NDARC
National Drug & Alcohol Research Centre

The Difference is Research

Community-based interventions for alcohol consumption & harm: where are we at?

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Overview

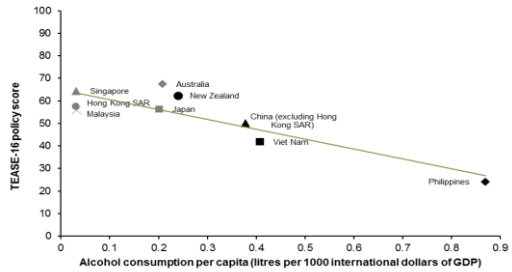
- Rationale for community action
- Historical context for community action
- Does community action work?
- Exploring the balance between community action and regulation

Rationale for community action

- Two ways to reduce risky drinking (& associated harms):
  i. Govt regulation to restrict alcohol availability
  ii. Reduce demand for alcohol:
    - Govt regulation and prevention (e.g. taxes, mass media)
    - SBI in defined settings
    - Community action across multiple settings/stakeholders
- What is community action?
  - A process in which community stakeholders define their own needs and determine the actions required to meet those needs

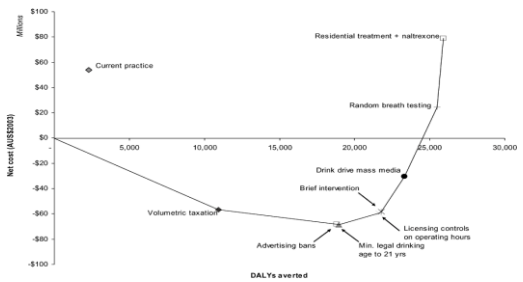
Govt regulation related to mean cons

Carragher, Shakeshaft et al. 2014, WHO Bulletin



Govt regulation seems cost-effective

Cobiac et al. 2009, Addiction



Govt regulation seems to reduce binge harms

- Newcastle (NSW) example:
  - Binge drinking - lockouts, closing at 3am *(Kypri et al., Addiction, 2012)*
- Kings Cross, Sydney (NSW) example:
  - Binge drinking - lockouts, cease service at 3am for 2 hours *(Faulde et al. MJA, 2015)*

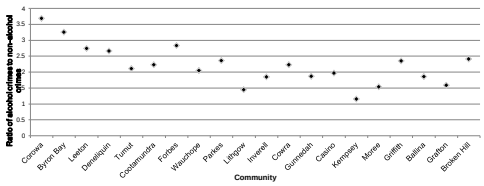
Govt regulation

- Cautions!
  - Economic modelling depends on data inputs
  - Evidence mostly from uncontrolled, retrospective analysis in single locations
  - Not clear what effective mechanisms are (eg.competing evidence about lock-outs)
  - Govt regulation alone unlikely to be sustainable even if effective (blunt instrument): eg. prohibition in US in 1920s
  - Impact of govt regulation is uneven…

Impact of govt regulation is uneven

Breen, Shakeshaft et al. 2011

- Alcohol related crime, 2001-2005

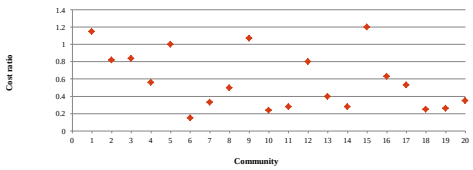


- Higher SES communities = more alcohol crime
- More hotels/clubs = more crime

Impact of govt regulation is uneven

Czech, Shakeshaft et al. 2010

- Alcohol related traffic crash costs, 2001-2005



- More young males = more alcohol crashes
- *Also true for % of risky lifetime and binge drinkers (Breen et al, 2010)*

SBI ?? Good evidence for short term impact

- Community-based D&A settings
  - Randomised trial showed SBI ~ to CBT, but SBI more cost-effective *(Shakeshaft et al., 2002, Addiction)*
- A&E
  - Reduces av cons at 6-weeks (not injury), but not sustained at 3 months *(Havard, Shakeshaft, et al. RCT, Alc: Clin Exp Research, 2011, 2015)*
- Primary care
  - SBI reduces av cons by ~25% *(Kaner et al. Cochrane Reviews, 2007; Bertholet et al, 2005)*
  - S more CE than BI, ***but*** SBI delivered by GPs ***not*** a good population-level strategy *(Navarro, Shakeshaft et al. 2011)*

