



**ST VINCENT'S
HOSPITAL**
SYDNEY

A FACILITY OF ST VINCENT'S HEALTH AUSTRALIA

Current Issues Psychostimulant use

A/Prof Nadine Ezard MBBS BA MPH PhD FChAM

Clinical Director

Alcohol and Drug Service

St Vincent's Hospital Darlinghurst

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

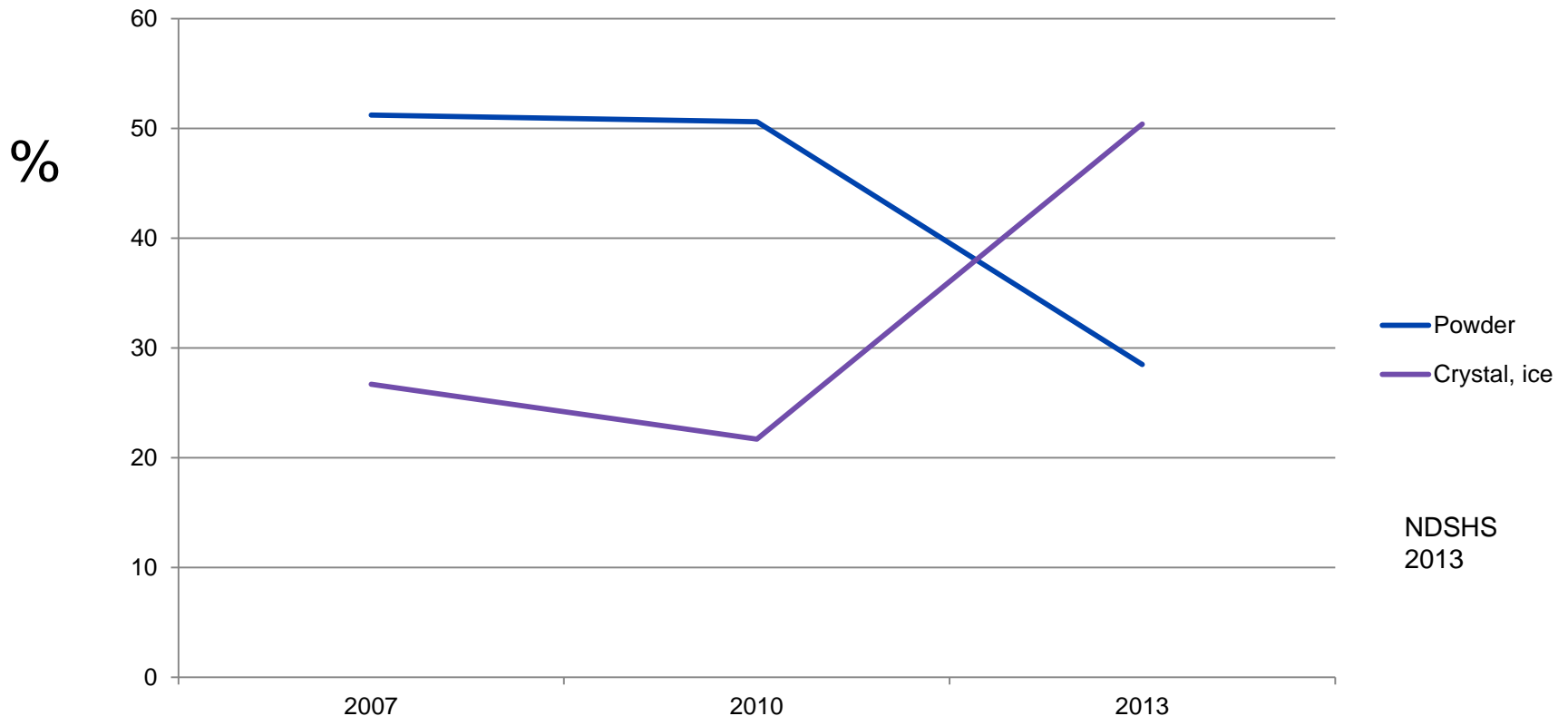
Form changed and frequency significantly increased compared with 2010

- 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

World drug report 2014 UNODC, Vienna; Australian Institute of Health and Welfare. 2013 National Drug Strategy Household Survey. Canberra, AIHW: 2014.

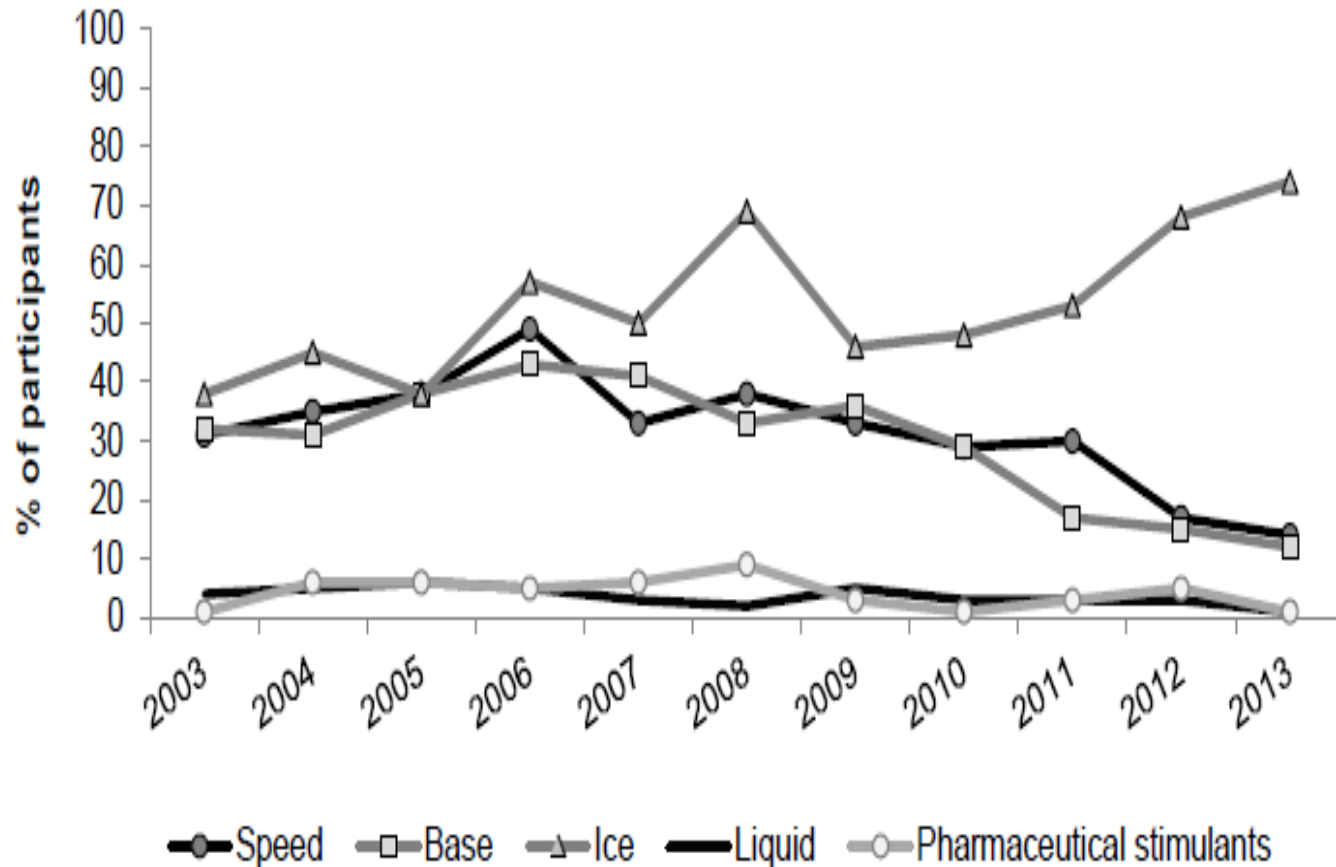
Increasing % crystalline form of MA, NDSHS

