



**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

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- **Emerging trends**
- **Harms**
- **Response**
- **Future directions**

# Psychostimulants in Australia

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- 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

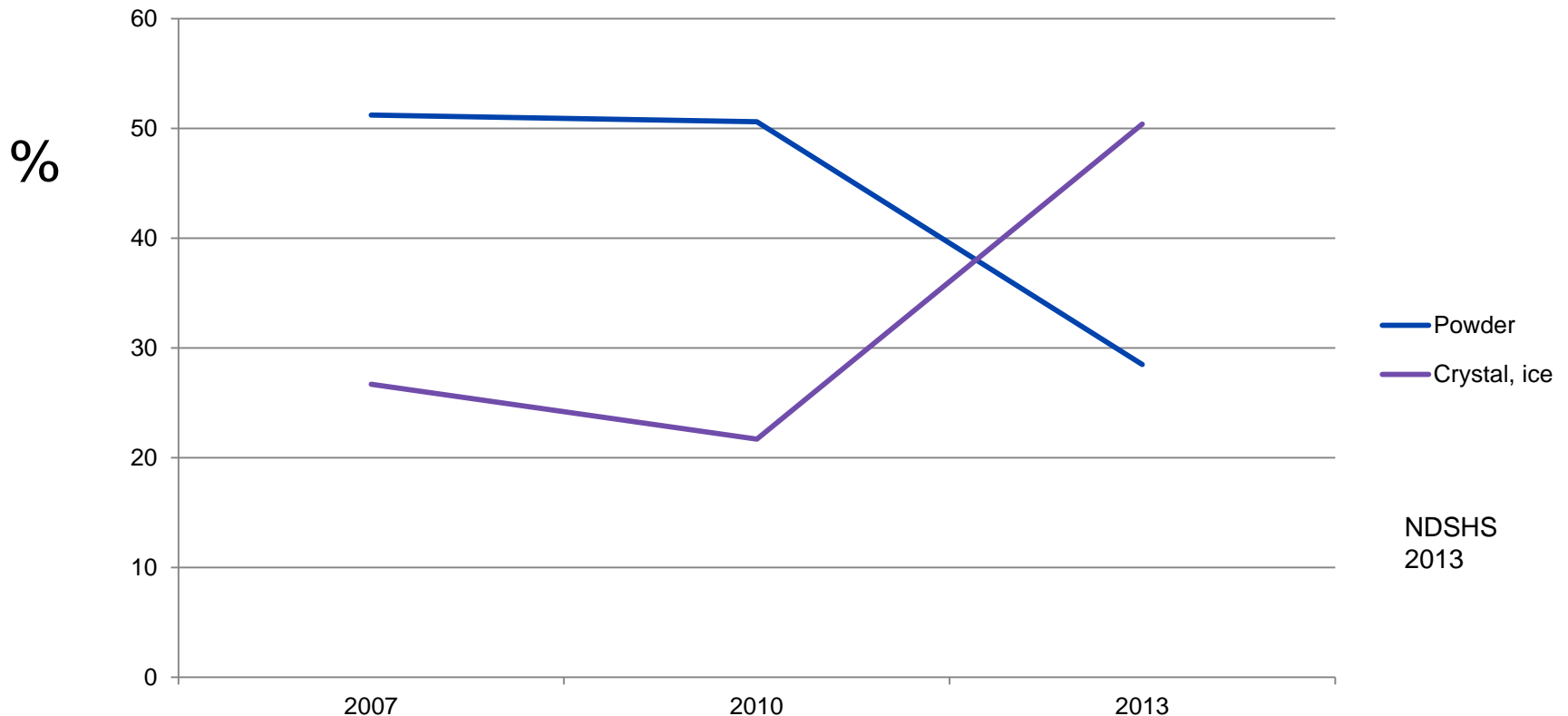
Form changed and frequency significantly increased compared with 2010

- 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.

