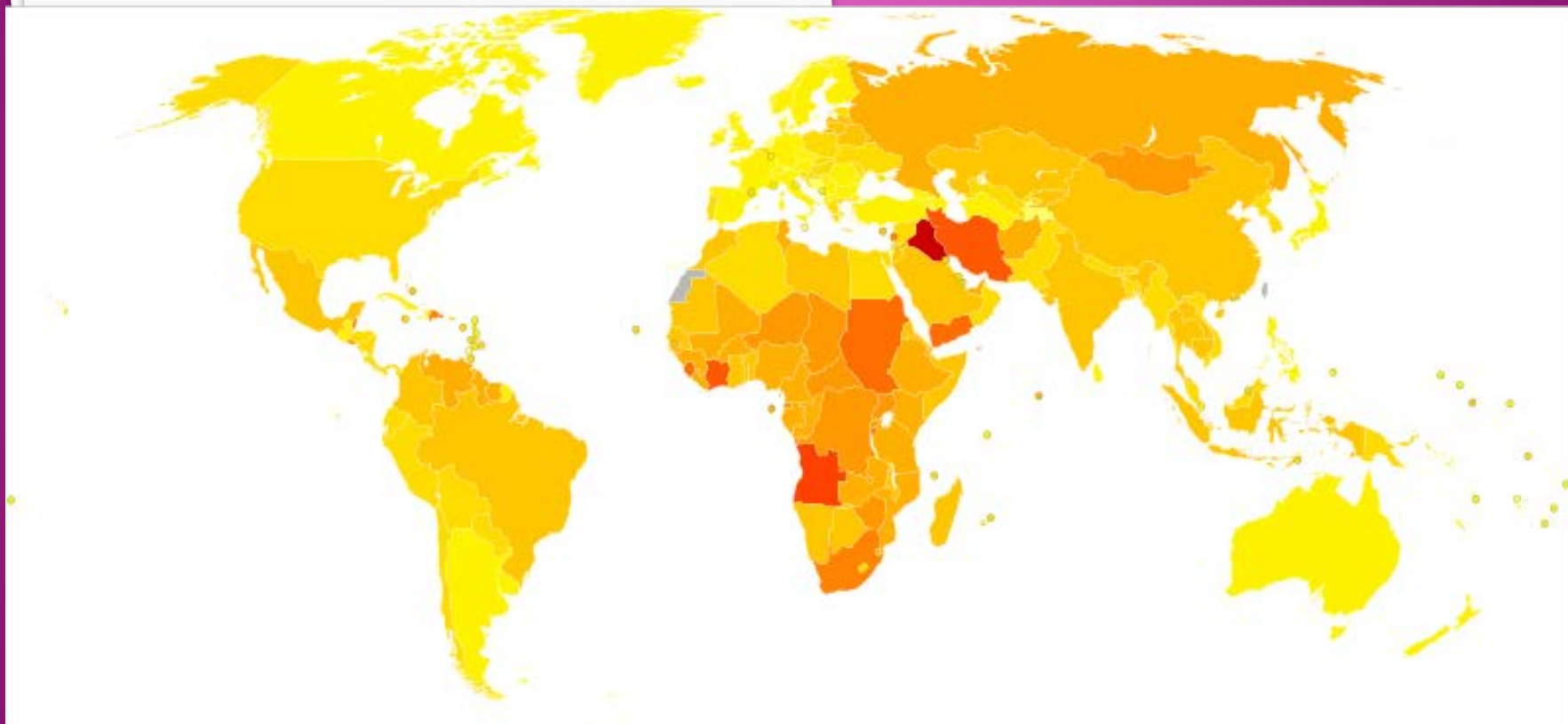
Drink driving in Hong Kong: The competing effects of random breath testing and alcohol tax reductions

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Road Traffic Accidents around the World



Data from *Death and DALY estimates for 2004 by cause for WHO Member States (Persons, all ages)* (2009-11-12)

Study background

- ◉ Governments around the world have attempted to reduce alcohol-related traffic accidents by lowering legal blood alcohol content (BAC) of drivers.
- ◉ Increased penalties and license revocation are being implemented across the world.
- ◉ Other measures include Random Breath Testing of drivers on roadways which has been controversial.
- ◉ The harms reduction measures have been done in a climate of greater alcohol control and greater alcohol restriction.