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

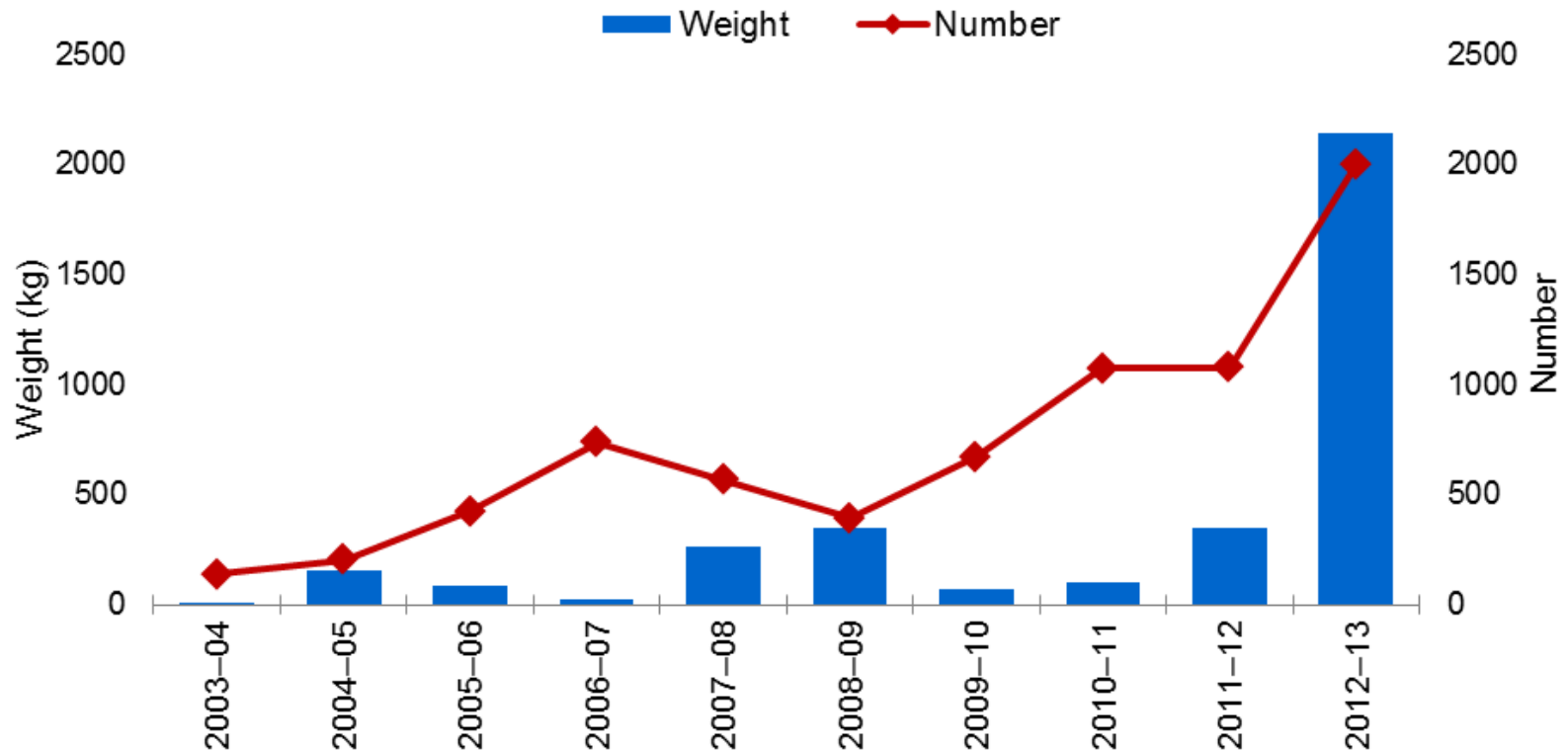


Increasing % crystalline form of MA, IDRS

% form of MA among PWID reporting MA use in the previous 6 months

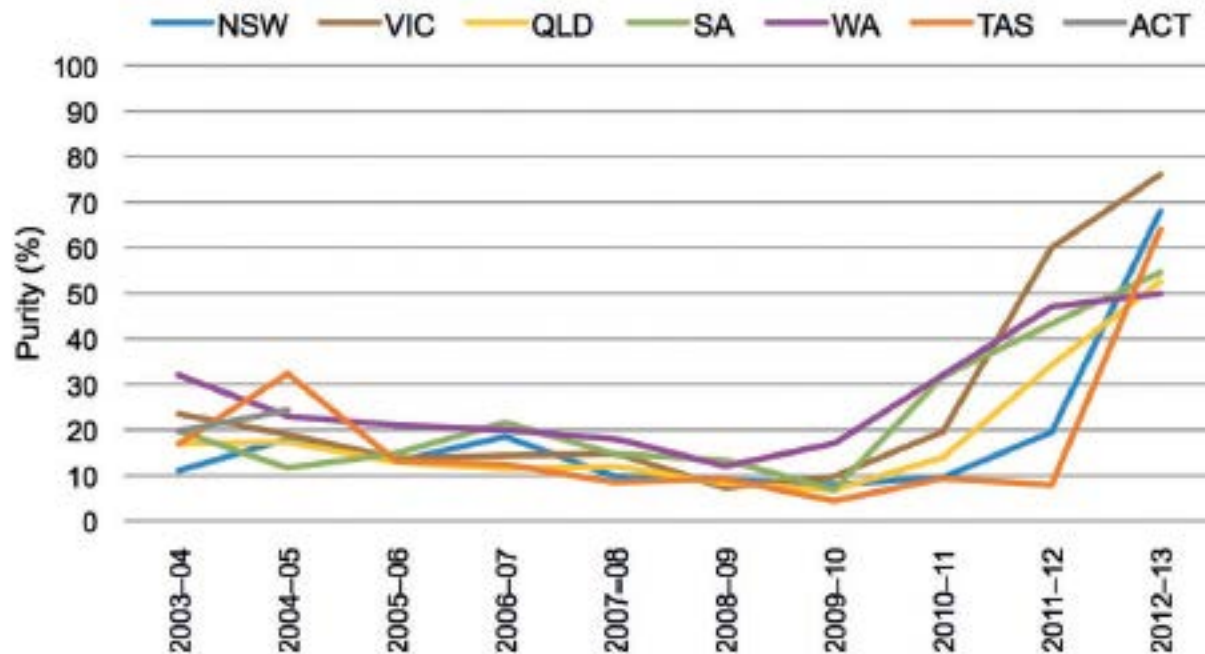


Amphetamine type stimulants seizures, Australian border 03/04-12/13



Australian Crime Commission *Illicit Drug Data Report 2012-2013* Canberra, Commonwealth of Australia, 2014

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



Australian Crime Commission *Illicit Drug Data Report 2012-2013* Canberra, Commonwealth of Australia, 2014