Community action

- Historical context *(Midford & Shakeshaft, in press)*
  - 19th century:
    - Rise of the temperance movement in the US
    - Formation of the American Temperance Society, Boston 1826
    - Spread to Europe, Britain (& colonies)
    - Taken up most enthusiastically in English speaking & Nordic countries
    - Initially moderation, but as influence increased became more prohibitionist and less interested in working with individual communities
    - Alcohol itself the problem (not interaction with individuals/communities) so focus on reducing or eliminating alcohol use

Community action

- Historical context:
  - 20th century:
    - Prohibition introduced in Nordic countries, Canada, Soviet Union (and Czarist Russia), US (Volstead Act) in first 2 decades
    - Britain, Australia & New Zealand restricted hours of sale in WW1
    - Prohibition repealed in 1930s in US, mostly due to associated crime / corruption
    - Focus back to individual drinkers (addiction, disease/sick, genetics) – spread through groups like AA . Early identification/treatment of high risk inds
    - 1970s re-emergence of wider health and social problems: the way communities are organised produces particular alcohol problems
    - 1980s: av cons across population related to the % of high risk inds (Rose); the majority of alcohol harm from moderate drinkers (Kreitman)

Community action

- Historical context:
  - 20th century:
    - 1990/2000s – Holmila's idea that altering the drinking of individual high risk drinkers won't reduce population harms because the community dynamics that created the problem are unchanged
    - The idea of modifying drinking across communities popularised in US and internationally in 1990s: 20 community trials in US since 1995 (cf 2 before)
    - Holder articulated the concept of communities as systems
    - Finland and Sweden had to adopt one-market policies of EU from 1995 (cf state control): 4 Swedish and 2 Finnish trials. 3 Oz & 4 NZ trials
  - 21st Century:
    - Potential benefit of community action well-articulated, but evidence-base and routine uptake weak

Community action – evidence base

- Few rigorous evaluations of community action for alcohol harms:
  - 7 randomised trials to date
  - 6 in USA; 1 in Australia (NSW)
  - Unit of randomisation & intervention: 4 schools, 2 campuses, 1 community
- Alcohol Action in Rural Communities (AARC):
  - Only cluster RCT where community is the unit of randomisation & analysis
  - Only community-wide economic analysis (cost benefit)
  - Only randomised trial to use routinely collected data to measure community-level impacts
  - *Shakeshaft et al., PLoS Medicine, 2014*

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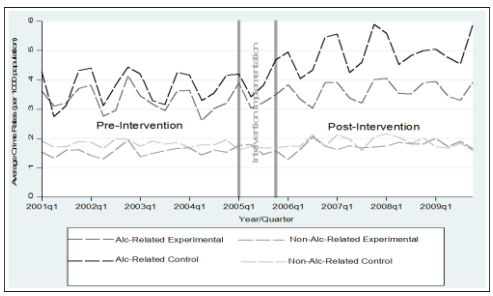
- 13 interventions in 3 categories, 2005 - 2009:
  1. Better use of data (routinely collected and survey):
     - Engage with communities and agencies (eg. DET, LHDs, AMSs)
     - Provide ongoing feedback to key stakeholders on progress
     - Provide ongoing feedback to communities through local media advocacy
     - Target high-risk weekends (mayor, local media, police, pubs/clubs)
  2. High-risk groups / settings:
     - Workplaces
     - High schools
     - Sports clubs
     - Alcohol dependent drinkers (via GPs)
  3. More frequent screening and brief/early intervention:
     - GPs
     - Pharmacies
     - Hospital emergency departments
     - Aboriginal Medical Services
     - Web-based

