Current Issues
Psychostimulant use

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Outline

• Emerging trends
• Harms
• Response
• Future directions
Psychostimulants in Australia

• Meth/amphetamines
• Phenethylamines MDMA, MDA
• Cocaine

Methamphetamine most important from a public health perspective
Increasing crystalline methamphetamine (ice) use

2014 World Drug Report

Global increased production of methamphetamine (MA)

Australia: one of the highest rates of MA use in the world

2013 Australian NDSHS

MA use around 2% 12 month prevalence (lifetime 7%)

No significant change since 1993

Form changed and frequency significantly increased compared with 2010

• Increase in the proportion of users daily or weekly (from 9.3% to 15.5%)

• Among crystal meth users (from 12.4% to 25.3%)

• Crystalline form (more concentrated) “ice” “crystal” more than doubled

Increasing % crystalline form of MA, NDSHS

Form of MA used, among those using in last 13 months 14+ years 2007 to 2013

![Graph showing the percentage of users of crystalline MA from 2007 to 2013](http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/)
Increasing % crystalline form of MA, IDRS

% form of MA among PWID reporting MA use in the previous 6 months
Amphetamine type stimulants seizures, Australian border 03/04-12/13

Annual median purity of methamphetamine by State 03/04-12/13

Increased MA-related harms

Victorian data 2010-2011

Increased

• Ambulance callouts for MA (more than doubled), crystal MA (more than tripled)
• Treatment episodes 77% increase, calls to Direct Line doubled
• Exceeded that of 2006-2007 “ice epidemic”

Similar trend in NSW

Methamphetamine-related treatment episodes by year 2003/04-2012/13, Australia

- Total number of treatment episodes involving methamphetamine
- Number of treatment episodes where methamphetamine principal drug of concern

AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set
Victoria most affected State in absolute numbers

Total methamphetamine-related treatment episodes by location and year
2003/4-2012/13, Australia

AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set
WA most affected state by rate /100,000 population / year

Treatment episodes per 100,000 population 2012-2013 by State

20-39 year old age group most affected

Total methamphetamine-related treatment episodes by age and year 2003/4 - 2012/13, Australia

AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set
Men seek treatment more than women

Total methamphetamine-related treatment episodes by sex and year 2003/4 - 2012/13, Australia

AIHW 2014. Alcohol and other drug treatment services in Australia, National Minimum Data Set
NSW Alcohol and Drug Information Service
Calls by drug and year

<table>
<thead>
<tr>
<th>Year (July-June)</th>
<th>Other stimulants</th>
<th>Meth/amphetamine</th>
</tr>
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<tbody>
<tr>
<td>2009-2010</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>14%</td>
<td>86%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>16%</td>
<td>84%</td>
</tr>
<tr>
<td>2013-2014</td>
<td>17%</td>
<td>83%</td>
</tr>
</tbody>
</table>

n=11,995  n=17,481  n=9,362  n=13,251  n=14,127
Proportion of episodes where primary drug of concern methamphetamine 2011/12-2013/14 (NADA, 80% of NGOs in NSW)
Total monthly counts of methamphetamine-related Emergency Department presentations to metropolitan Sydney hospitals, January 2009 to June 2014

Prepared by: Tina Navin Cristina and Julia Chessman, Centre for Epidemiology and Evidence, July 2014. Data source: NSW emergency department and ambulance public health surveillance system (PHREDSS), Centre for Epidemiology and Evidence, NSW Ministry of Health.
SVH Methamphetamine related admissions by month
01/07/2013 - 30/06/2014 (n = 368)
Proportion of admissions to Gorman House residential withdrawal unit by primary drug of concern by month 07/09-06/14
SVH Stimulant Treatment Program
Increasing demand 01/13-06/14
HIV and methamphetamine

**MA contributes to new infections, onward transmission and disease progression**
- In general population samples and among MSM

**MA-associated high risk sexual behaviours**
- Increased intensity and frequency of unprotected anal/vaginal sex with serodiscordant partners, multiple partners

**Injection-related risks**

**Independent association with HIV infection even when controlling for behavioural risks**
- ?cofactor in enhancing HIV infection and replication

**Faster HIV disease progression**
- poor medication adherence, slows HIV RNA suppression with ART, ?promotes resistance

**Increased risk of cognitive decline and neuropsychological impairment among HIV+**

HIV antibody prevalence by last drug injected national NSP data

HCV more likely to be associated with opioid injection, HIV more likely to be associated with methamphetamine
Number of deaths in which illicit amphetamines were detected post-mortem NSW by quarter 2003-2013

McKell & Burns NSW Drug Trends 2013 NDARC, Sydney 2014 p73, data source Forensic Toxicology Laboratory database, NSW Health
Stimulant use disorders largely untreated

Prevalence stimulant use disorders >3x opiate use disorders

• 2007: 0.7 % (compared with 0.2% with opiate use disorders)

Despite contact with health services

eg hospital presentations

• psychosis

• cardiovascular complaints

• cerebrovascular emergencies

Intervention options

Harm reduction

Safe sex/safe use
  Information and education
  Supplies and equipment
    Condoms lube play packs/blood play packs
NSPs
Drug consumption rooms
HIV/STI/BBV testing, HBV vaccination
PEP/PrEP
Treatment

Psychosocial treatment

- Current standard of care (counselling, CBT/ACT)
- Modest effectiveness in reducing amphetamine use
- Effect size in the order of 0.28
- Uncertain effectiveness in reducing sexual risk behaviours
- Baseline use predicts response: better outcomes for less frequent use

No proven pharmacological intervention

- 3 Cochrane reviews highlighted the need for continued research

Treatment seeking

- 5 year gap between problem use and treatment seeking
- More likely to see treatment if:
  - Riskier use (eg IV)
  - Seeking support for other problems (eg mental health)
- Less likely to seek treatment if
  - Women, born outside Australia, full-time employed
  - Non-injectors
  - Perception of use as non-problematic even if dependent and experiencing MA-related harm

Future directions

Changes to legislative environment
  Reduction in criminalisation of behaviour, public health approach

Harm reduction
  HIV prevention, eg promotion of PrEP, PEP

Expansion of treatment places and modalities
  Online and new technologies
  Promote early intervention
  Skilling up specialist and generalist workforce

Research
  Measuring and minimising risks, data on estimates of treatment gap / target populations
  Service delivery to enhance access and target populations
  New evidence based interventions, particularly pharmacotherapies
Conclusion

• Methamphetamine use and harm increasing in Australia

• Need for multisectoral evidence-based policy

• Need to expand service delivery targeting at-risk populations using innovative treatment modalities

• Targeted research funds, pharmacotherapies
Acknowledgements

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