Increased MA-related harms

Victorian data 2010-2011

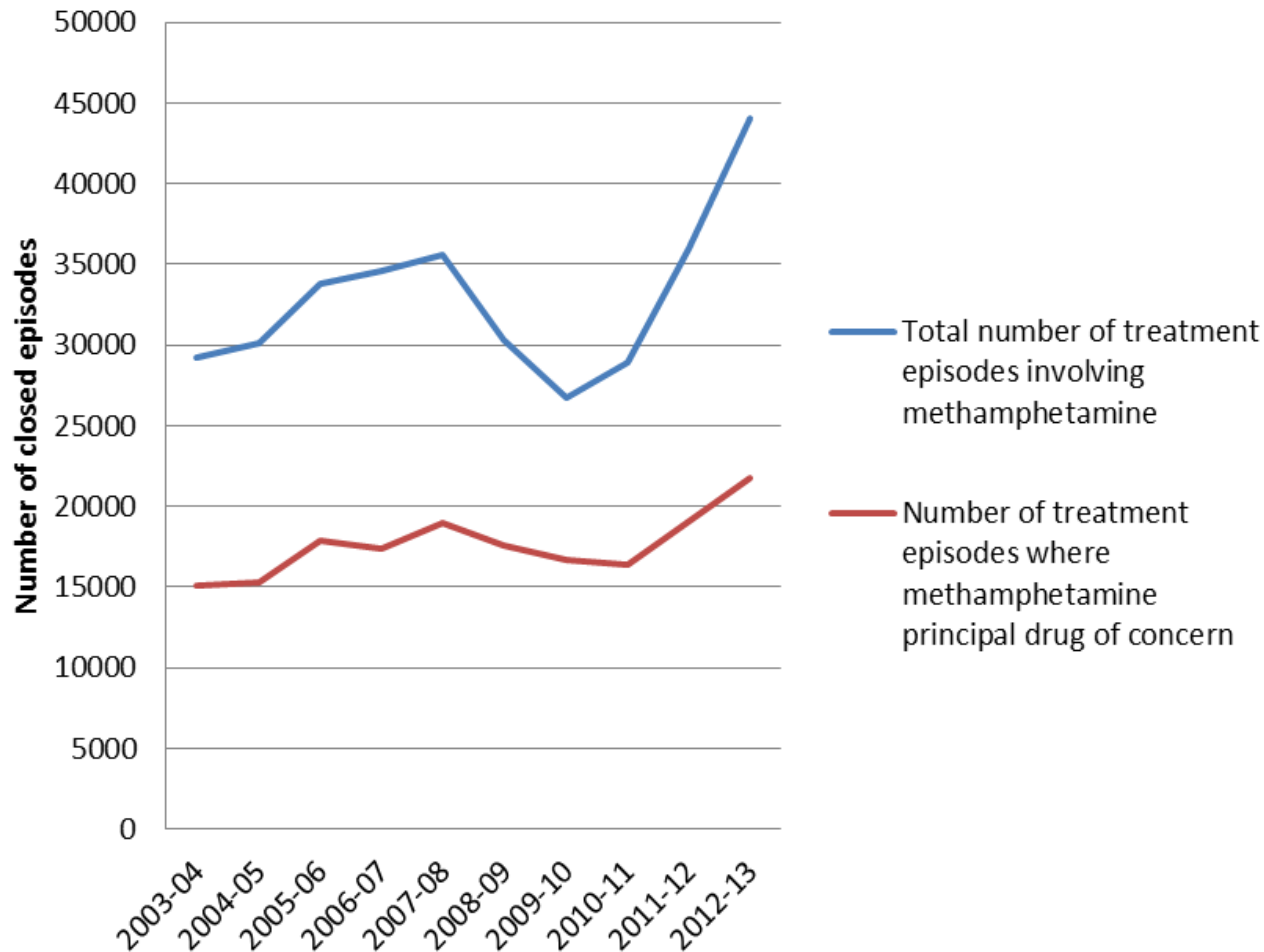
Increased

- 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

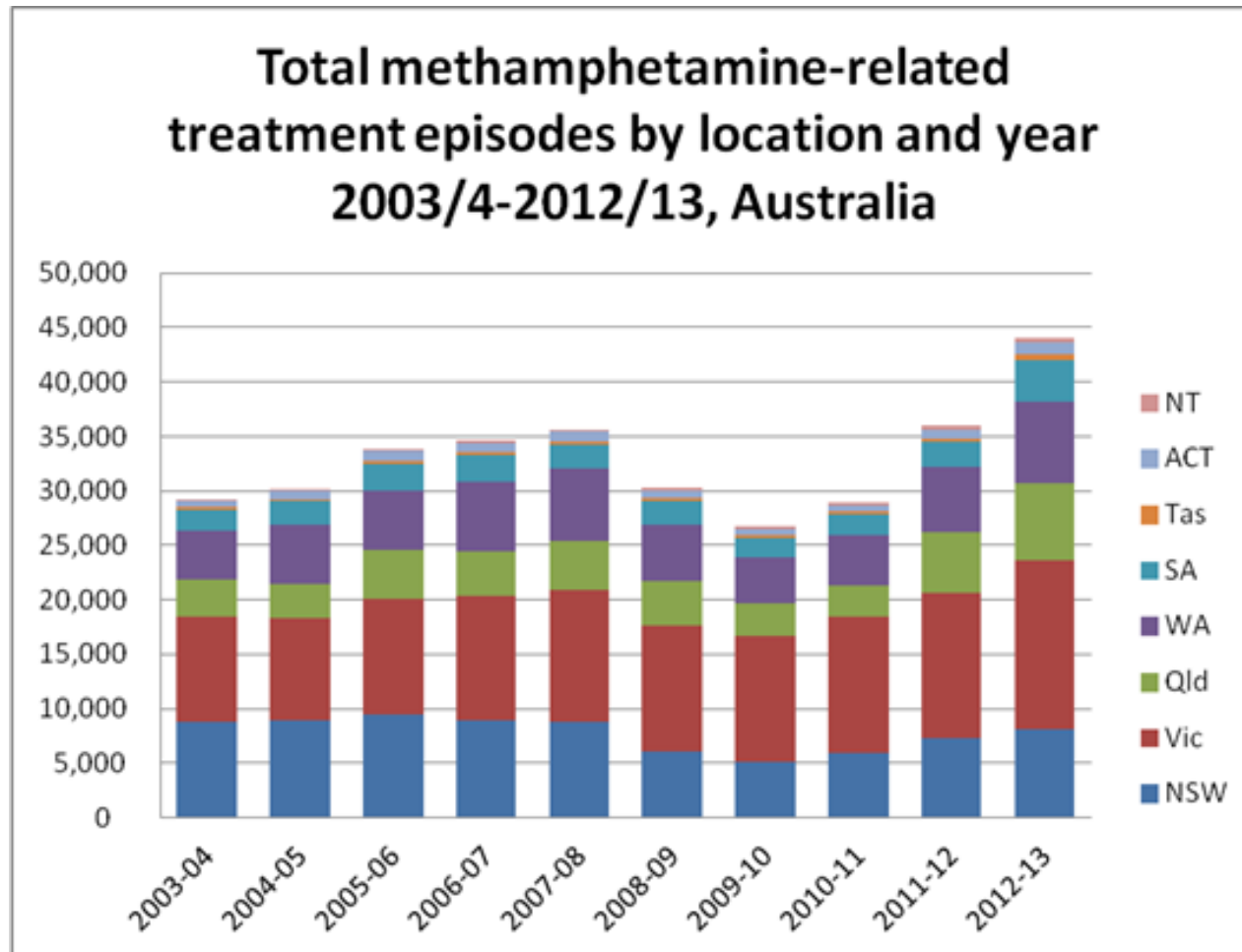
Heilbron et al 2013 Med J Aust 199 (6): 395

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



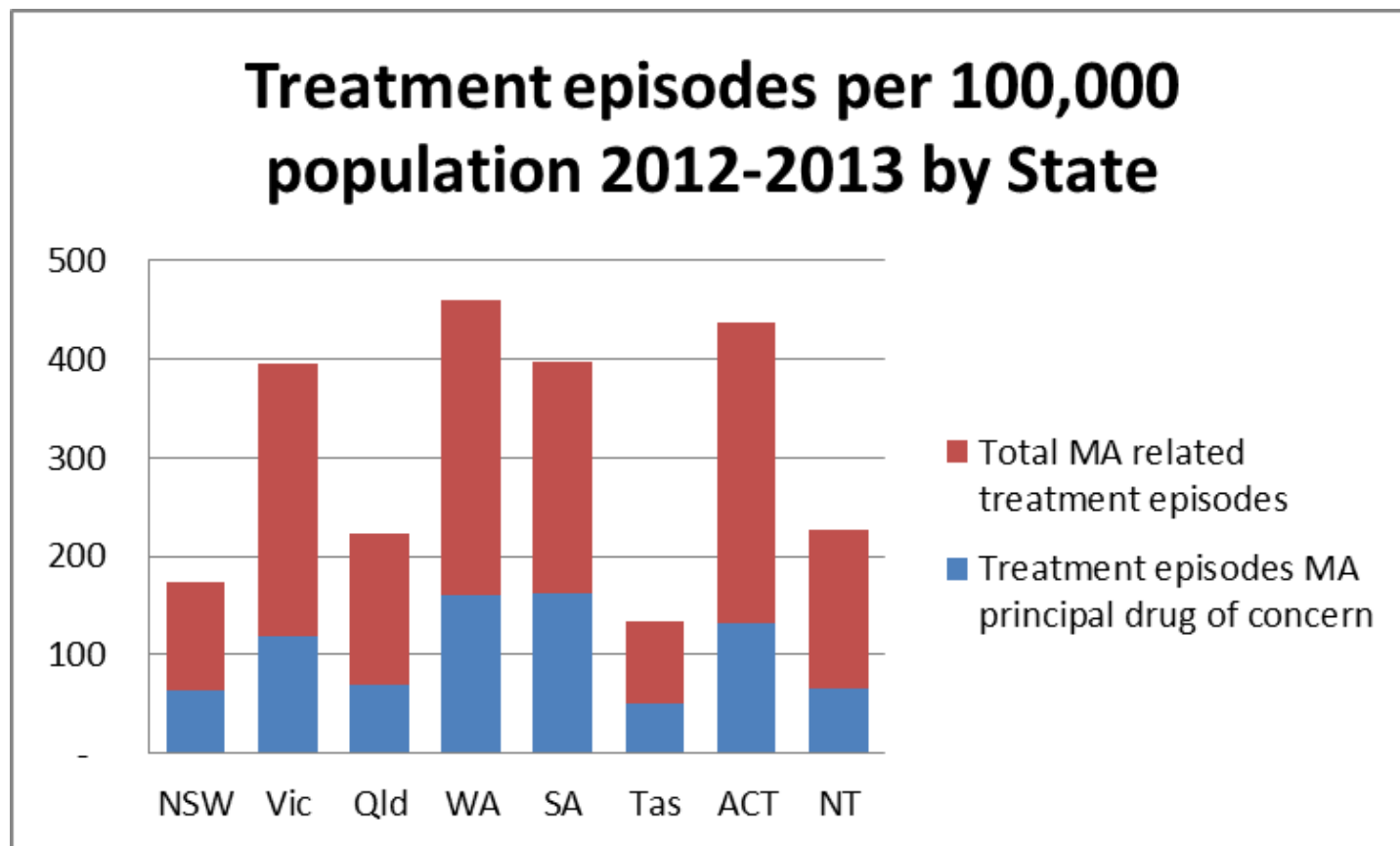
AIHW 2014.
Alcohol and other drug treatment services in Australia National Minimum Data Set

