ALCOHOL, VIOLENCE, POLICY AND POLITICS: CAN WE MAKE PROGRESS?

A PUBLIC HEALTH PERSPECTIVE

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WHAT IS PUBLIC HEALTH?

“Public health is the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention and detection and control of infectious diseases.”

“A large part of public health is promoting healthcare equity, quality and accessibility.”
VIOLENCE/ALCOHOL OR BOTH?

• Alcohol-related harm and violence are inextricably interwoven
• Not always

• Alcohol -> Violence

• Violence -> alcohol use

• Intergenerational transfer of both
VIOLENCE

• More than 1 billion children – half the children in the world – are victims of violence every year
• 45% (45.3% F/43.5% M) report lifetime violence experience
• 13.5% in the past 12 months
• approximately 11.2% of the Australian population aged over 15 years (1.93 million persons) have experienced physical or sexual violence perpetrated by a current or former partner.
IMPACT OF VIOLENCE

• Developmental
  – young men who were physical beaten by their father were 2 time more like to be Perpetrators of bar-room aggression (Miller et al 2012)
  – Corporal punishment (smacking)
  – Banned in 43 countries, predicts large array of harm

• A leading cause of disability/death in young people
  • Especially if we include suicide
LONGITUDINAL PREDICTORS OF VIOLENCE

1. Having been abused or neglected as children
2. Poor behaviour management practices, such as poor supervision of children;
3. High levels of family conflict; and
4. Family history of antisocial behaviour.

THE FIRST 1,000 and 5,000 DAYS OF LIFE

GENETICS

Play a role in both

• ‘Addiction’
  – complex
• 50-80% prediction for alcohol

• MAOA gene
• Short expression
ALCOHOL

• Acute and chronic impacts
• Acute gets attention
• Chronic important
Percentage of disability-adjusted life years (DALYs) attributed to 19 leading risk factors, by country income level, 2004 – cf. WHO Global Health Risks 2009

Risk Factors:
- Childhood underweight
- Unsafe sex
- Alcohol use
- Unsafe water, sanitation, hygiene
- High blood pressure
- Tobacco use
- Suboptimal breastfeeding
- High blood glucose
- Indoor smoke from solid fuels
- Overweight and obesity
- Physical inactivity
- High cholesterol
- Occupational risks
- Vitamin A deficiency
- Iron deficiency
- Low fruit and vegetable intake
- Zinc deficiency
- Illicit drugs
- Unmet contraceptive need

Per cent of global DALYs (total: 1.53 billion)

Legend:
- High income
- Middle income
- Low income
MORE THAN HALF THE WORLD DOES NOT DRINK!
ALCOHOL-RELATED HARM

- **Health problems**
  - Pancreatic cancer
  - Liver cancer
  - Heart attack and stroke
  - Oral cancer,
  - Esophageal cancer,
  - Head and neck cancer,
  - Laryngeal cancer
  - breast cancer
  - bowel cancer
  - liver cirrhosis
  - Diabetes
  - Acute and chronic pancreatitis
  - addiction
  - And even HIV/AIDS

- **Social order problems**
  - 45% of homicides in Aus 2001-7
  - 47% assaults in Australia
  - 66% of perpetrator for sexual assault incidents in
  - 53.3 of sexual assault victims
  - 6,800 serious or fatal road injuries per year - Vic
  - 4,800 ambulance attendances in Melbourne 2006/7
  - 24,714 inpatient hospitalisations in Victoria 2006/7
  - 39% of all people seeking help for addiction
ALCOHOL-RELATED VIOLENCE

- 367 deaths and 13,669 hospitalisations because of the drinking of others (2005).
- 69,433 Australians were victims of alcohol-related assaults (2008)
- 24,581 were victims of alcohol-related domestic violence.
- 19,443 cases of child abuse involved alcohol (2006-07)
- costs Australians more than $20.6 billion.
DOES ALCOHOL CAUSE VIOLENCE?

