Patterns and prevalence of alcohol and other drug use in rural Australia

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Rural Australia

• Stressful & physically demanding living conditions
• Limited access to healthcare and other resources
• Poorer health outcomes
• Higher rates of:
  - Mortality
  - Unemployment
  - Suicide
  - Mental illness
  - Injury
  - Chronic illness
  - FDV
  - AOD use
How (is it different)
(jurisdictional, regional/remote, SLA; also by risk factors eg SES, occupational (such as farmers), or Indigeneity)

Why (is it different)

What (can be done)
“People with drug and alcohol problems tends to cluster along the fault lines of society”.
EQUALITY

EQUITY
What we believe to be the ‘cause’ of problems, shapes our views about potential ‘solutions’.

*Personal beliefs and views are often inconsistent with the evidence in this area.*
1. What differences exist between rural and metropolitan areas for:
   a) Risky drinking?
   b) Cannabis use?
   c) Methamphetamine use?
   d) Prescribed opioids?

2. Does prevalence vary by state/territory and has it changed over time?

3. What are the implications for treatment services, policy and funding?
Limited data

- Little data available on alcohol and drug use in rural vs metropolitan areas
- Few studies examined trends over time
- Media and political rhetoric common but not evidence-based

>>> Unable to plan effective treatment services and policy responses
3. Pharmaceutical Benefits Scheme (PBS) and Pharmaceutical Sales Data
4. Periodic Studies
5. National Minimum Data (NMD) AOD specialist services
Measures

NDSHS

- Short-term risky drinking
  (5 or more standard drinks in a single occasion at least monthly)
- Recent (past 12 months) cannabis use
- Recent (past 12 months) methamphetamine use

Wastewater data

Collected every 3 months

“Remoteness” based on Australian Standard Geographical Classification:

1. Major cities
2. Inner regional
3. Outer regional
4. Remote
5. Very remote
MH services by jurisdiction

MBS-subsidised mental health-related GP service and patient rates, per 1,000 population, by state and territory, 2013–14


MBS-subsidised psychologist services per 1,000 population, 2013–14


MBS-subsidised psychiatrist services per 1,000 population, 2013–14


Mental health related prescriptions per 1,000 population, 2013–14


Public hospital emergency department mental health-related occasions of service per 10,000 population, 2012–13

Strong (but not inevitable) relationship between AOD use and mental health problems
1. Alcohol
Risky drinking x state/time

Risky drinking by rurality

Short-term risky drinking (5 or more standard drinks in a single occasion at least monthly) by geographical location

Lifetime risky drinking over time

Abstainers: Not consumed alcohol in the previous 12 months.
Lifetime risky drinkers: On average, had more than 2 standard drinks per day.

Source: Table 8.1.

Figure 8.2: Risk of alcohol-related harm over a lifetime and proportion of people abstaining from alcohol, people aged 14 or older, by remoteness area, 2010–2016 (%)

Short-term risky drinking over time

Figure 8.3: Risk of alcohol-related harm from a single drinking occasion (at least monthly)(a), people aged 14 or older, by remoteness area, 2010–2016 (%)
Waste water analyses: alcohol

Figure 16: Estimated average consumption of alcohol by state/territory. A standard drink is 10.0 g or 12.5 mL.
Farmers (M&F):

- as likely to consume alcohol as general population
- more likely to drink >weekly compared to general population
- more likely to binge drink than general population.

1. Variations in SA Country PHN pop drinking at monthly risky levels:

SA40102 Adelaide Hills (43%) – highest for monthly & yearly risky drinking
SA405 Barossa (40%)
SA406 South Australia – Outback (35%)
SA407 South Australia – South East (23%).
2. Cannabis
Cannabis use by jurisdiction over time

Recent (past 12 months) cannabis use by geographical location

Source: Australian Institute of Health and Welfare (AIHW).
2016 National Drug Strategy Household Survey

* Estimate has a relative standard error of 25% to 50% and should be used with caution
Illicit drug use (SA Country PHN)

1. **SA3* – recent cannabis use:**
   - **18%** Adelaide Hills (SA40102)
   - **10%** Eyre Peninsula & Sth West (SA40601)
   - **9%** in Murray & Mallee (SA40703).

2. **Cannabis prevalence among 12-17 year olds in last 12 months ranged from 6% (SA407 SA–East) to 13% (SA40102 Adelaide Hills).**
3. Methamphetamine
Methamphetamine use is higher among rural/remote populations compared to regional areas and major cities.

Rates of methamphetamine use are twice as high in remote/very remote areas (2016 NDSHS).

- 18–24 year olds in rural areas are more likely to report recent ice use than their city or regional counterparts.
- Concentrated among blue collar males aged 18-24 years.