Victoria most affected State in absolute numbers



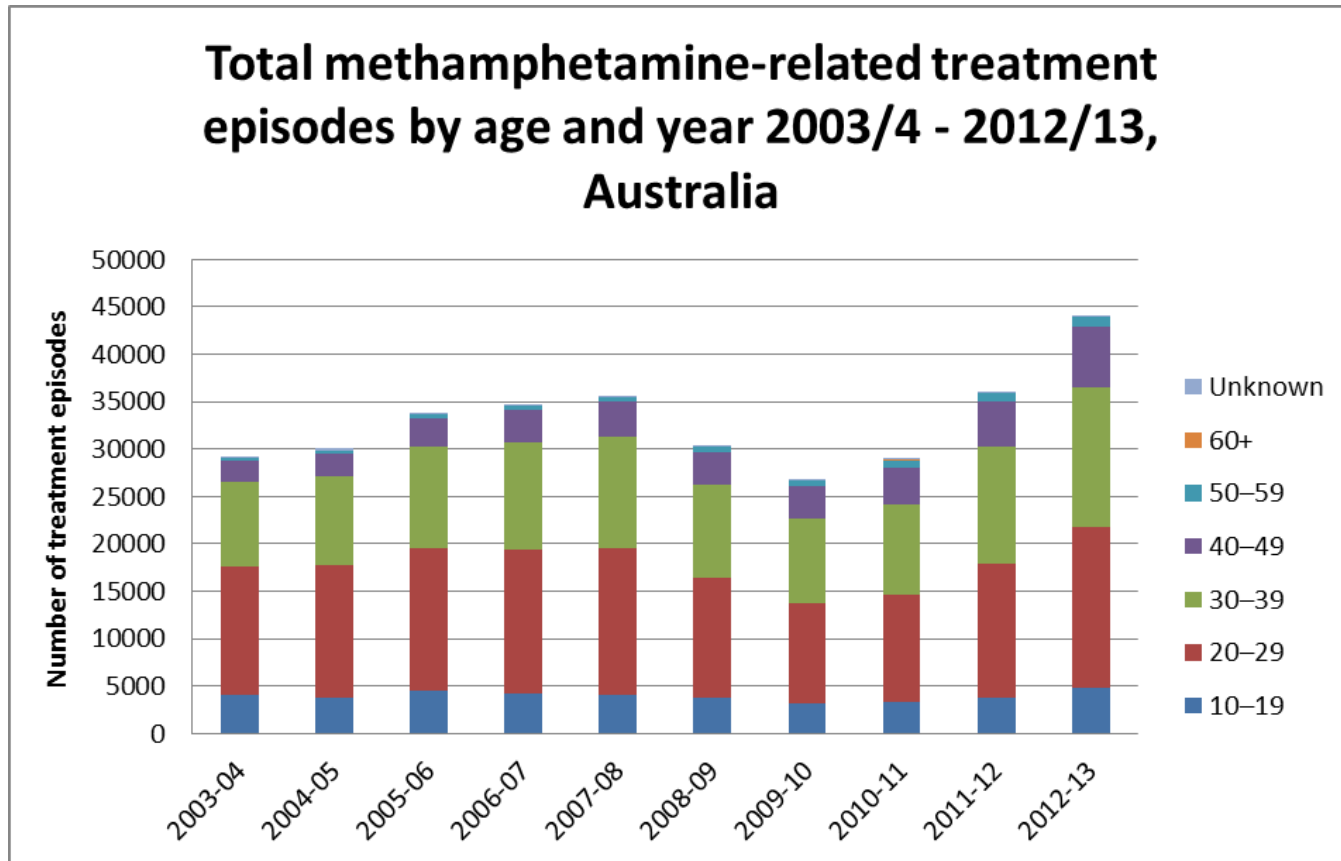
AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set

WA most affected state by rate /100,000 population / year



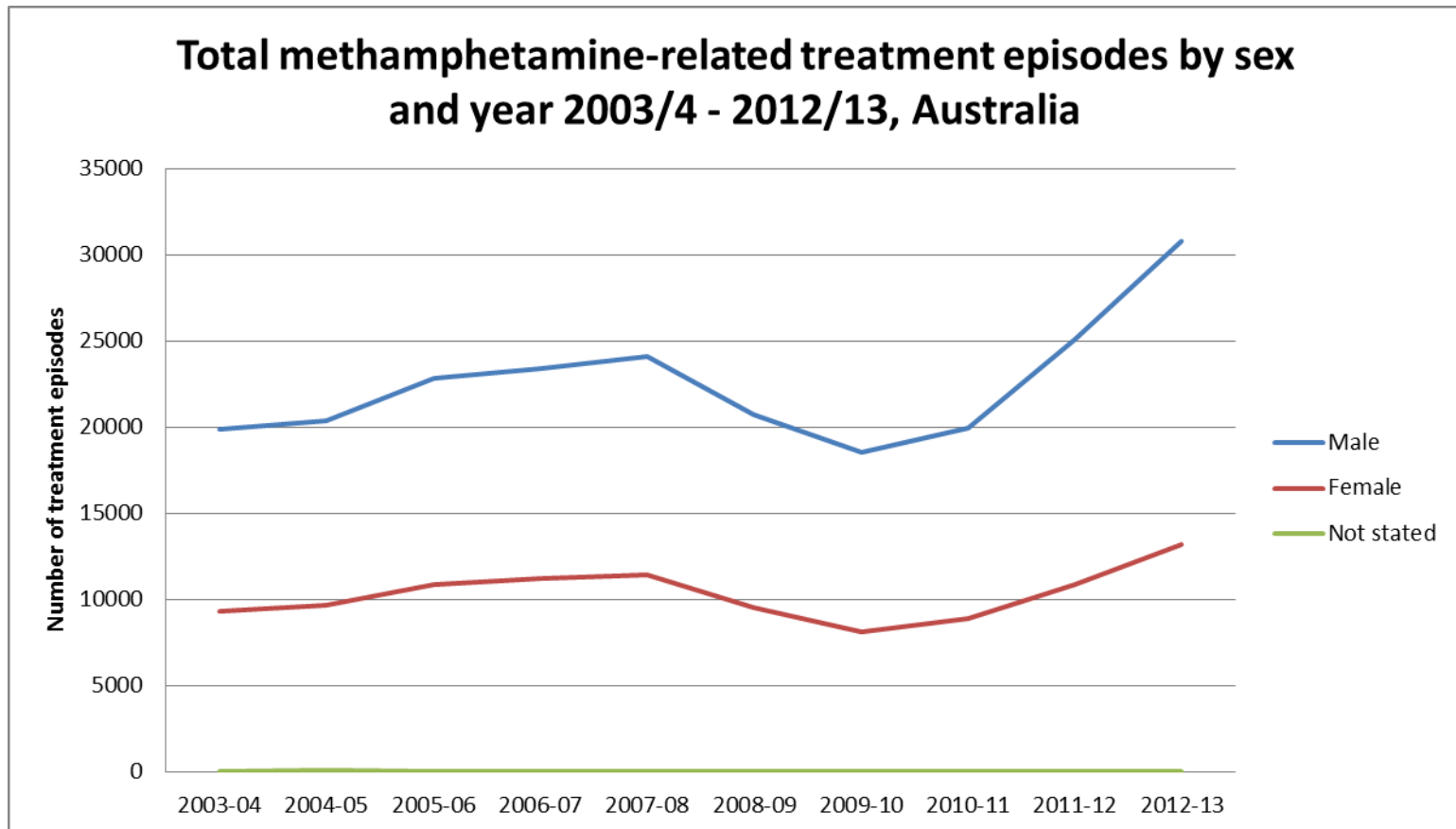
AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set; Australian Bureau of Statistics, Australian Demographic Statistics December 2012