The evidence of direct relationships:
- Street violence (60%)
- Family violence (30%)
- Domestic violence (30-40%)
- Child abuse (24,000 cases)
Three kraters do I mix for the temperate: one to health, which they empty first, the second to love and pleasure, the third to sleep. When this bowl is drunk up wise guests go home. The fourth bowl is ours no longer but belongs to arrogance, the fifth to uproar, the sixth to prancing about, the seventh to black eyes, the eighth brings the police, the ninth belongs to vomiting, and the tenth to insanity and the hurling of furniture.
HOW DOES ALCOHOL CAUSE VIOLENCE?

1. Reduced cognitive ability after 2 drinks
2. Disinhibition
3. Temporality (focussing on the moment)
   – No thought of consequences
4. Obsessional thinking
5. Poor interpretation of social cues
THE BRAIN

Frontal Lobe (Prefrontal Cortex)
"Someday, when our pre-frontal cortices are fully developed, we'll look back on this and shake our heads."
WHO IS ALCOHOL MORE LIKELY TO AFFECT?

• Alcohol ↑ aggression for persons with higher levels of:
  ➢ dispositional aggressiveness (Barnwell, Borders, & Earleywine, 2006),
  ➢ trait anger (Parrott & Zeichner, 2002),
  ➢ rumination (Borders, Barnwell, & Earleywine, 2007),
  ➢ sensation seeking (Cheong & Nagoshi, 1999)
  ❏ Low emotional control (Miller, Hobbs et al, 2013)
PRE-CURSERS, MEDIATORS AND MODERATORS

• Impulsivity
• Desensitization
• Patriarchy
• ‘Masculinity’
WHAT DOES MASCULINITY MEAN?

• Aggression (couched in terms of either violence or desire to win)
• Impulsivity
• Narcissism
• Dislike or fear of homosexuals, especially being seen as one
• Risk-taking (or sensation seeking),
• Playboy (or desire to procreate as widely as possible), and
• Power over women
VICTIMS (STREET)

Similar psych profiles (in tradies)

• Less trait anger, though still high
• Heavy drinking played much more significant role in predicting physical aggression (up to 8x)
• Not significant difference to perps for verbal aggression

• But also, remember effects of alcohol on other victim psychological profiles
ALCOHOL USE AND FDV

Associations

• Any drinking day:
  – 8 times higher odds of male-to-female violence
  – 11 times higher odds of SEVERE male-to-female violence.

• Heavy drinking days:
  – 19 times higher odds of SEVERE male-to-female violence
### Table 47 Alcohol use at the most recent incident (n = 2278)

<table>
<thead>
<tr>
<th>Alcohol Involvement</th>
<th>IPV % (n)</th>
<th>FV % (n)</th>
<th>Other violence % (n)</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent&lt;sup&gt;b&lt;/sup&gt; (any)</td>
<td>10.2 (97)</td>
<td>3.3 (10)</td>
<td>16.1 (165)</td>
<td>***</td>
</tr>
<tr>
<td>I was drinking but not drunk</td>
<td>6.7 (64)</td>
<td>2.0 (6)</td>
<td>11.4 (117)</td>
<td>**</td>
</tr>
<tr>
<td>I was drunk</td>
<td>3.2 (30)</td>
<td>0.3 (1)</td>
<td>4.3 (44)</td>
<td>**</td>
</tr>
<tr>
<td>I believe alcohol was added to my drink without my consent</td>
<td>0.5 (5)</td>
<td>1.0 (3)</td>
<td>0.5 (5)</td>
<td>ns&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Other person&lt;sup&gt;c&lt;/sup&gt; (any)</td>
<td>30.5 (290)</td>
<td>27.1 (81)</td>
<td>25.9 (266)</td>
<td>ns</td>
</tr>
<tr>
<td>The other person(s) had been drinking but wasn’t drunk</td>
<td>10.8 (103)</td>
<td>9.4 (28)</td>
<td>8.1 (83)</td>
<td>ns</td>
</tr>
<tr>
<td>The other person(s) was drunk</td>
<td>19.6 (187)</td>
<td>17.7 (53)</td>
<td>18.0 (185)</td>
<td>ns</td>
</tr>
<tr>
<td>Both consumed alcohol</td>
<td>7.0 (67)</td>
<td>1.0 (3)</td>
<td>9.2 (94)</td>
<td>***</td>
</tr>
<tr>
<td>Either consumed alcohol</td>
<td>33.6 (320)</td>
<td>29.4 (88)</td>
<td>32.8 (337)</td>
<td>ns</td>
</tr>
</tbody>
</table>

