

## INNOVATIVE DATA TO INFORM POLICY PLANNING AND INTERVENTION

### Authors:

Lloyd B<sup>1,2</sup>, Killian J<sup>2</sup>, Gao CX<sup>2</sup>, Barker SF<sup>2</sup>, Matthews S<sup>2</sup>, Heilbronn C<sup>2</sup>

### Affiliations:

<sup>1</sup>Monash University, <sup>2</sup>Turning Point

### Nominated Chair:

Lloyd B

### Chair name:

Dr. Belinda Lloyd

Associate Professor of Addiction Studies, Monash University  
Head of Research and Workforce Development, Turning Point  
54-62 Gertrude Street, Fitzroy VIC 3065

### Chair's email address:

Belinda Lloyd <Belinda.lloyd@monash.edu>

**Aim of Abstract:** Turning Point conducts evidence based research leading to policy and service development, with a focus on improving and expanding the range and quality of treatment and support services. As part of this work, we examine trends and emerging patterns in alcohol and other drug use and related harms. We also provide population level data along with analysis and interpretation of trends and contributing factors at local, regional, state and national levels. This work helps improve system design by providing evidence to inform effective interventions and service delivery within the specialist alcohol and other drug sector and allied services.

Robust and sensitive population-level data systems provide a basis for developing responsive policy, prevention and interventions. They also identify the needs, gaps and emerging trends that impact the community, and directly inform development of government policy. The advent of 'big data' and advanced software and analytic tools afford novel opportunities to better understand community needs and enhance policy development pathways. Data sharing can also be augmented to facilitate innovation across agencies and within government.

This symposium will describe methodologies and case studies of how innovative data systems can be used to inform policy planning and interventions with an aim to:

- Decreasing rates of alcohol and other drug misuse in Victoria and Australia
- Reducing community harms from alcohol and other drug misuse
- Increasing access to treatment for individuals with an alcohol or other drug problem

**Nature of interactive element:** There will be an interactive component to this symposium which will include:

- Hands-on experience using AODstats (interactive AOD-related statistics and mapping website)
- Facilitated discussion relating to the use of data to answer policy-relevant questions
- Facilitated discussion of the practical application of building upon existing data in order to provide a robust evidence base of the impact of alcohol and other drug harms across services and systems

### **Presentation 1 – Utilising Interactive Mapping Statistical Tools for Large Data Sources Introduction and Aims:**

Turning Point has been compiling and analysing large data sources in relation to alcohol and other drug (AOD) related harms for more than 20 years. Recently, a new reporting approach has been adopted for reporting AOD-related statistics using an interactive mapping tool.

**Design and Methods:** Since 1999, Turning Point has delivered annual editions of the Victorian Alcohol Statistics Series and Victorian Drug Statistics handbook, which, in 2014, were redeveloped into an interactive statistics and mapping tool, AODstats, providing comprehensive information about AOD-related statistics for Victoria. An extensive range of primary and secondary data sources (e.g. ambulance attendances, treatment services, assaults and family violence) are utilised to provide harm indicators at local government area levels. Using a similar methodology, results from the Alcohol's Burden of Disease study were mapped at state level in Australia.

**Results:** In Victoria, most alcohol-related harms have substantially increased over time, yet treatment rates have only minimally increased. Between 2003/04 and 2012/13 alcohol-related ambulance attendances increased by 136%, assaults and family violence incidents increased by 30% and 44%, respectively. In contrast, alcohol-related specialist treatment has only increased by 12% over the same period. Nationally, alcohol-attributable hospitalisations also increased substantially and substantial differences in drinking patterns and associated harms were also observed among different jurisdictions.

**Discussion and Conclusions:** Interactive mapping statistical tools can be used to improve government policy development and efficiency in AOD-related services, providing a framework for further expansion to incorporate additional datasets and analyses.

**Presenting Authors:**

Killian J, Gao CX

**Affiliations:**

Turning Point

## **Presentation 2 – Demand modelling: Developing data methods for needs-based planning**

**Introduction and Aims:** There is growing evidence that alcohol and other drug (AOD) problems are interconnected with a range of other life issues that influence client outcomes. A broader approach to treatment accounts for these life complexities and forms part of recent needs-based planning work in Victoria.