20-39 year old age group most affected



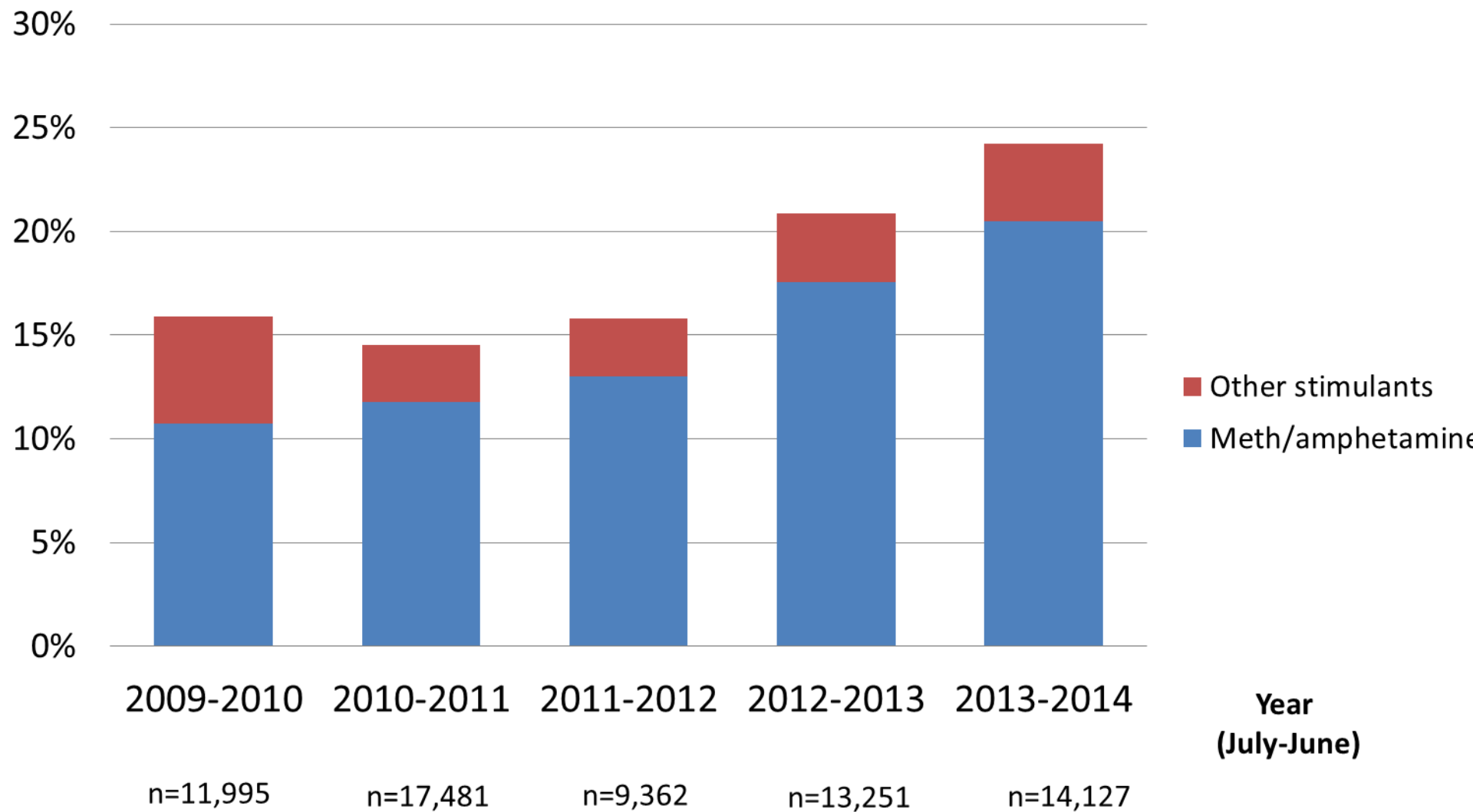
AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set

Men seek treatment more than women

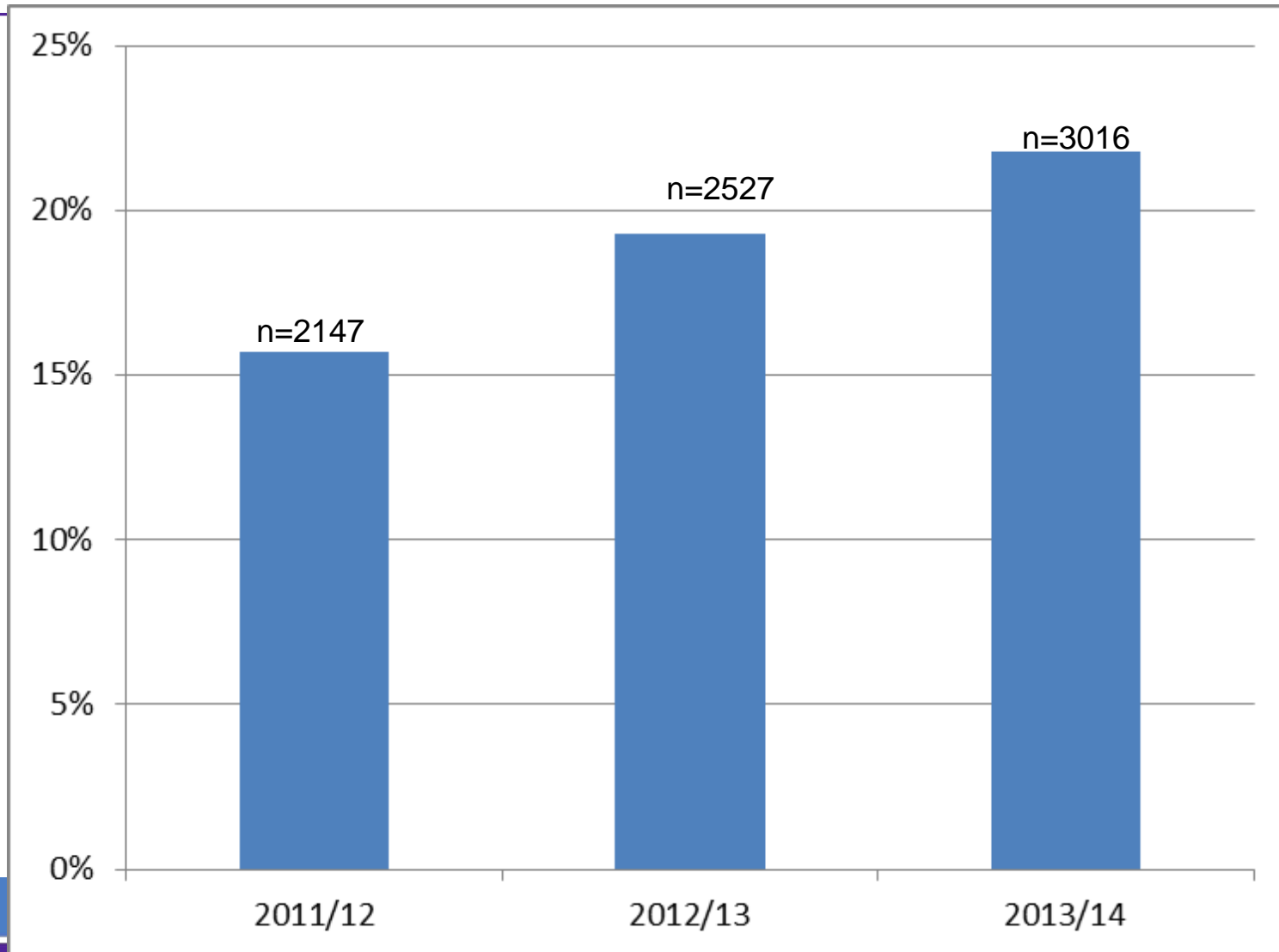


AIHW 2014. Alcohol and other drug treatment services in Australia, National Minimum Data Set

NSW Alcohol and Drug Information Service Calls by drug and year



Proportion of episodes where primary drug of concern methamphetamine 2011/12-2013/14 (NADA, 80% of NGOs in NSW)