Recent (past 12 months) methamphetamine use by geographical location over time

Source: Australian Institute of Health and Welfare (AIHW).
2016 National Drug Strategy Household Survey

* Estimate has a relative standard error of 25% to 50% and should be used with caution
Methamphetamine use by jurisdiction over time


* Estimate has a relative standard error of 25% to 50% and should be used with caution
Waste water analyses: methylamphetamine

Figure 17: Estimated average consumption of methylamphetamine by state/territory.

4. Pharmaceutical Opioids (PO)
Pharmaceutical Opioid (PO) Use

- Considerable geographic variation in PO use (but not universally consistent)
- Higher in:
  - less populated areas
  - areas with more males and older people
  - more low income households
  - More jobs involving physical labour.

- PO use increased with remoteness in NSW, Tas, Vic (but not in all jurisdictions)
- In ‘very remote’ NSW PO use 8 times greater than in major cities.
- Association is stronger for prescription opioids than OTC opioids.

Source: Degenhardt et al., 2016
Opioid use & rurality

Figure 1. Total opioid utilisation per person (oral morphine equivalent (OME) mg) by Statistical Local Area, 2013. Note: This map shows sub-jurisdictional variation in utilisation at the unit of Statistical Local Areas (SLAs). As can be seen, although the tables previously show in opioid utilisation across jurisdictions, there is also considerable variation within jurisdictions in the extent of opioid utilisation.

Source: Degenhardt et al. 2016.
PBS dispensing by rurality

Source: Australian Commission on Safety and Quality in Health Care: Australian Atlas of Healthcare Variation
# Rurality as a predictor of opioid use

Table 4. Association of remoteness area with total retail opioid utilisation (measured in oral morphine equivalent (OME) mg) per person by, 2013

<table>
<thead>
<tr>
<th>Unstandardised beta (SE)</th>
<th>Strong prescription opioids$^\dagger$</th>
<th>Other prescription opioids$^\ddagger$</th>
<th>Total over-the-counter opioids$^\S$</th>
<th>Total prescription opioids</th>
<th>Total opioids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major cities</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>Inner regional</td>
<td>206.83 (73.12)**</td>
<td>64.55 (27.10)*</td>
<td>-8.30 (5.25)</td>
<td>271.38 (97.76)**</td>
<td>263.08 (102.11)*</td>
</tr>
<tr>
<td>Outer regional</td>
<td>298.74 (69.71)**</td>
<td>130.18 (25.84)**</td>
<td>-0.80 (5.01)</td>
<td>428.93 (93.20)**</td>
<td>428.13 (97.34)**</td>
</tr>
<tr>
<td>Remote</td>
<td>515.42 (118.67)**</td>
<td>294.10 (43.99)**</td>
<td>22.35 (8.52)**</td>
<td>809.52 (158.66)**</td>
<td>831.88 (165.71)**</td>
</tr>
<tr>
<td>Very remote</td>
<td>471.14 (107.18)**</td>
<td>216.14 (39.73)**</td>
<td>20.13 (7.70)**</td>
<td>687.28 (143.31)**</td>
<td>707.41 (149.68)**</td>
</tr>
</tbody>
</table>

Results of linear regressions, with remoteness area predicting oral morphine equivalent rate per person for each type of opioid.

$^\dagger$Strong prescription opioids (morphine, oxycodone, buprenorphine, methadone, fentanyl and hydromorphone).

$^\ddagger$Other prescription opioids (prescription codeine, dextropropoxyphene, tramadol and tapentadol).

$^\S$Over-the-counter opioids (codeine products available at pharmacies without a doctor’s prescription).

*p < 0.05;

**p < 0.01;

***p < 0.001.

Source: Degenhardt et al. 2016.
Waste water analyses: oxycodone

Figure 22: Estimated average consumption of oxycodone by state/territory.

Waste water analyses: fentanyl

Figure 23: Estimated average consumption of fentanyl by state/territory.

Prescribed opioid use (Adelaide PHN)

SA3 areas with lower SES = higher dispensing rates:
- Playford (SA40202): highest rate - 3 times higher than Burnside (SA40103)
- Onkaparinga (SA40304) 2nd highest & Salisbury (SA40204) 3rd highest.

Playford (SA40202) 2nd highest opioid dispensing rate of any SA3 in Australia.
Prescribed opioid use (SA Country PHN)

1. SA4 level dispensing rates per 100,000 people:
   - Highest:
     - 94,892 (SA405 Barossa)
   - Lowest:
     - 53,757 (SA40102 Adelaide Hills)

2. SA3 rates:
   - 83,856 (SA40503 Mid-Nth)
   - 2\(^{nd}\) highest Country PHN
   - 3\(^{rd}\) highest in SA.
Summary of use in rural areas

- Rates of AOD use vary by geographical location and state
- High levels of use generally apparent in rural remote areas, compared to cities
- Consistent with other data showing higher levels of risky AOD use in rural areas
  - Lower educational achievement
  - Low SES
  - Higher unemployment
  - Isolation

Deliberate targeting of rural communities by illegal distribution networks (??)
What’s Needed?

