

Monitoring the use of alcohol and other drugs in rural Australia

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The misuse of alcohol and other drugs (AOD) is a significant public health issue, and may be associated with health problems, legal costs and a range of other harms for users and the community more widely¹. Accordingly, problematic drug users and their families may require support from a wide range of services, including specialist AOD services, hospitals, GPs and other healthcare providers, as well as welfare and social services¹.

Knowledge of patterns of AOD use and associated outcomes, and how these change over time, are needed to inform clinical and policy responses². However, little is known about the drug use patterns, the associated harms and risk behaviours or illicit drug markets in rural Australia. Understanding of drug trends is largely based on survey and cohort data from major cities and metropolitan areas, which may not be representative of person who use drugs in other regions³. Much of the small body of research that exists regarding drug use in rural Australia is characterized by one-off studies with small unrepresentative samples. Furthermore, scant research has been undertaken in the last decade. Nevertheless, the limited evidence available does point to differences in terms of the patterns of use and harms experienced by rural compared to metropolitan drug users; differences which have important policy and clinical implications.

Findings of the most recent National Drug Strategy Household Survey (NDSHS) indicate that Australians living in remote and very remote areas are twice as likely to have used methamphetamine in the previous 12 months than those living in major cities⁴. Differences have also been noted in terms of patterns of injecting drug use, whereby rural injecting drug users (IDU) have been found to be significantly more likely to report amphetamine as their primary drug⁵ and more frequent amphetamine use⁶, compared to metropolitan IDU. Rural IDU are also more likely to have injected pharmaceutical opioids such as morphine than their metropolitan-based counterparts^{6,7} but less likely to have used cocaine⁷.

It is likely that differences in patterns of illicit drug use reported in rural compared to metropolitan areas reflect difference in illicit drug markets. Amphetamine (including methamphetamine) is manufactured within Australia, including in rural and residential areas, resulting in relative availability^{5,8}. In comparison, heroin is imported to Australia, typically through major ports and airports. It is then distributed from capital cities, meaning it may be difficult, dangerous and/or expensive for rural users to access⁵. Given the generally low availability of heroin in rural Australia, the higher prevalence of use of pharmaceutical opioids is perhaps unsurprising, with such drugs typically accessed illicitly through 'doctor-shopping' and other black-market activities.

Differences have also been noted in terms of service utilisation of rural compared to metropolitan IDU. For example, rural IDU report barriers to accessing needle and syringe programs (NSP) due to a relative scarcity of services, poor public transport, a relative lack of anonymity and reluctance to use NSPs which are collocated with opiate treatment programs⁶. Indeed, rural IDU are less likely to access NSP and more likely to procure their injecting equipment through pharmacies and other IDU⁶. Although accessing injecting equipment through pharmacies is a 'reasonable' option, they are typically not in the position to offer the information, education and support which fixed NSP sites can, including important links to other harm reduction and treatment services⁶. Furthermore, reported rates of needle and syringe sharing for regional participants (31%) and rural participants (29%) are almost double the rates reported for urban participants (16%)⁷.

Patterns of treatment utilization have also been found to differ between rural and metropolitan areas. Analysis of the 2002-2003 New South Wales – Minimum Data Set (NSW-MDS) data showed that treatment presentation rates for primary amphetamine use problems in regional areas were almost double those for Sydney and that 72% of all amphetamine-related treatment presentations occurred outside metro Sydney⁹. Clients from rural and regional NSW present with more complex clinical needs, including greater polydrug use than urban participants ($p < 0.001$) and more commonly

reporting having 'additional drugs of concern' (49.4% compared to 32.9% urban)⁷. Drug and alcohol clients from rural and regional NSW are also significantly more likely to be living with dependent children, to be unemployed and to be experiencing greater psychological problems than their urban counterparts⁷. Barriers to rural and regional treatment have been found to be wide ranging and to include limited access to general health services and drug treatment options, a relative scarcity of services and a limited range of services, distance and isolation (which impacts on client access to services and to the time and costs involved in out-reach service delivery), poor public transport, concerns about confidentiality, concerns about stigma and a relative lack of anonymity^{10,11}. These differences have implications for planning and resourcing in the alcohol and other drug services drug sector, including the provision and design of drug treatment services.