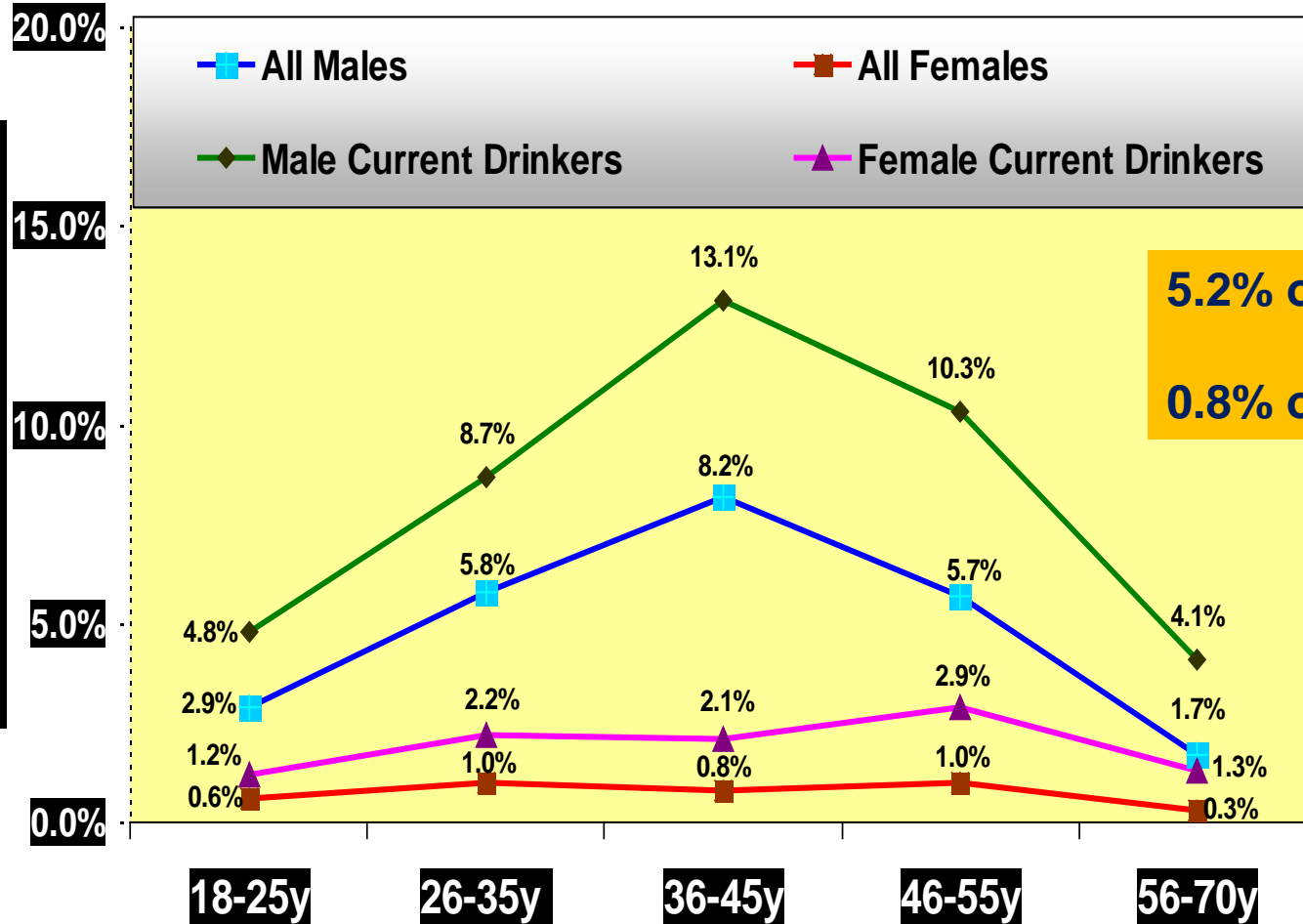


Hong Kong Drinking Environment.

