

Cost-effectiveness of Dry Areas Intervention Working Progress

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Outline

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- ACE Methodology
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- Definition of the Intervention
- Intervention pathway
- Current practice
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- Efficacy/effectiveness of Intervention
- Modelling health outcomes
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Background

- Aboriginal people less likely to drink (42%) cf. to non-indigenous (62%)
- However, they drink at more hazardous levels
- Alcohol is major risk for:
 - CVD; mental disorders; diseases of the liver & pancreas; diabetes; and cancer.
 - Injury - car accidents; falls; burns; and suicide
 - Domestic violence; family breakdown; and anti-social behaviour
 - Absenteeism and low productivity at work

Assessing Cost-Effectiveness (ACE) studies in Australia

- Pilot project in cancer prevention (2000)
- ACE-Heart Disease (2000-2003)
 - 20 + interventions for prevention of coronary heart disease
- ACE-Mental Health (2001-2004)
 - 20 + interventions for depression, schizophrenia, anxiety and ADHD
- ACE-Obesity (2004-2005)
 - Focus on childhood interventions
- ACE-Prevention (2005-2009)
 - 100 interventions prevention NCD + 50 interventions cure/infectious disease control
- ACE-Alcohol (2006-2007)
 - AERF funded
 - Around 10 interventions to reduce harm from alcohol misuse Indigenous and non-Indigenous
 - public drinking bans / dry areas first Indigenous application

Context: ACE-Prevention

- Based on 5 year \$3.2m NHMRC Health Services Research Grant in Health Economics awarded 2004, with emphasis on policy relevance
- Key investigators: Profs – Ian Anderson; Rob Carter; Theo Vos; and Chris Doran
- ACE-Prevention Organisational Structure:
 - Project Steering Committee
 - Indigenous Steering Committee
 - Technical Advisory Panels
- The context focuses on assisting decision-makers choose the optimal cost-effective mix of preventive interventions within their available health budgets



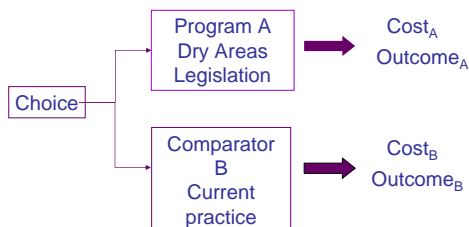
ACE Methods: Decision Context

- The decision context for all ACE projects is Cost-effectiveness or 'value-for-money' in the use of limited 'health sector' budgets. Thus:
 - not 'all-of-government' budgets are considered
 - does not stop inter-sectoral effects of interventions from being considered.
- There are two key levels of policy advice involved:
 - ranking interventions across both non Indigenous and Indigenous settings; and
 - ranking interventions within Indigenous budgets (where Indigenous specific approaches could be used).



What is cost-effectiveness analysis?

- CEA is a comparative analysis of alternative courses of action in terms of both their costs and consequences



Dry Areas Intervention: Definitions

- Dry Areas intervention was chosen by Technical Advisory Panel for ACE-Alcohol as a priority for assessment
- Restricted areas
 - Can be grouped into: **alcohol free zones & dry areas**
 - Both of these groupings embody:
 - Set of regulations backed by legislation
 - Measures for declaration and enforcement
 - Aim is to limit alcohol: availability; consumption; and harm
- Alcohol free zones: Prohibited in a zone
 - Public park or sports grounds.
 - May be confined to certain events or time
- 'Dry' areas: whole community, private home or public area declared 'dry', sometimes with 'wet spots'



Models of Dry Area Interventions

- Statutory model - SA:
 - Commission- not obliged to consult the community;
 - Policing is the responsibility of the Govt
- Community controlled model – WA:
 - Councils/community is empowered to declare areas 'dry'
 - Policing is responsibility of the community
- Complementary model – NT:
 - Community requests declaration
 - Commission is obliged to consult the community
 - Policing is the responsibility of the Govt
- NB: Legislative revisions may have occurred over the years in SA, WA & NT blurring above models