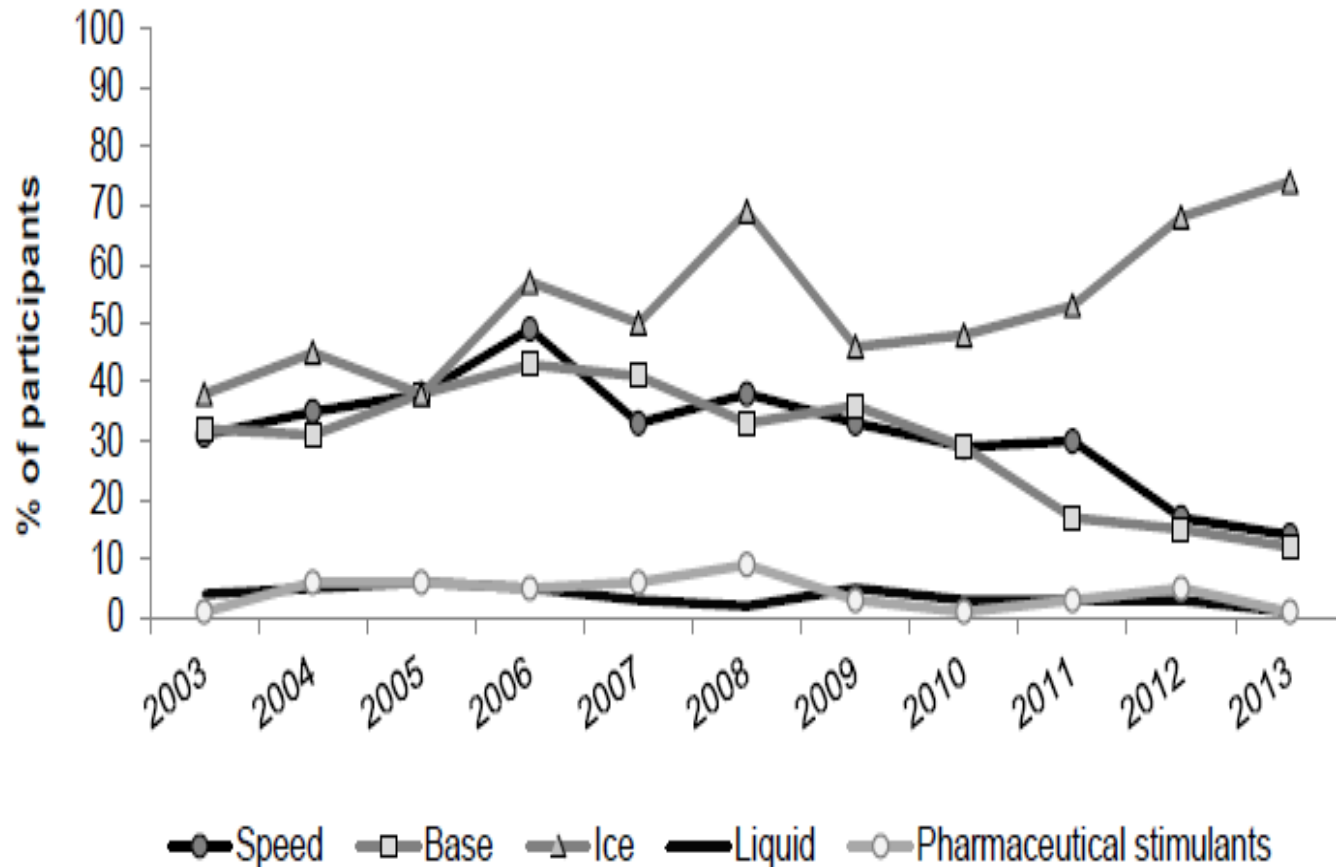
# Increasing % crystalline form of MA, NDSHS