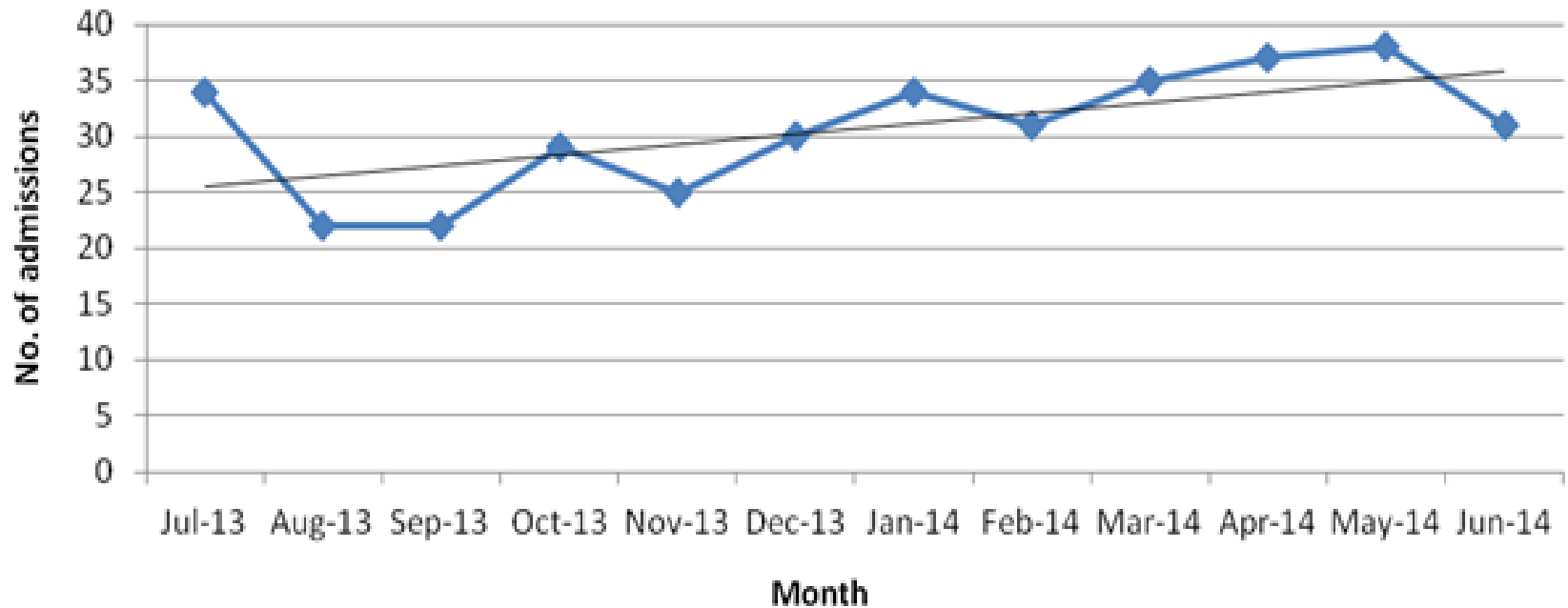
Total monthly counts of methamphetamine-related Emergency Department presentations to metropolitan Sydney hospitals, January 2009 to June 2014

Number of presentations

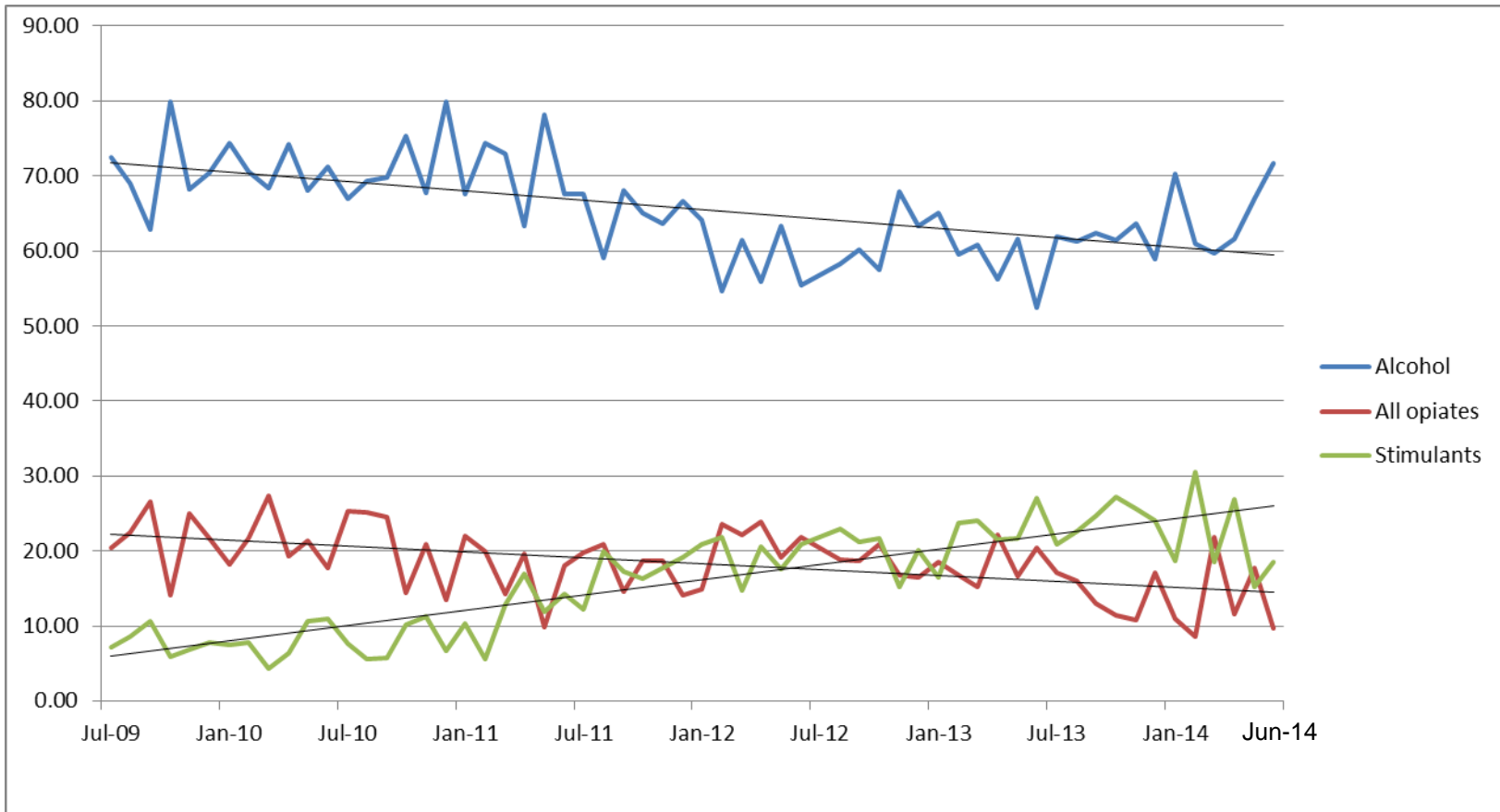


Prepared by: Tina Navin Cristina and Julia Chessman, Centre for Epidemiology and Evidence, July 2014. Data source: NSW emergency department and ambulance public health surveillance system (PHREDSS), Centre for Epidemiology and Evidence, NSW Ministry of Health.

SVH Methamphetamine related admissions by month 01/07/2013 - 30/06/2014 (n = 368)