1. Prevention
2. Early/brief Intervention
3. Treatment
4. Workforce development
5. Funding models
6. Technology
Need for intervention

• Need for appropriate primary and secondary interventions in rural areas
  ➢ Tailored to at-risk subpopulations

• High levels of use among employed individuals in rural areas
  ➢ Opportunity for prevention and early intervention in workplace settings

• Important role for GPs and other primary care providers
Barriers to treatment in rural areas:

- Engagement and retention
- Limited access to treatment services
- Lack of evidence-based treatment options
- Stigma
- High demand / low capacity
- Lack of anonymity / confidentiality
3.2 Service sector

Nationally, in 2015–16, almost 3 in 5 (57% or 454) AOD treatment agencies were non-government, and these agencies provided almost two-thirds (64% or 132,669) of closed treatment episodes (Figure 3.1). The proportion of non-government agencies has increased since 2006–07 (from 54% to 64%), while the proportion of government agencies has decreased (from 46% to 36%) (Table SA.2).

In New South Wales, the majority of treatment agencies were in the government sector (70%). In the remaining states and territories, most treatment agencies were in the non-government sector, ranging from 63% in South Australia to 100% in Victoria.
Treatment: Principal drug of concern

Principal drug of concern over time

Source: Australian Institute of Health and Welfare (AIHW). Alcohol and Other Drug Treatment Services in Australia 2015/16
Treatment: Alcohol

Treatment episodes for alcohol by state over time

Source: Australian Institute of Health and Welfare (AIHW). Alcohol and Other Drug Treatment Services in Australia 2015/16
Treatment: Cannabis

Treatment episodes for cannabis by state over time

Source: Australian Institute of Health and Welfare (AIHW). Alcohol and Other Drug Treatment Services in Australia 2015/16
Treatment: Amphetamines

Treatment episodes for amphetamines by state over time

Source: Australian Institute of Health and Welfare (AIHW).
Alcohol and Other Drug Treatment Services in Australia 2015/16
Policy context

- National Ice Action Strategy
- National Aboriginal Torres Strait Islander Peoples Drug Strategy 2014–2019
- National Alcohol and other Drug Workforce Development Strategy 2015–2018
- National Tobacco Strategy 2012–2018

It is intended that Australia’s next National Alcohol Strategy will be finalised in 2017, and will act as a sub-strategy of this National Drug Strategy.

In implementing the National Drug Strategy, governments should also consider the National Pharmaceutical Misuse Framework for Action (which expired in 2015).
Other relevant national frameworks

In recognition that the impacts and harms related to alcohol, tobacco and other drugs are far reaching across many sectors, it is important for the aims, priorities and principles of the National Drug Strategy to be reflected and considered in the implementation of other key relevant national frameworks and policies, including:

- *The 5th National Mental Health Plan;*
- *The Indigenous Advancement Strategy;*
- *National Aboriginal and Torres Strait Islander Health Plan 2013–2023;*
- *The Closing the Gap program;*
- *National Strategic Framework for Aboriginal and Torres Strait Islander Mental Health and Social Emotional Wellbeing (2017–2023);*
- *Family and Domestic Violence Strategy;*
- *National Homelessness Strategy;*
- *National Road Safety Strategy 2011–2020;*
- *National Ageing and Aged Care strategies;*
- *National Disability Strategy; and*
- *WHO Framework Convention on Tobacco Control.*
The goals of planning for AOD services

Three goals:

• Equity — such that there is equitable access to AOD services
• Efficiency — the most appropriate mix of AOD services
• Economy — the most cost-effective AOD services.

(Babor, Stenius, & Romelsjo, 2008)
Planning Models

Strategic vs technical

Epidemiological, social indicators, or demands-based = debate

Currently no planning model for rural regions

Gravity models and geo-mapping

Decentralised local models not without limitations
Funding Models

Block funding plays important role:

• to redress market failure such as:
  
in rural areas where lack of scale and remoteness may result in under-provision or competition issues;

for groups less willing/able to engage with service providers (e.g. Indigenous Australians) or who service providers may be reluctant to take on (e.g. those with challenging behaviours)

(Ritter et al. (2014) New Horizons: Review of alcohol and other drug treatment services in Australia)
One option: transfer funds to each state/territory in a single (block) grant. Allocations determined on a formula, taking into account:

- overall rate of AOD problems,
- extent of unmet demand for treatment
- other variables, such as remoteness/rurality and socio-economic disadvantage.

Equity issues could be factored into allocation of funds to each state/territory, consistent with its role to ensure minimum service levels and equity of access to AOD treatment across Australia.

(Ritter et al. (2014) New Horizons: Review of alcohol and other drug treatment services in Australia)
Support practice innovations

• Imperative to invest in new & emerging technologies
• New technologies = opportunities for workers to overcome the tyranny of distance
• Use virtual reality tools to screen, assess & treat clients.
EQUALITY  EQUITY
Thank you

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