**Notes.** *p < .05  **p < .01  ***p < .001  ns = non-significant.  <sup>a</sup>Analyses include cells with expected count < 5, Fisher’s Exact Test is reported.  <sup>b</sup>Three respondents indicated that they were drunk and that they believe alcohol was added to their drink without their consent;  <sup>c</sup>Two respondents indicated that the other person(s) were both ‘drinking but not drunk’ and ‘drunk’ and involved multiple persons other than the respondent.
PUBLIC HEALTH RESPONSES

Most effective (Babor et al, 2010)

• Availability (trading hours, density)
• Access (price)
• Advertising
MAJOR EVENTS IN TOBACCO CONTROL, PRICE, AUSTRALIA, 1906 TO 2010, (GMS PER PERSON 15+)

- Publicity by health groups from mid-1960s
- State Quit Campaigns from 1983
- Smokefree workplaces from 1986
- New health warnings 1987, 1995 and 2006
- National Tobacco Campaign from 1997
- Smokefree public places from late 2000

Bye bye, Brands. Hello smoking horrors.
ALCOHOL AVAILABILITY

• Increases in the number of alcohol outlets per capita has been linked with higher rates of:
  — Assault (Yu et al., 2008; Livingston, 2008)
  — Domestic violence (McKinney et al., 2009)
  — Crime in general (Ingemann-Hansen & Brink, 2004)
ALCOHOL AVAILABILITY

• Restrictions on alcohol availability in terms of shorter licensee opening hours has been associated with decreases in such factors as:
  – Overall alcohol consumption (Norström & Skog, 2005)
  – Homicide (Dualibi, et al., 2007)
  – Drink-driving (Norström, 2003)
WHAT WORKS?

Reduced trading hours-Newcastle

Closing venues earlier (but not precinct lockouts)

Figure 1. Assaults per quarter, January 2001–March 2013, in central business district (CBD, intervention area) and Hamilton (control area).
**IMPACT ON DRINKING CULTURE?**

- Interviews commenced in Newcastle at 9pm,
- Could not start in Geelong until 11:30pm

<table>
<thead>
<tr>
<th>Money spent tonight ($)</th>
<th>Geelong</th>
<th>Newcastle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–20</td>
<td>44.8%</td>
<td>35.2%</td>
<td>39.6%</td>
</tr>
<tr>
<td>21–50</td>
<td>27.7%</td>
<td>30.1%</td>
<td>29.0%</td>
</tr>
<tr>
<td>51–100</td>
<td>16.7%</td>
<td>21.8%</td>
<td>19.4%</td>
</tr>
<tr>
<td>101–200</td>
<td>7.5%</td>
<td>8.4%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>
### BENEFIT?

Number of licensed premises in Newcastle CBD 2008 – 2015

<table>
<thead>
<tr>
<th></th>
<th>March 2008</th>
<th>March 2013</th>
<th>July 2015</th>
<th>% increase 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotels</td>
<td>13</td>
<td>17</td>
<td>23*</td>
<td>77%</td>
</tr>
<tr>
<td>Registered Clubs</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>stable</td>
</tr>
<tr>
<td>On Premises</td>
<td>41</td>
<td>66</td>
<td>98</td>
<td>140%</td>
</tr>
<tr>
<td>Packaged Liquor</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>64</strong></td>
<td><strong>94</strong></td>
<td><strong>134</strong></td>
<td><strong>110%</strong></td>
</tr>
</tbody>
</table>
WHAT WORKS?