- ◉ Historically permissive legal environment for alcohol.
- ◉ Legal drinking age: 18 yrs
- ◉ Alcohol is easily purchased in stores without an ID.
- ◉ Driving age: 18 yrs
- ◉ Drunk driving *per se* laws only since 1995
- ◉ Legal BAC: 50mg/100ml blood



Age-specific Drinking & Driving Rates by Gender



Hong Kong since 2006



Global Financial Crisis of 2007-2012

Recent Changes to the Drinking Landscape of Hong Kong since 2006 baseline study

Hong Kong becomes world's largest wine market

Hong Kong has overtaken New York and London as the world's most important wine market.



One unnamed wine buff from mainland China paid a record \$93,077 for an Imperiale (the equivalent of eight bottles) of 1982 Château Pétrus Photo: GETTY

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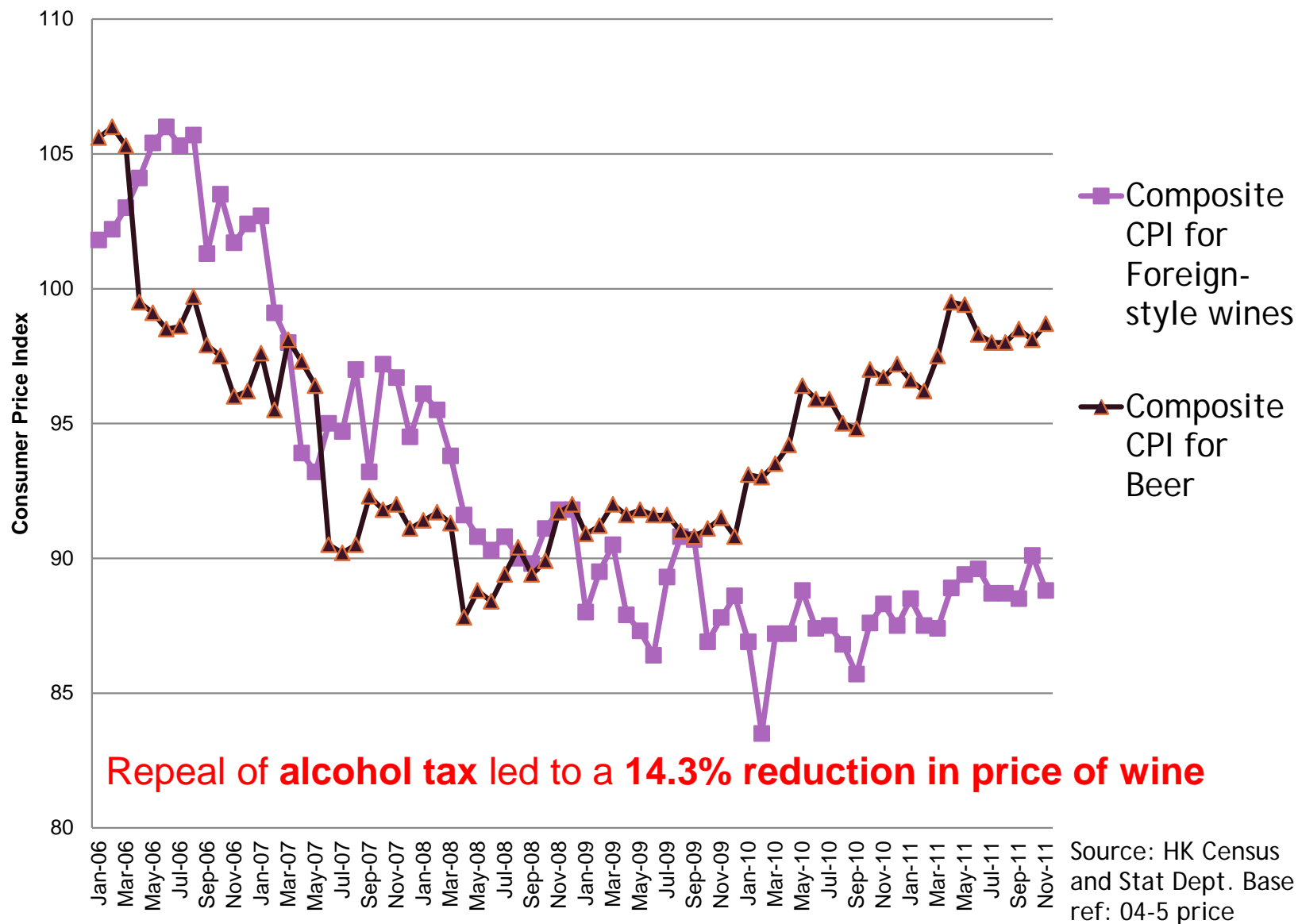
Wine

