

BACKGROUND

- Binge drinking a major public health issue
- Excessive consumption has been linked to cancer, physical illness and cognitive difficulties (National Health and Medical Research Council 2001).
- Social marketing benefits all (Andreasen, 2006; Bagozzi, 1975; Bartels, 1974; Kotler et al., 2002; Maibach et al. 2002).

Research problem:

'Are price, venue and place of residence significant predictors in differentiating between low-risk, risky and high-risk alcohol consumers?'

3

INSM 2010

BACKGROUND: PRICE

- Can deter *and* encourage alcohol consumption (Naimi et al., 2010)
- Law of Demand is operating (Marshall, 1920)
- Inverse relationship between price and alcohol consumption has been shown **over time** and **across counties** irrespective of study design and analytical approach (Elder et al., 2010; Rabinovich et al., 2009)
- Australian Federal Government 2008 'Alcopop's tax (Roxon, 2009)

4

INSM 2010

BACKGROUND: VENUE

- Studies of geographies associated with drinking is emergent (Jayne et al., 2008)
- Patterns to spaces where alcohol is consumed with key distinction between **private settings** (e.g. at home) and **public settings** (e.g. pubs) (NHMRC 2009)
- Interplay between venue and gender, perceptions of safety and affordability (Heley, 2008; Holloway et al., 2009)
 - Private places ⇒ femininity, safe and cheap
 - Public places ⇒ masculinity, less safe and expensive
- Young people move between locations commencing at private setting before moving to public ones (NHMRC 2009)
- Cultural differences expected but not known (Naimi et al. 2010)

5

INSM 2010

BACKGROUND: PLACE OF RESIDENCE

- Known relationship with alcohol consumption (O'Hara et al. 2007)
- Among university students, heavier drinkers live independently (Wood et al., 2009)
- Those who live with parents less likely to drink excessively (Shim and Maggs, 2005)
- Intervention strategies at US College Campuses (Woods et al., 2009).

6

INSM 2010

METHOD

- Self-administered questionnaire was developed from existing scales of the National Drug Strategy Household Survey

- Expert panel review (n=6) and pre-testing (n=45).

Sample

- ⇒ Australian regional university (n=305)
- ⇒ German rural university (n=321)
- ⇒ Welsh city university (n=361)

- Three risk classifications drawn from the Australian Alcohol Guidelines:

- ⇒ “On a day when you drink alcohol, how many standard drinks do you usually have?”

Low Risk =
4 or less
standard
drinks

Risky =
5 to 6
standard
drinks

High Risk =
7 or more
standard
drinks

7

INSM 2010

METHOD

- Self-reported alcohol consumption (see Brener-Billy and Grady 2003; Cooper et al. 1981; Dufour 1999, Harrison 1997; Patrick et al. 1994)

- Standard drinks table included

- Quota sampling to control for age

- Selection bias minimised with data collected on different days, times and locations (Sudman and Kalton 1986)

8

INSM 2010

METHOD

- Place of residence
 - ⇒ Dependent (e.g. 'in parents house')
 - ⇒ Independent (e.g. 'university accommodation')
- Venue
 - ⇒ Private (e.g. 'at a friends house')
 - ⇒ Public (e.g. at a night club')
- Price
 - ⇒ 'price reduction'; 'quantity discount', 'on special' and 'store advantage' (e.g. rewards card)
- Composite loadings:
 - ⇒ Australia 0.65-.80; $\alpha=0.69$
 - ⇒ Germany 0.67-0.75; $\alpha=0.70$
 - ⇒ Welsh 0.66-0.82; $\alpha=0.77$

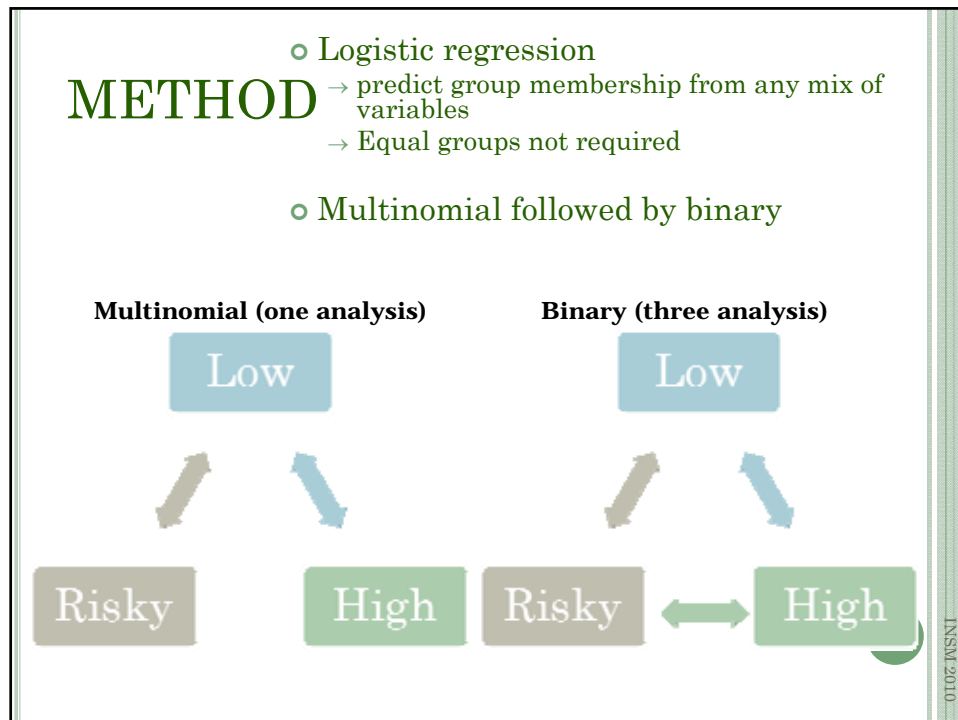
9

INSM 2010

RESULTS

	Australia	Germany	Wales
Category	n(%)	n(%)	n(%)
Low-risk (4 or less drinks)	122 (40.0)	195 (60.0)	131 (37.0)
Risky (5 - 6 drinks)	75 (24.6)	77 (23.7)	167 (47.2)
High-risk (7+ drinks)	108 (35.4)	53 (16.3)	56 (15.8)
Total	305	325	354

INSM 2010



RESULTS

MULTINOMIAL LOGISTIC REGRESSION

	Australia $\chi^2=13.17$ $p<0.05$	Wales $\chi^2=78.12$ $p<0.05$	Germany $\chi^2=5.61$ $p>0.05$
o			
H1. Price is a significant predictor in differentiating between low-risk, risky and high-risk alcohol consumers.	x	✓	x
H2. Venue is a significant predictor in differentiating between low-risk, risky and high-risk alcohol consumers.	x	✓	x
H3. Place of residence is a significant predictor in differentiating between low-risk, risky and high-risk alcohol consumers.	✓	x	x

RESULTS

BIVARIATE LOGISTIC REGRESSION

		Australia	Wales	Germany
○ Low-risk vs Risky	Price	✗	✓	✗
	Venue	✗	✓	✗
	Place of residence	✓	✗	✗
Low-risk vs High-risk	Price	✗	✓	✗
	Venue	✗	✓	✗
	Place of residence	✓	✗	✗
Risky vs High-risk	Price	✗	✓	✓
	Venue	✗	✗	✓
	Place of residence	✗	✗	✓

CONCLUSIONS

- While binge drinking behaviour is problematic around the world, the reasons that underpin it are not universal
- Multinomial results - interventions:
 - Place of residence in Australia
 - Price and venue in Wales
 - Other factors in Germany
- Implication is culturally congruent social marketing interventions