The rationale for establishing a Rural Drug Monitoring System (RDMS)

Even on the basis of the limited research which has been undertaken to date, it is clear that there are considerable and important differences in the drug use patterns, risk behaviours and the potential harms experienced by metropolitan and rural drug users, as well as their use of harm reduction and treatment services. These differences provide strong evidence of the need to accurately and comprehensively describe the substance use issues facing rural Australian communities, particularly to identify which sub-populations might be experiencing the greatest harm¹². Decisions regarding the provision and resourcing of harm reduction, other AOD programs and related services should be made on the basis of a sound knowledge of the characteristics and behaviour of clients within their specific region³. Indeed, an objective of the National Drug Strategy 2010-2015 is to reduce the use of drugs in the community, at least in part through the targeting of interventions for at-risk groups such as people living in rural and remote communities¹³. Systems are required which can reflect and capture the heterogeneity of rural areas (for example, coastal resort towns compared to inland agricultural towns), as well as provide meaningful comparisons with existing metropolitan data.

The Illicit Drug Reporting System (IDRS) and the Ecstasy and related Drug Reporting System (EDRS) are national drug reporting systems which provide strategic early warning of emerging trends in the major illicit drug markets in the capital cities of Australia. The findings of these studies have important clinical, planning and policy implications and have been used to identify issues in illicit drug use that require further investigation by specialist studies¹⁴. Much of the strength of these studies is derived by their annual conduct in multiple locations, providing monitoring of patterns of drug use and associated harms both over time (to improve understanding of changing drug use markets, patterns of use and harms), and also between locations (thus documenting issues relevant to specific cities). It is preferable to collect data from multiple sources via a range of methods when assessing drug trends¹⁵ and the IDRS and EDRS studies triangulate three data sources: 1) Key informant interviews with health, law enforcement and research professionals; 2) Quantitative surveys with sentinel populations of illicit drug users (injecting drug users for the IDRS and psychostimulant users for the EDRS); and 3) Analysis of indicators from general population surveys, and health and law enforcement data^{16,17}. However, although the IDRS and EDRS are valuable tools for tracking drug trends and associated harms in the metropolitan centres of Australia, they do not collect or provide any information regarding these issues in rural Australia.

Internationally, efforts have been made to monitor trends in rural illicit drug use. For instance, in British Columbia, Canada, harm reduction stakeholders (e.g., public health practitioners, community members, and staff and clients of programmes distributing supplies for safer sex, injection and inhalation practices) representing each of the five geographic regions in BC, identified a need for data on drug use to inform local and regional harm reduction activities across the province³. A drug use survey was developed to be administered at harm reduction sites across all health regions and the data assessed for difference in reported drug use patterns by region³. Differences in the most common drugs used and patterns of polydrug use were found between sites, health regions, and community types, illustrating the importance of locally collected data to inform service planning³.

The current study

Aims and objectives

A team of researchers, based in Lismore in Northern New South Wales (Australia) are undertaking a study to assess the feasibility of establishing a Rural Drug Monitoring System (RDMS) in the Northern NSW Local Health District (NNSWLHD), and to explore the price, purity and availability and patterns of illicit drug use within the NNSWLHD.

The overall aims of this study are to:

- explore the feasibility of establishing a RDMS within the NNSWLHD
- explore the price, purity and availability and patterns of illicit drug use within the NNSWLHD
- to identify emerging trends in illicit drug markets within the NNSWLHD which require further investigation.

Four specific areas of focus will be used to explore the feasibility¹⁸ of establishing a RDMS in NNSWLHD:

- **Acceptability:** to what extent is the conduct of a RDMS within the NNSWLHD be judged as suitable, satisfying or attractive to key stakeholders?
- **Demand:** to what extent are the findings of a RDMS within the NNSWLHD likely to be used by key stakeholders?
- **Implementation:** to what extent can a RDMS undertaken within the NNSWLHD be successfully delivered?
- **Adaptation:** To what extent could an RDMS be successfully undertaken within other rural areas of Australia?