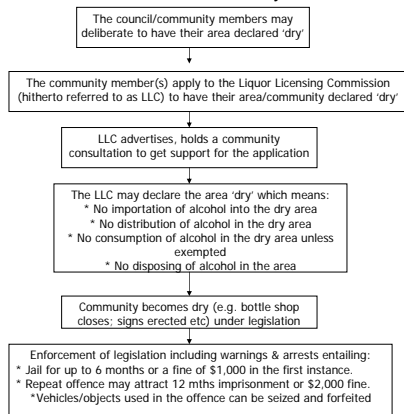


The Dry Area Intervention: NT Model

- NT model – was chosen as it ensures:
 - Community control – Key issue in National Strategic Framework for ATSIH-2003
 - Sustainability of enforcement thru the govt
- Applied in Aboriginal homelands
 - Enforced by the Police and Liquor Commission
 - No importing/distributing/consuming/disposing alcohol
 - Penalties: Jail terms; fines; and vehicles forfeited



Intervention Pathway



Current Practice

- Comparator is current practice
 - Degree of 'dry area' status in NT, SA, WA & QLD
- NT has 104 dry areas – mainly Aboriginal lands
- QLD has an NT model with 14 dry areas
- WA & SA have different dry areas models
- NSW, VIC, ACT & TAS do not have dry areas



Costs & Cost-offsets

- Health sector perspective
- Costs associated with the community consultations:
 - Community deliberations to prepare an application
 - Advertisements; Venue costs; Submissions
- Costs associated with the declaration of 'dry area':
 - Liquor licensing administrative costs
 - The erection of signs; Alcohol-related job losses
- Costs associated with legal enforcement including:
 - Training of police officers; Arrests and prosecution of offenders
 - Costs of liquor enforcement officers; Vehicle seizures/litigation
- Downstream costs
 - Liquor smuggling;
 - Migrations out of the community
- Cost-offsets
 - Costs associated with reduction in alcohol consumption – Domestic violence; productivity; community cohesion; rape; assaults; etc



Effectiveness of Dry Areas

- Use d'Abbs (1987) evaluation data of NT model
 - The only Australian study with quantitative data
- Alcohol consumption outcomes
 - 'regular consumption of alcohol' (at least one day a week)
 - Reduced significantly by 33%(M) & 38%(F)
- Other outcomes:
 - public drunkenness – not sig reduced, except in yr2;
 - road accidents – no change
 - child malnutrition – no change.
- Effectiveness of the Intervention
 - Assume NT, WA & SA models are equally effective



DALY

- Disability-adjusted Life Year
- Future stream of life lost due to premature mortality based on life expectancy:
Years of Life Lost (YLL)
- +
- Future loss of 'healthy' life arising from new cases of disabling conditions:
Years Lived with Disability (YLD)



Modelling Outcomes

- Benefit Measure is in 2 stages:
 - DALYs; &
 - 2nd stage filters
 - Equity; acceptability; feasibility; and strength of evidence
- Modelling DALYs averted
 - Preferable outcome is alcohol use in g/week
 - D'Abbs outcome – regular consumption (≥1 day/week)
 - Propose to categorise drinkers based on national statistics in the National ATSI Health Survey 2004/05:
 - low;
 - hazardous; and
 - harmful users
 - Then reduce numbers in each category based on the d'Abbs outcome



Concept of benefit: Indigenous

- ACE Prevention Indigenous Steering Committee consider the DALY to be one measure of benefit
- Thus, DALY is clearly not adequate to capture all pertinent issues in Aboriginal health
- Important dimensions identified in Aboriginal health include:
 1. Individual health gain
 - DALY Consistent
 - Individual Empowerment
 2. Community health gain
 3. Cultural Security
 4. Equity
 - Access to Quality Services
 - Differentials in Population Health Outcomes



Results

- This is a working progress
- Dry Areas epidemiological model has been developed with outcomes measured in DALYs.
- The Dry Area Intervention pathway established and costed
- Next step is to compute cost-effectiveness results
- Aboriginal concept of benefit needs further work
 - Uses Options Appraisal framework based on previous work done in SA community health study done by
 - We have identified and agreed on dimensions associated with concept of benefit
 - Next step is developing descriptors and then calibrating the concept of benefit instrument



Summary of key issues

1. Discussion on the target population for the intervention and associated definition of "current practice". That is, only NSW or increased coverage in existing dry areas states as well.
2. Discussion and advice on the assumption of equal effectiveness of three Australian models.
3. Discussion of best health benefit scenario to form base run of the model
4. Advice on any other available information/evidence to inform the analysis.
5. Would it be possible to update the evidence base for dry areas legislation?