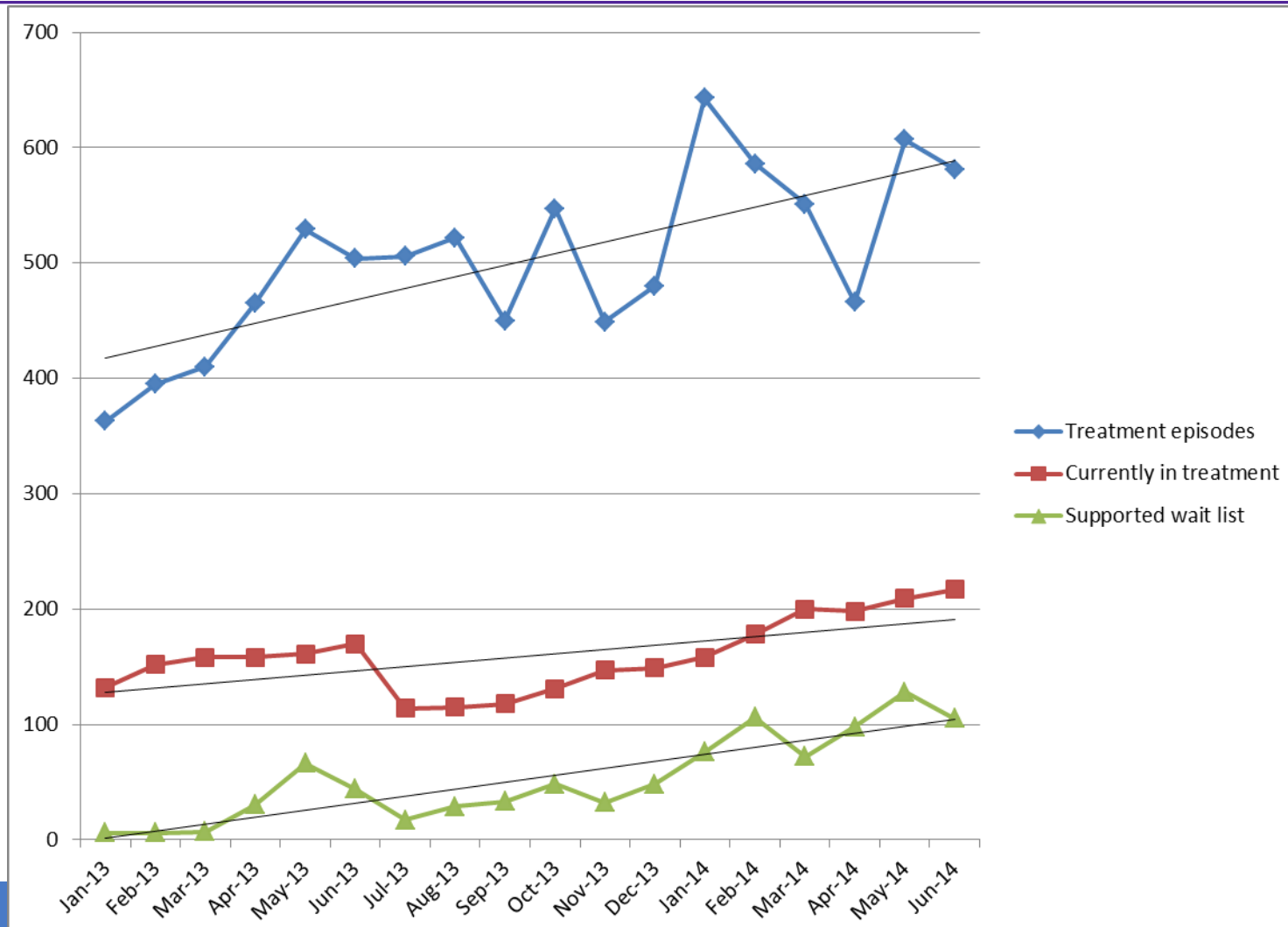


Proportion of admissions to Gorman House residential withdrawal unit by primary drug of concern by month 07/09-06/14



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

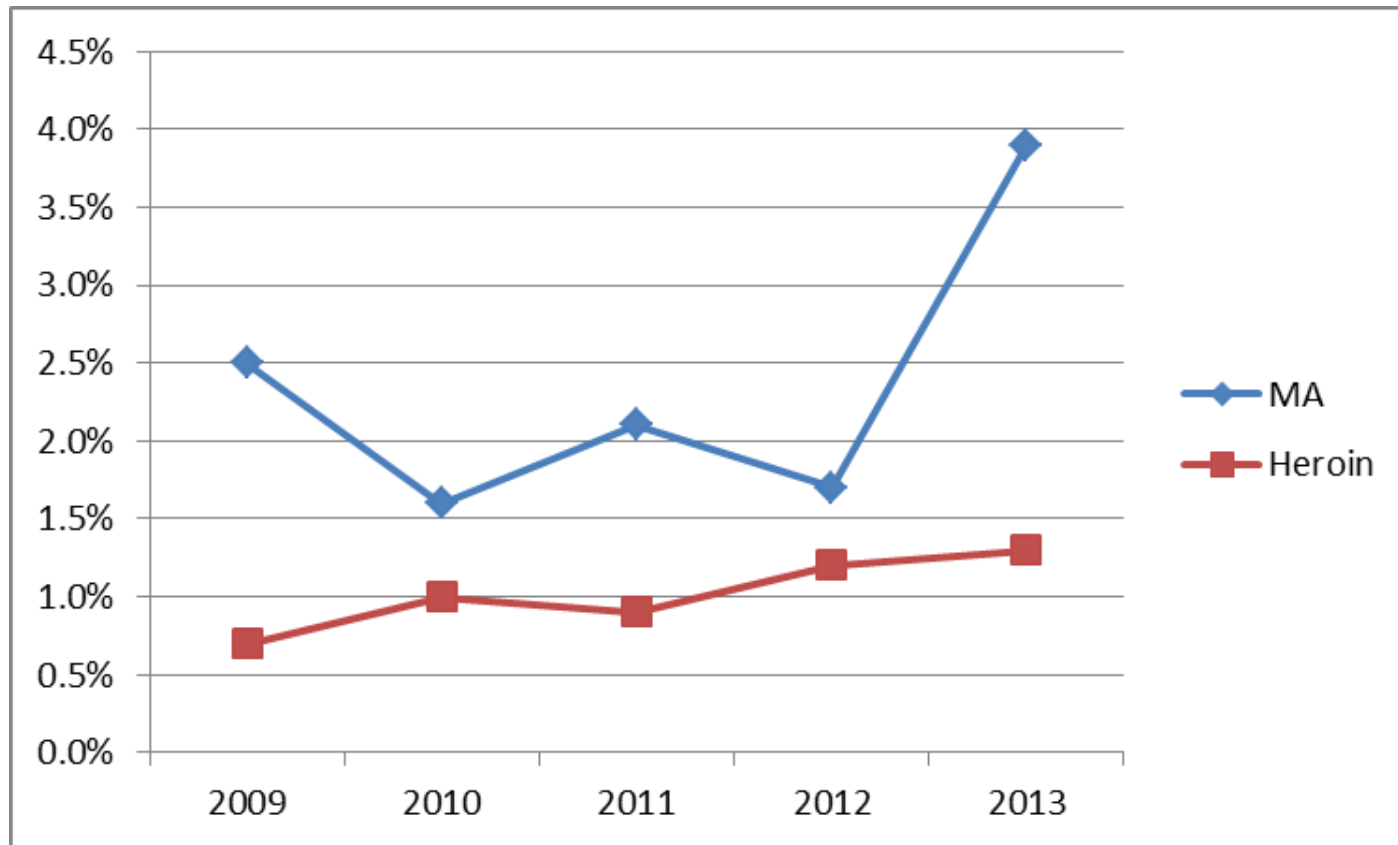
Independent association with HIV infection even when controlling for behavioural risks ?cofactor in enhancing HIV infection and replication

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+

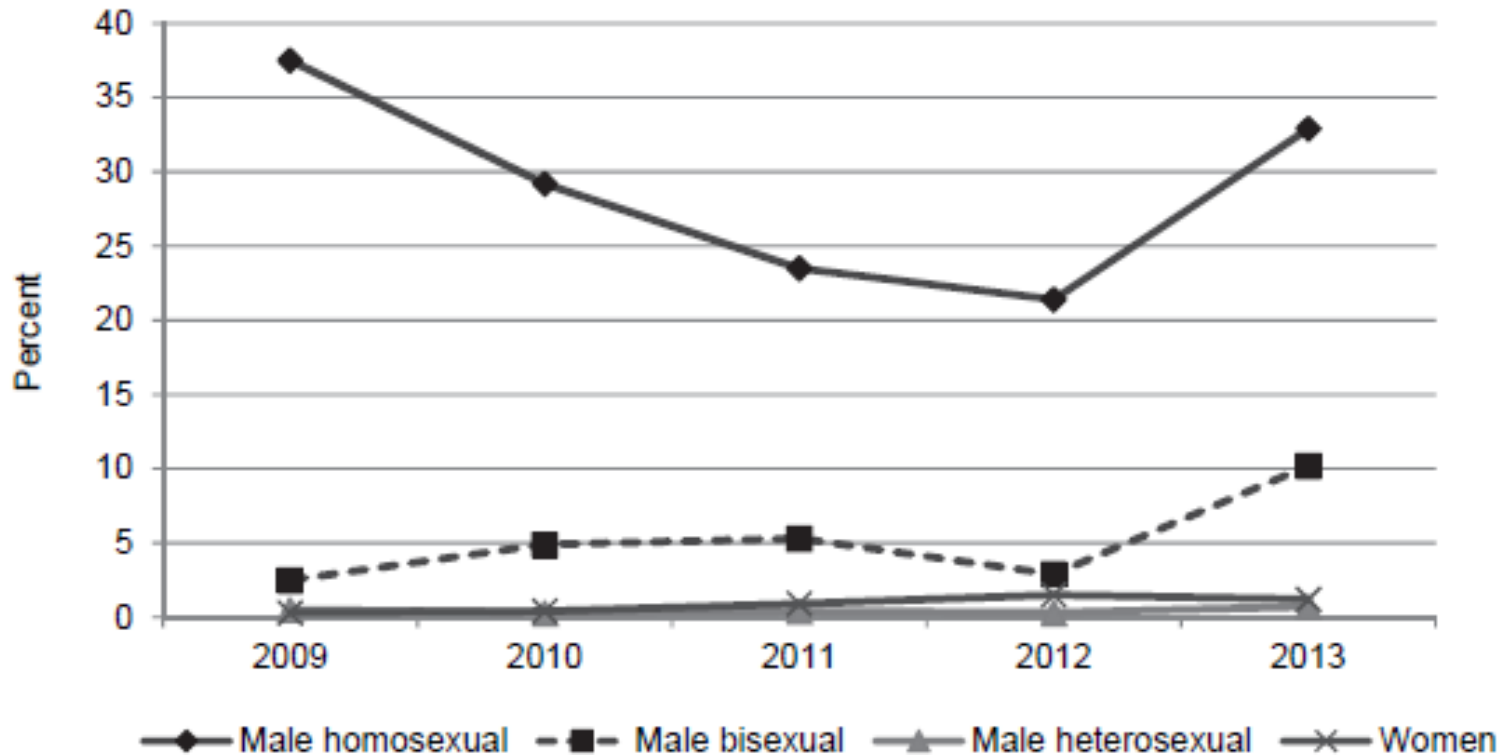
Rajasingham et al 2012 AIDS Patient Care and STDs 26(1) 36-52; Colfax et al 2010 Lancet 376;458-474;
Fairbairn Addictive Behaviors, July 2011, Vol.36(7), pp.762-763