Research design

The current study will be conducted within the Northern NSW Local Health District (NNSWLHD). As this is a feasibility study, rather than collecting information from multiple sources (e.g., key experts, sentinel population of drug users, secondary indicator data), the focus will be upon undertaking interviews with key experts. Semi-structured interviews with up to 30 key experts, who through the conduct of their professional roles have contact with, experience of or understanding of issues pertaining to the use of alcohol and other drugs (and the harms associated with this use) with the NNSWLHD, will be undertaken. Consistent with the IDRS study¹⁶ key experts will have had at least weekly contact with people using or supplying illicit drugs and/or contact with a minimum of ten individuals using or supplying illicit drugs in the six months preceding interview.

A broad range of key experts will be invited to participate in the study including drug and alcohol workers (including those working within opiate treatment programs, inpatient withdrawal units and counselling services), those working within the law enforcement and justice sectors (for example, NSW police and the Magistrates Early Referral Into Treatment (MERIT) program), health workers (including those working within Emergency Departments, Community Health Centres and the NSW Ambulance Service), those working within Mental Health services (including Community Mental Health Services, Mental Health Inpatient Units, and Youth and Family Mental Health Services), harm reduction and health promotions services (for example, Needle and Syringe Programs (NSPs), the HIV and Related Program (HARP), and the ACON-AIDS Council of NSW) and local General Practitioners. Key Experts will be recruited from a range of geographical areas including the NNSWLHD regional centres (for example, Tweed, Lismore and Grafton) as well as rural areas (for example, Nimbin, Casino and Maclean).

Recruitment of key experts

Individuals will be identified as potential key experts via research networks or active snowballing and initially will be contacted by the researchers by phone or via email. They will be provided with information about the study and given the opportunity to ask questions about the study.

When an individual agrees to participate in a key expert interview, they will be provided with a Participant Information Sheet and asked to sign a Consent Form. As part of the informed consent process, potential participants will be assured that their participation is entirely voluntary, that they may withdraw from the study at any time prior to data analysis, and that a decision not to participate or to withdraw from the study after consent will not influence their professional standing.

Data collection and analysis

The key expert semi-structured interviews will explore issues pertaining to the feasibility of establishing a RDMS within the NNSWLHD (i.e., acceptability, demand, implementation and adaptation) as well as the price, purity and availability and patterns of illicit drug use within the NNSWLHD, and emerging trends in illicit drug markets within the NNSWLHD which require further investigation. Health-related issues (e.g., overdose, dependence, drug and alcohol treatment, hospital admission, injecting risk behaviours, blood-borne virus testing and treatment, mental and physical health problems) and law-enforcement-related issues will also be considered.

The semi-structured interviews will take approximately 30 minutes and will be conducted face-to-face or over the telephone. Notes will be taken during the interviews, and content analysis conducted to identify recurring themes and patterns in the data¹⁶.

Implications and policy recommendations

Accurate and timely information describing the substance use patterns and related issues facing rural communities is needed to identify which sub-populations are experiencing the greatest harm. Importantly, such information will enable strategic planning, ensuring that services are appropriately targeting those in need, and that the training, development and support needs of the rural health workforce can be met.

The current study will explore the feasibility of implementing a RDMS and provide the first systematic analysis of the drug use markets, patterns of use and associated harms in a rural NSW LHD. It is hoped that the findings of the current study will inform the future development and implementation of a RDMS both within the NNSWLHD and more widely across rural Australian communities.

References

1. Collins D, Lapsley H. The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004-05. Canberra (AU): Commonwealth of Australia; 2008. 127 p. National Drug Strategy Monograph Series No. 64.
2. Griffiths P, Vingoe L, Hunt N, Mounteney J, Hartnoll R. Drug Information Systems, early warning, and new drug trends: Can drug monitoring systems become more sensitive to emerging trends in drug consumption? *Substance Use & Misuse* 2000; 35 (6-8): 811- 844.
3. Kuo M, Shamsia A, Tzemis D, Buxton JA. A drug survey among clients of harm reduction sites across British Columbia, Canada, 2012. *Harm Reduction Journal*, 11, 13. Available from URL: <http://www.harmreductionjournal.com/content/11/1/13>
4. Australian Institute of Health and Welfare (AIHW). National Drug Strategy Household Survey detailed report 2013. Canberra (AU): AIHW; 2014. 151 p. Drug statistics series no. 28. Cat. No. PHE 183.
5. Aitken C, Brough R, Crofts N. Injecting drug use and blood-borne viruses: A comparison of rural and urban Victoria, 1990-1995. *Drug and Alcohol Review* 1999; 18: 47-52.
6. Day C, Conroy E, Lowe J, Page J, Dolan K. Patterns of drug use and associate harms among rural injecting drug users: Comparisons with metropolitan injecting drug users. *Australian Journal of Rural Health* 2006; 14: 120-125.