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Related Postings

- 2008: Repeal of import tariffs or duties on alcohol beverages
- Wine duties were slashed from 80% to 0%
- Hong Kong also embarked on a plan to create the “Wine Capital of Asia”

Figure 1: Composite Consumer Price Indices for different types of alcohol, 2006 to 2011



Changing culture in drinking



“Sales driven by a younger crowd... Positive growth for alcohol drinks forecast ”

(Euromonitor International, 2011)

Changes to local supply of alcohol



Hong Kong became the 3rd largest luxury wine auction market in the world

Fostering the wine education

WINE MBA

Bordeaux Management School
The University of Hong Kong School of Professional and Continuing Education

The First Wine MBA
from France in Asia Pacific



in collaboration with

Professional Diploma in
Wine Assessment and Services
(with Intermediate Award)



Changes in Alcohol Consumption before and after government alcohol promotion initiatives

Between 2006 and 2011/12:

Ever drinker: Increased from 66.6% to 84.8%*

Past-year Drinker: Increased from 47.3% to 59%*

Binge Drinker, Alcohol Abuse and Alcohol Dependence remained statistically similar to 2006 levels.

*: p-value <0.05 after adjusting for gender, age, and socioeconomic differences

Anti-Drink Driving Policies since Baseline

- ◎ **Sept 2008:** 5 ug leeway for BAC abolished
- ◎ **Dec 2008:** HK Police begin an anti-drink driving awareness campaign
- ◎ **Feb 2009:** Random Breath Testing begins at non-fixed roadway checkpoints
- ◎ **Dec 2010:** Road Traffic Ordinance Amendments implements a 3-tiered penalty system for drink driving violations



HK Road Traffic Ordinance of 2010

Hong Kong has recently passed much more stringent penalties for drink driving

- ⦿ A three-tiered penalty system whereby higher BAC levels incur heavier penalties.
- ⦿ The minimum driving disqualification period for first time offenders was increased from 3 months to 6 months for offenders with BAC 0.05-0.08%.
- ⦿ Minimum disqualification increasing to 2 years for 1st time offenders with BAC>0.15%.
- ⦿ Offenders also face stiff fines up to \$25,000 HKD (\$3200 USD)
- ⦿ Repeat offenders can receive up to 3 years imprisonment.