**Design and Methods:** This work adopted a framework to segment help-seeking populations, taking consideration of both AOD problem severity and life complexity issues. Two methods were applied: 1) analysis of catchment-level administrative data; and 2) use of data linkage methods. Analysis of catchment-level data provided a first layer of understanding of population-level need for AOD treatment, while a more comprehensive understanding of need and demand was inferred from AOD-related harms.

**Results:** Data from 1827 help-seekers, obtained during 2014-2015, was collected and analysed, including data relating to demographics, substance use, mental health, and quality of life. Consents for linkage to ambulance data and AOD treatment data were also collected from individuals seeking specialist AOD treatment or completing an online AOD screen.

Catchment-level analysis described the high level of complexity of individuals seeking AOD treatment and provided a clear indication of the need for strong links between AOD-specific services and other support services. The rate of engagement with emergency services was much higher amongst AOD help-seekers compared to the general population, providing further evidence of the complexity of AOD help-seekers.

**Discussion and Conclusions:** Using catchment-level administrative data and evidence of AOD harms, this project demonstrated the richness and value of routinely-collected data and has the potential to become a valuable tool for AOD system planning.

### **Presenting Authors:**

Barker SF, Gao CX

### **Affiliations:**

Turning Point

### **Presentation 3 – Enhancing routinely collected data: Development of a timely and responsive surveillance system for acute alcohol and drug-related harm**

**Introduction and Aims:** Alcohol intoxication and acute alcohol-related harms are major public health issues. Although alcohol harm is a priority area for development of effective policy and treatment, there is currently a paucity of robust and timely data for monitoring alcohol involvement in acute harm at a population level. This study presents findings from a unique alcohol and drug-related ambulance attendance surveillance system.

**Design and Methods:** Ambulance records potentially involving alcohol-related cases were extracted, reviewed and coded. Data include detailed information regarding patient characteristics, paramedic assessment and treatment. Data for Victoria, Australia are presented, and represent a service population of approximately 5.5 million residents.

**Results:** Between July 2013 and June 2014, the rate of ambulance attendances due to harms associated with acute alcohol intoxication was almost 300 per 100,000 population. Despite a strong community focus on risky drinking among youth, the age of patients attended for acute alcohol intoxication is increasing, with the median age of patients being 42 years. Approximately two thirds of patients were male. Police co-attended twenty-five percent of alcohol intoxication-related ambulance attendances. Seventy percent of patients who were acutely alcohol intoxicated were transported to hospital following the ambulance attendance.

**Discussion and Conclusions:** This surveillance system provides a significant contribution to public health, policy and service delivery, and represents a unique system for ongoing and timely population level monitoring of acute alcohol-related harm.

**Implications for Practice or Policy:** Access to timely and robust harms data from frontline services allows opportunities for the development and evaluation of evidence-based responses at local, state and national levels, with targeted and effective responses.

**Presenting Authors:**

Lloyd B

**Affiliations:**

Turning Point, Monash University

## **Discussion Section**

There will be an interactive component to this symposium which will include:

- Hands-on experience using AODstats
- Facilitated discussion relating to the use of data to answer policy-relevant questions
- Facilitated discussion of the practical application of building upon existing data in order to provide a robust evidence base of the impact of AOD harms across services and systems

Participants will be guided through the AODstats interactive website and opportunities will be provided for participants to interrogate the website for the purposes of answering specific questions related to their own work and assessing how AODstats could be used for their own purposes (participants are asked to bring their laptops).

The authors will also discuss how data can have much broader applications, beyond the intention of the original data collection, particularly when data sources are linked together. Further discussion will relate to the practicalities of building upon existing datasets and the potential to use the AODstats and Victorian data models in other jurisdictions.

**Implications for Practice or Policy:** Interactive data provides a unique, interface for ongoing, timely, evidence-based monitoring of AOD-related use and harms at the population level. These systems provide many opportunities for practice, planning and policy development including location- or drug-specific emerging trends or treatment delivery and intervention planning

**Implications for Translational Research:** Using secondary data for analysis, coding and data linkage provides unique practical applications for AOD harm monitoring and service planning that assists in evaluating the effectiveness of the broader AOD system. A core example of translation of research into practice is AODstats. This was piloted 15 years ago as a static report and has been translated into a sustainable, online surveillance system that is commissioned by the state government as part of their routine policy practices. This not only informs state government practices but is also used by local governments for decision making.

**Disclosure of Interest Statement:** The Victorian Department of Health and Human Service funds AODstats and provided funding for the demand modelling work. FARE and VicHealth provided funding for Alcohol's Burden of Disease study.