AARC

- Main outcomes

Outcomes likely due to AARC (≥ 94% chance)	Outcomes probably due to AARC (≥ 90% chance)	Outcomes unlikely due to AARC (< 90% chance)
20% reduction in average consumption	30% reduction in single occasion risky drinkers	14% and 9% reductions in alcohol-related assaults and malicious damage
42% reduction in alcohol-related verbal abuse	31% reduction in long-term risky drinkers	Alcohol-related traffic crashes
33% reduction in alcohol-related street offences		Hospital admissions for alcohol dependence
58% *increase* in hospital admissions for alcohol abuse		

AARC



AARC

- Cost-benefit analysis

Benefits	Lower estimate*	Upper estimate*
Savings from reduced alcohol crimes + traffic crashes	$ 735,256	$ 735,256
Community willingness to pay (value) - survey data	$ 923,173	$1,394,009
Net benefit	$1,658,429	$2,129,265
Costs		
Cost of AARC interventions	$ 608,102	$ 608,102
Cost of additional alcohol-related hospital admissions	$ 605,910	$ 605,910
Net costs	$1,214,012	$1,214,012
Benefit - cost	$ 444,417	$ 915,253
Benefit cost ratio	1.37	1.75

*Households' willingness to pay for 10% reduction in alcohol harm: $10 payment scale (lower, $35.43pa) vs $25 payment scale (upper, $53.50)

AARC

- AARC's methods are rigorous, meaning we have high confidence that:
  - there was an intervention effect on some outcomes
  - the size of the effect was significant
  - the effect was due to the intervention
  - the economic and social benefits of the intervention outweighed its costs
  - the results are generalisable to other rural communities
- But:
  - Unsure if the intervention activity has not been sustained over time
  - Unsure if the intervention impact has been sustained over time
  - Little research capacity building in AARC communities
  - Uneven impact across communities

Putting it together

- Govt regulation:
  - Can reduce average consumption
  - Can reduce binge consumption and serious harms (↓ availability, cf tax)
  - Impact uneven, regulation is contested (competing interests) & equity?
- Community action
  - Can reduce average consumption and probably binge consumption
  - Can reduce lower level harms; probably economically efficient
  - No impact on serious harms or drink driving, sustainable?
  - Highly acceptable to communities *(Czech, Shakeshaft et al, 2010)*

Putting it together

- Govt regulation needs to set the framework:
  - Negotiation between being permissive and restrictive
  - Tax (price), availability, advertising – targeted at different problems
- Community action identifies and targets particular problems in particular communities:
  - Negotiation between stakeholder interests
  - Data based approach to defining outcomes and measuring impacts
  - Evidence informed intervention strategies (not just what's easiest)
  - Improving responses to high-risk individuals:
    - SBI as a clinical (not population) strategy
    - Kilmer et al: target drinking, not associated behaviours
    - Better co-ordination between services(eg. re-integration after rehab)

Putting it together

- Need better partnerships between researchers and govt / policy makers + researchers and communities:
  - Determine likely impact of policy options and evaluate what gets implemented
  - Need practical models to illustrate how such partnerships could work
  - Clear role delineation: researchers do research, govt does policy, communities know what will/won't work locally

Not there yet!

Daily Liberal, Dubbo, 27/11/12

Daily Liberal

Community action on alcohol consumption finds succe in west

Nov 27, 2012, 4 a.m.

PARKES and Forbes are among NSW towns reported to be getting on top of their booze blues because of a world-leading research project.

The five-year and multi-million-dollar Alcohol Action in Rural Communities (AARC) project tested a community action approach to reducing risky alcohol consumption, too often resulting in harm.

NSW Minister for Western NSW, Mental Health and Healthy Lifestyles, Kevin Humphries, yesterday said the project had been effective in reducing alcohol consumption in rural communities, as well as rates of binge-drinking, alcohol-related crime and residents' experience of alcohol abuse.

He said the project demonstrated communities had an important role to play in complementing state and federal government interventions.

"When given the opportunity, local communities are prepared to work effectively with their local government, health services, police, schools and researchers to formulate and establish effective evidence-based solutions," the minister said.

The Foundation for Alcohol Research and Education (FARE) provided $2.4 million to the project that comprised 13 evidence-based, community-led interventions.

It is reported to have been the largest and most rigorous project of its kind in the world.

AARC was a partnership between communities, local government, government agencies, FARE, the University of New South Wales and the University of Newcastle.