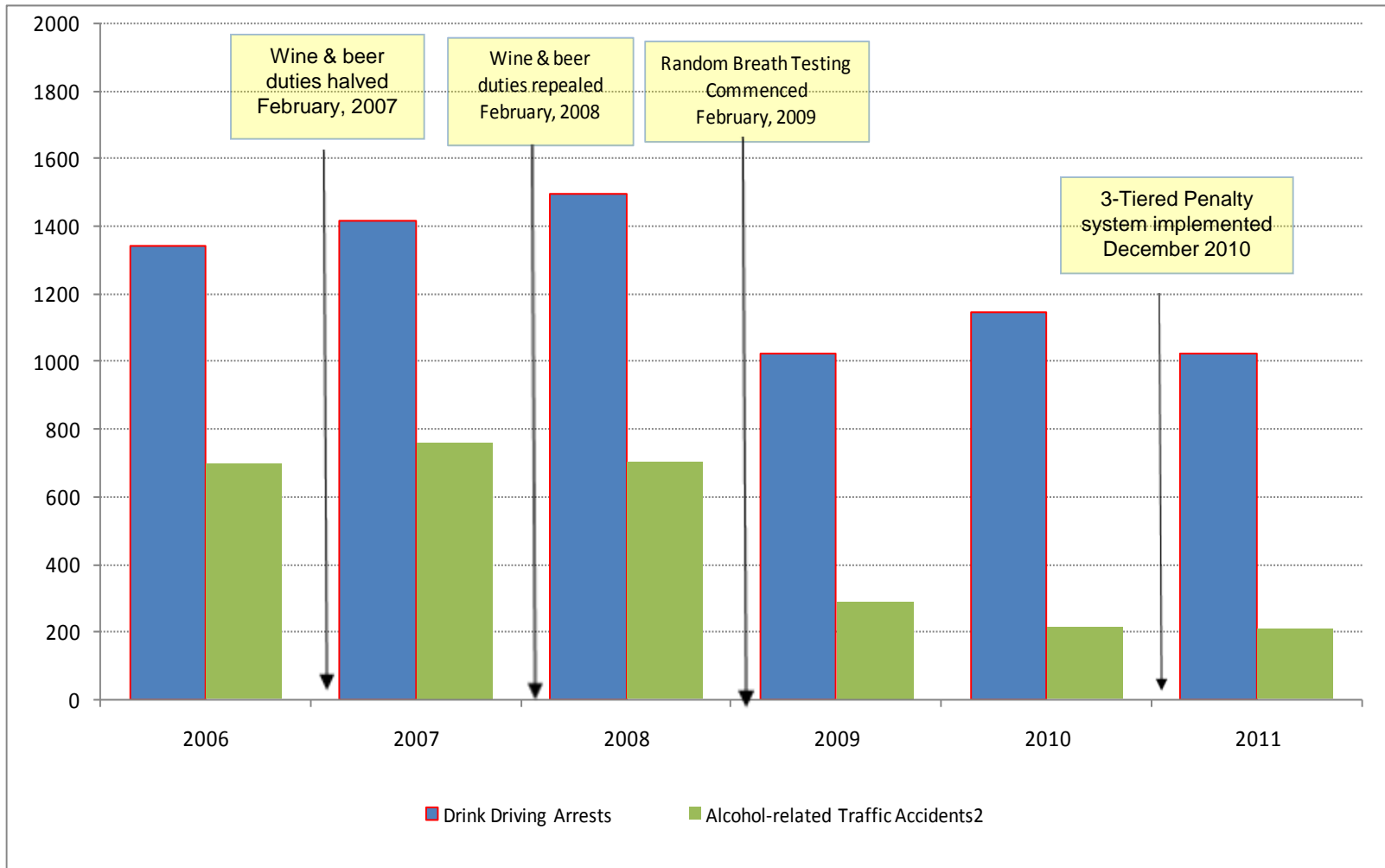
RESEARCH QUESTION:

Have government anti-drink driving measures been able to reduce drink driving in a climate of greater alcohol consumption and heavy alcohol promotion?

Methodology

- In 2006 and 2011, anonymous telephone surveys were conducted (n=9680 & n=4800, respectively) on ethnic Chinese residents of Hong Kong (18-70 yrs of age). Response rate >62% for both surveys.
- Collected variables:
 - Drink driving frequency in the past year (driving within 2 hrs of consuming a serving of alcohol)
 - Socio-demographic factors
 - Information about patterns of drinking (frequency, amount, history), binge drinking information (5+ drinks per sitting).
 - DSM-IV based battery of questions of Alcohol Abuse & Dependence.
- ◉ In 2011, we also obtained traffic accident statistics from the Hong Kong Police Department from years 2006 until 2011.

Changes in Drink Driving Arrests & Alcohol-related Accidents



What type of drinkers are showing reductions in Drink Driving?

	2006 levels	2011 levels	Absolute Change
Male past-yr drinkers	9.0%	4.4%	-4.6% (p<0.001)
Male weekly drinkers	13.7%	8.5%	-5.2% (p<0.01)
Male binge drinkers	14.8%	12.5%	-2.3% (NS)
Female past-yr drinkers	2.1%	1.6%	-0.5% (NS)
Female weekly drinkers	6.4%	4.7%	-1.7% (NS)
Female binge drinkers	6.9%	7.9%	+1.0% (NS)