7. Lawrinson P, Copeland J, Indig D. Regional difference in injecting practices and other substance use-related behaviour among entrants into opioid maintenance pharmacotherapy treatment in NSW, Australia. *Drug and Alcohol Dependence* 2006; 82(Suppl. 1): S95-S102.
8. Australian Crime Commission. *Illicit Drug Data Report 2012-13*. Canberra (AU): Australian Crime Commission; 2014. 256 p.
9. McKetin R, Kelly E, McLaren J. The characteristics of treatment provided for amphetamine use in New South Wales, Australia. *Drug and Alcohol Review* 2005; 24: 433-436.
10. Helliwell D, Reilly D, Rippingdale C. Establishing a drug and alcohol services in an Australian rural area. *Drug and Alcohol Review* 1992; 11: 371-378.
11. Berends L. The emergence of a specialist role in rural alcohol and drug service delivery: Lessons from a review in rural Victoria, Australia. *Drugs: education, prevention and policy* 2010; 17(5): 603-617.
12. Roxburgh A, Miller P, Dunn M. Patterns of alcohol, tobacco and cannabis use and related harm in city, regional and remote areas of Australia. *International Journal of Drug Policy* 2013; 24: 488-491.
13. Ministerial Council on Drugs. *National Drug Strategy 2010-2015: A framework for action on alcohol, tobacco and other drugs*. Canberra (AU): Department of Health and Ageing; 2011. 26 p. Available from URL: <http://www.nationaldrugstrategy.gov.au/>
14. Topp L, Breen C, Kaye S, Darke S. Adapting the Illicit Drug Reporting System (IDRS) to examine the feasibility of monitoring trends in the markets for 'party drugs'. *Drug and Alcohol Dependence* 2004; 73: 189-197.
15. Hando J, O'Brien S, Darke S, Maher L, Hall W. *The Illicit Drug Reporting System (IDRS) trial: Final report*. Sydney (AU): National Drug and Alcohol Research Centre, University of New South Wales (UNSW); 1997. 82 p.
16. McKell D, Burns L. *New South Wales Drug Trends 2013. Findings from the Illicit Drug Reporting System (IDRS)*. Sydney (AU): National Drug and Alcohol Research Centre, UNSW; 2014. 129 p. Australian Drug Trends Series No. 110.
17. Sindicich N, Burns L. *Australian trends in ecstasy and related drug markets 2013: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney (AU): National Drug and Alcohol Research Centre, UNSW; 2014. 153 p. Australian Drug Trends Series No. 118.
18. Bowen DJ, Kreuter M, Spring B, Cofta-Woerpel L, Linnan L, Weiner D, Bakken S, Kaplan CP, Squires L, Fabrizio C, Fernandez M. How we design feasibility studies. *American Journal of Preventative Medicine* 2009; 36(5): 452-457.

Presenter

Dr Jennifer Johnston has worked in the drug and alcohol field for 15 years. During this time she has been involved in a wide range of studies—examining illicit drug markets, the social and cultural contexts of drug use, the management of GHB overdoses on Emergency Departments, and the treatment-seeking behaviour of injecting drug users. Upon moving to the Far North Coast of NSW five years ago, the focus of Jennifer's research turned to cannabis-related issues including the health outcomes associated with long-term use and interventions to reduce withdrawal symptoms following the cessation of use. Jennifer is currently a Research Fellow at the University Centre for Rural Health in Lismore, and is working on a range of health research projects including an examination of the barriers and enablers to the implementation of smoking cessation guidelines in antenatal care, the Diagnosing Potentially Preventable Hospitalisations (DaPPHne) study and a study exploring the use and impact of synthetic cannabinoids across NSW.