Pricing measures

• 10% increase on average MINIMUM PRICE (Canada):
  – 19.5% ↓ in alc-related traffic offences
  – 18.5% ↓ in property crimes
  – 10.4% ↓ violent crimes (incl DV)
EXCISE AND SALES ALCOHOL TAX

• Wagenaar, et al., 2009: 1003 associations in 112 independent studies. Benefits include:
  • Excise and sales taxes on alcohol affect the entire population.
  • Higher alcohol prices have also been associated with lower rates of alcohol-related harm, including:
    • Traffic accidents.
    • Assault.
    • Domestic violence.
    • Rape.
    • Homicide.

– Also extremely cost-efficient in terms of:
  • low short-term cost of amending alcohol policy.
## WHAT WORKS?

**Pricing measures - Alcopops tax**

<table>
<thead>
<tr>
<th>Beverage type</th>
<th>Million standard drinks consumed 2007</th>
<th>Million standard drinks consumed 2008</th>
<th>Difference in million standard drinks</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTDs</td>
<td>348</td>
<td>257</td>
<td>-91</td>
<td>-26.1</td>
</tr>
<tr>
<td>Beer</td>
<td>886</td>
<td>899</td>
<td>13</td>
<td>1.5</td>
</tr>
<tr>
<td>Wine</td>
<td>797</td>
<td>776</td>
<td>-21</td>
<td>-2.6</td>
</tr>
<tr>
<td>Spirits</td>
<td>313</td>
<td>348</td>
<td>35</td>
<td>11.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2344</strong></td>
<td><strong>2280</strong></td>
<td><strong>-64</strong></td>
<td><strong>-2.7</strong></td>
</tr>
</tbody>
</table>

Source: Chikritzhs et al, 2009, MJA
ALCOHOL ADVERTISING

• Exposure to alcohol promotion has been linked with:
  – Increased under-aged drinking (Hastings et al., 2005).
  – Increased consumption in any session (Engels et al., 2009).
  – Alcohol-related violence (Casswell & Zhang, 1998).

• Earlier initiation of drinking and greater levels of alcohol consumption is associated with possession of alcohol brand merchandise (e.g. Bundy bear/Jim Beam cap) (McClure et al. 2009).
WHAT WORKS

Enforcement/surveillance data sharing
Violent venues register

Source: BOCSAR
WHAT DEFINITELY DOESN’T WORK

Psycho-educational campaigns

- ‘Boomerang effect’
A RESPONSE FRAMEWORK

A national strategic approach

- ALL forms of violence
- Across the life-course
- Across levels of prevention
## A RESPONSE FRAMEWORK

<table>
<thead>
<tr>
<th>Primary</th>
<th>Ante-natal</th>
<th>Childhood</th>
<th>Adolescence</th>
<th>Adulthood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reduce maternal substance use</td>
<td>Reduce alcohol/drug supply</td>
<td>Enforcement</td>
<td>Education regarding the impacts of substance use</td>
</tr>
<tr>
<td></td>
<td>Comprehensive education and labelling campaigns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Education should be a curriculum item</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduce alcohol advertising</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parenting interventions aimed at whole-of-family</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Pre-natal support for vulnerable parents</th>
<th>Strengthening Families</th>
<th>Therapeutic interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Community nursing visits</td>
<td>Peer Mentoring</td>
<td>Social and Emotional Competence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tertiary</th>
<th>Family Drug Court/Mandated Treatment</th>
<th>Psychological interventions</th>
<th>Situational interventions -restricting trading hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child protection (including abstinence conditions)</td>
<td>Social and Emotional Competence Training</td>
<td>Swift and Certain Justice Offender rehabilitation -SADV</td>
</tr>
</tbody>
</table>
POLITICS

We know what works, but how do we get it implemented?

• Sydney/NSW: 3am close, 10pm packaged liquor
• QLD: 2am/3am close
• VIC: changes to late night licence ‘freeze’
• Extension of PTV to 24 hour service (>$100m)
CAN WE MAKE PROGRESS?

We have never had more or better evidence

• “Public health is the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention and detection and control of infectious diseases.”
THANK YOU

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