HIV antibody prevalence by last drug injected national NSP data



Iverson and Maher. Australian Needle and Syringe Program National Data Report 2009-2013. The Kirby Institute UNSW, Sydney 2014.

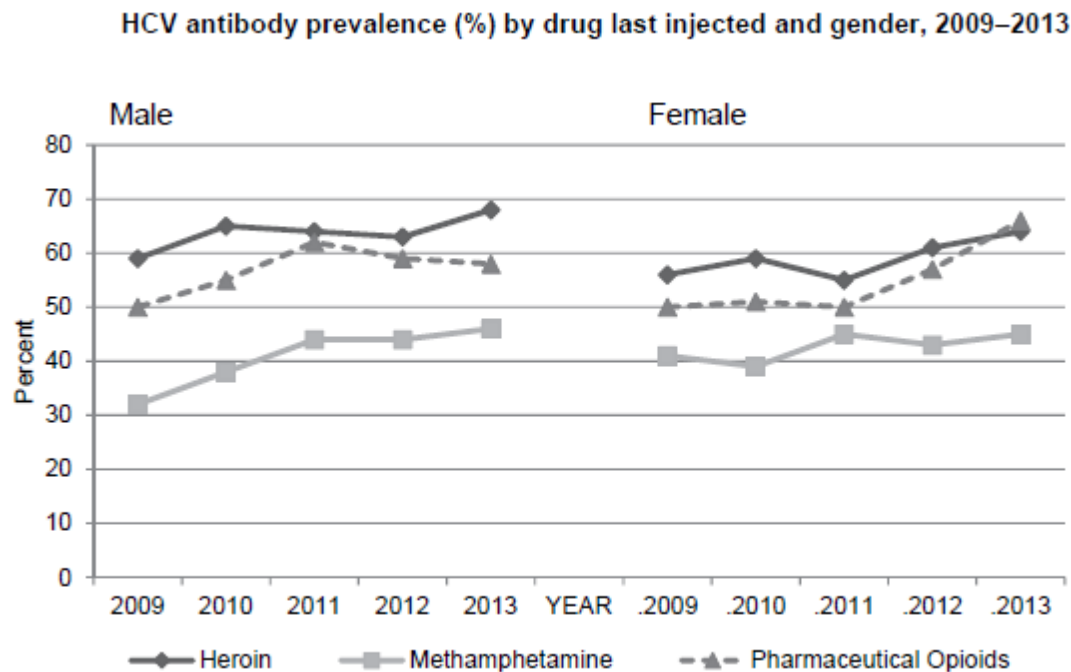
HIV antibody prevalence (%) by gender and sexual identity, 2009–2013



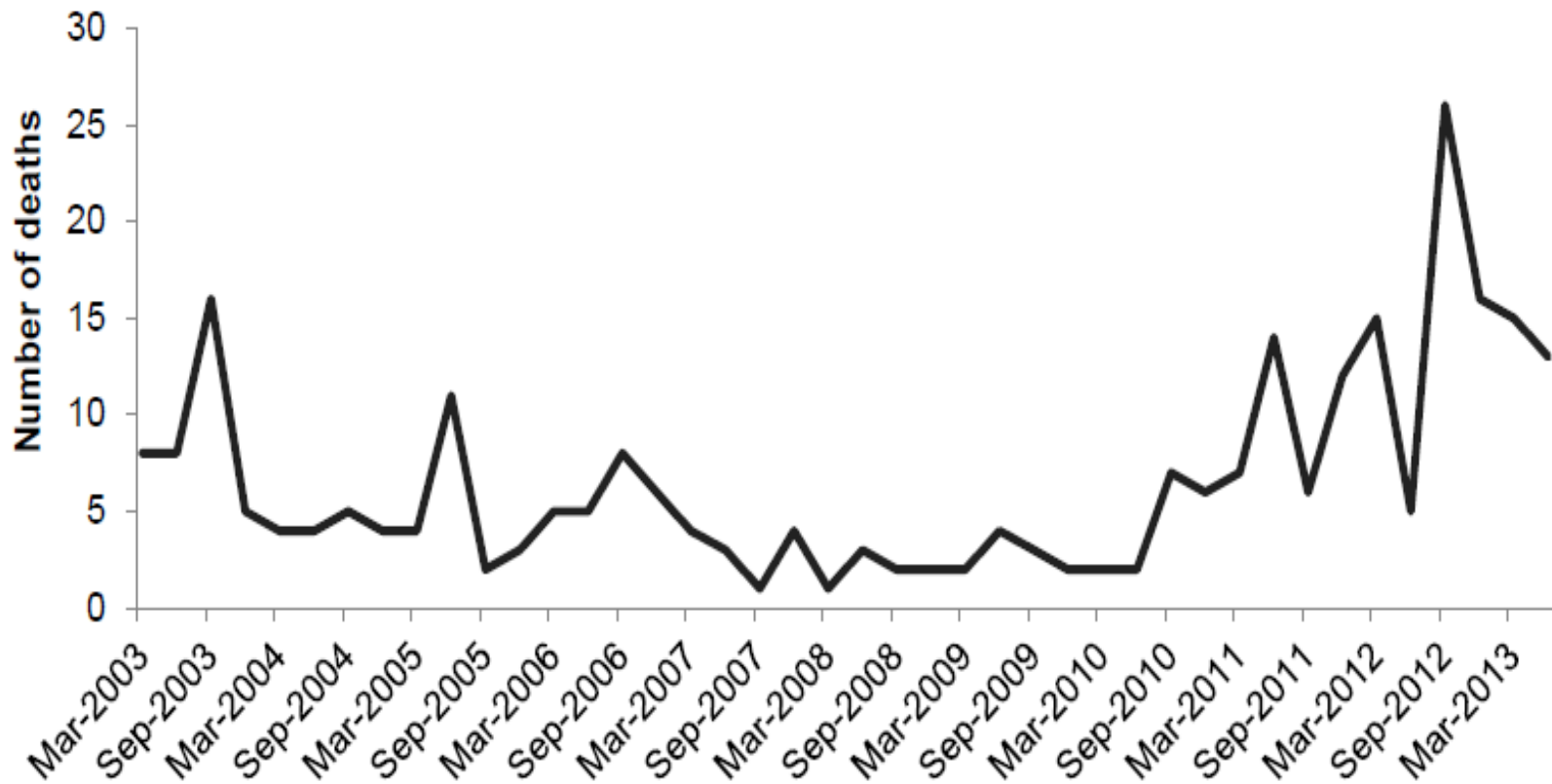
Iverson and Maher. Australian Needle and Syringe Program National Data Report 2009-2013. The Kirby Institute UNSW, Sydney 2014.

HCV

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

Hillhouse, M., et al., *Addiction*, 2007. 102(Suppl. 1): 84–95; Colfax et al *Lancet* 2010 376; 458-474; Shoptaw, S.J., et al., *Cochrane Database of Systematic Reviews* 2009(2); Srisurapanont, M., et al, *Cochrane Database Syst Rev*, 2001(4); Perez-Mana, C., et al.*Cochrane Database Syst Rev*, 2013. 9

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

B. Quinn et al 2013 Journal of Substance Abuse Treatment 45; 235–241; Quinn et al 2013 Int J Drug Policy 24(6) 619–623 ; Lee et al 2012 Advances in Dual Diagnosis 5(1)23-31.

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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