Deterrents to drink driving

	% among all past-year drivers
Avoiding criminal record/jail	96.5%
More severe criminal penalties	96.0%
Worry about being pulled for breath test	93.8%
Fear of getting license revoked	93.6%
Heavier fines	70.0%
Wish to avoid fines	63.3%
Insurance premiums increase	60.4%
Financial costs of accidents (repairs, legal fees)	60.2%
Concern about injury to myself or family	72.7%
Family and friends have warned me to avoid DD	71.6%
Posters, broadcasts and other reminders	55.3%

Some concluding thoughts:

- ◉ The current law enforcement policy appears to be successful in reducing the harms of drinking among non-binge drinking male drivers.
- ◉ However, the current policies have not reduce drink driving among female drivers and among binge drinkers.
- ◉ Binge drinkers may represent “hard core” drink drivers who may need further actions
- ◉ Despite environmental and cultural differences, the primary deterrents to drink driving are similar to those reported in other parts of the world with legal consequences being the most cited deterrents.
- ◉ Findings in this study may be applicable regionally in urban centers with high reliance on public transportation

THE END



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MULTIVARIATE ODDS RATIOS OF DRUNK DRIVING BY GENDER in 2006 Baselie

FACTORS	MALES (n=4941) Odds Ratio	FEMALES (n=4928) Odds Ratio
Age 35-44yrs	NS	6.13*
45-55 yrs	NS	9.66**
Form 6-7 Education/Diploma	NS	4.38*
University Degree	2.22*	NS
Married	1.54*	NS
Professional Employment	2.38*	NS
Weekly Drinker	2.30***	3.00*
Binge Drinker	1.93**	5.89**
Alcohol Abuser	8.78***	11.6***
Alcohol Dependent	NS	NS

*p<0.05 ** p<0.01 *** p<0.001 NS: Not significant.

20% of drinkers stated that their Alcohol consumption habit changed in past 3 years.

Top 5 answers given for how:

Spend more on alcohol

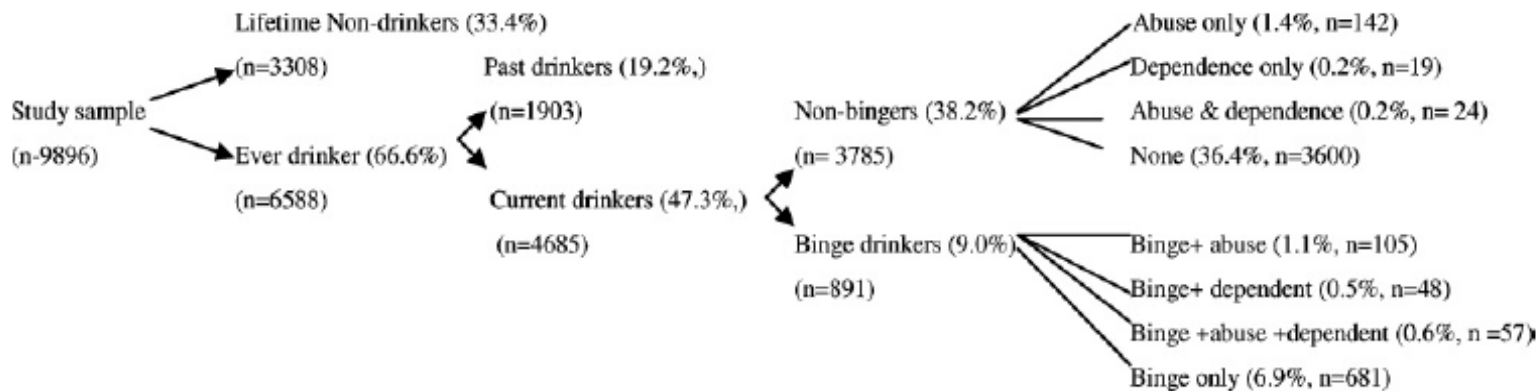
Drink more often

Drink more outside of home with friends and family

Drink with meal more often

Drink with co-worker more often

Profile of Alcohol Consumption among Hong Kong Chinese in 2006



Kim et al., 2008

New Alcohol Intervention

Hong Kong has recently embarked on a precautionary approach.

Department of Health instigated an Action Plan to combat Alcohol harms through public health campaigns to educate the public & involve medical establishment.