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

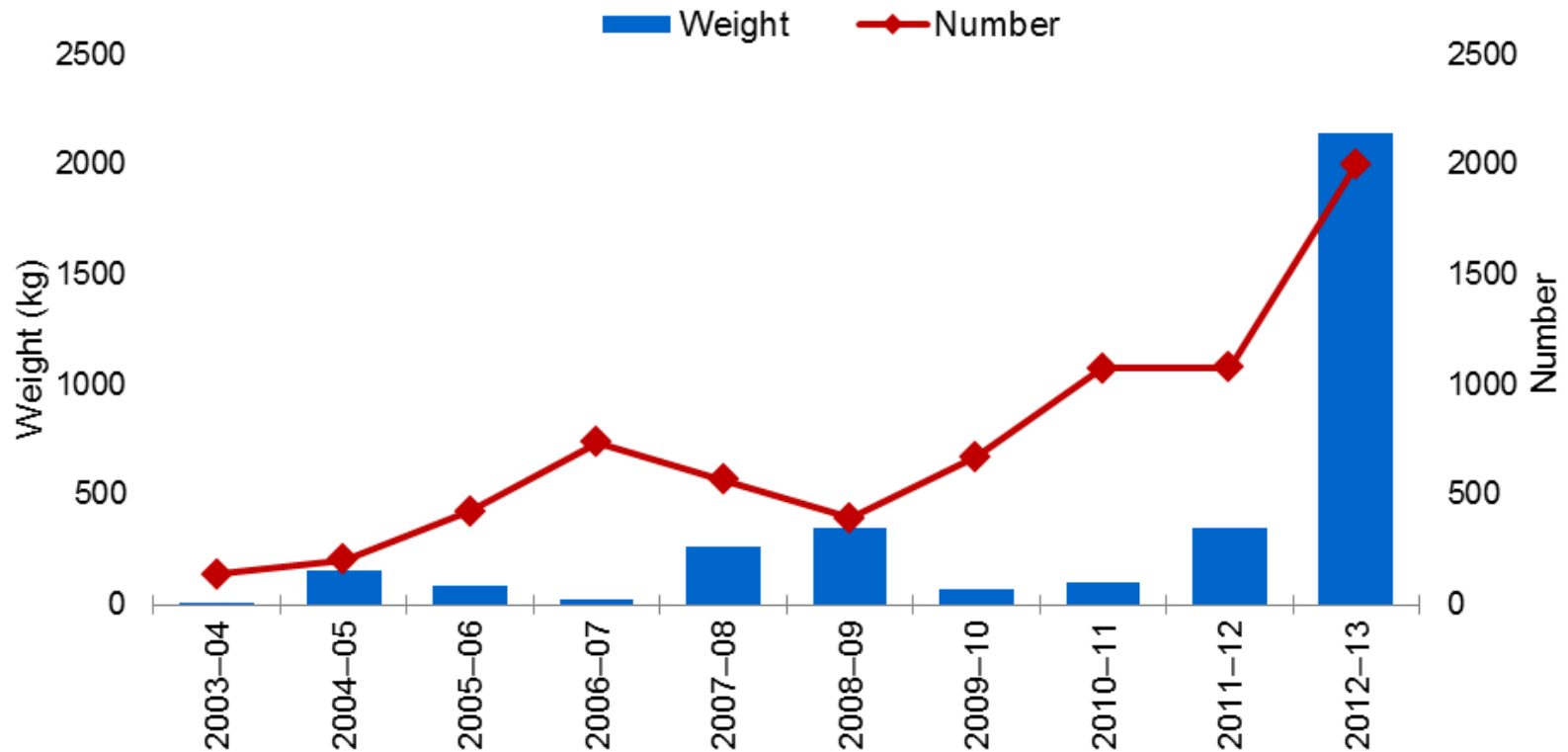


# Increasing % crystalline form of MA, IDRS

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

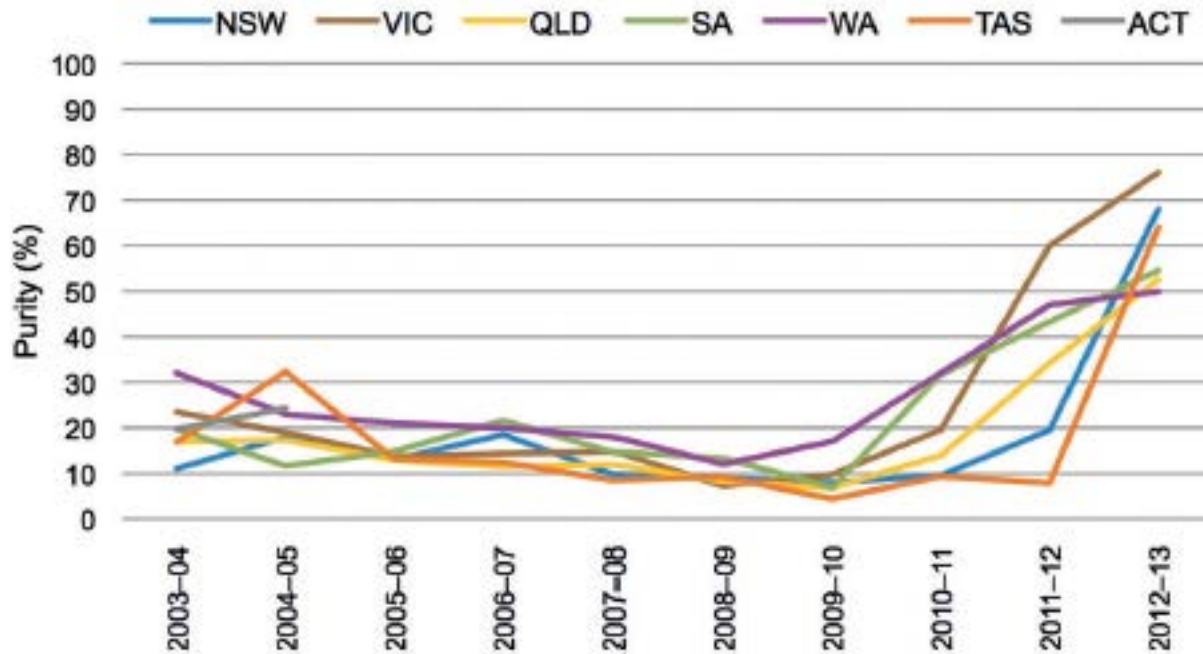


# Amphetamine type stimulants seizures, Australian border 03/04-12/13



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

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## Victorian data 2010-2011

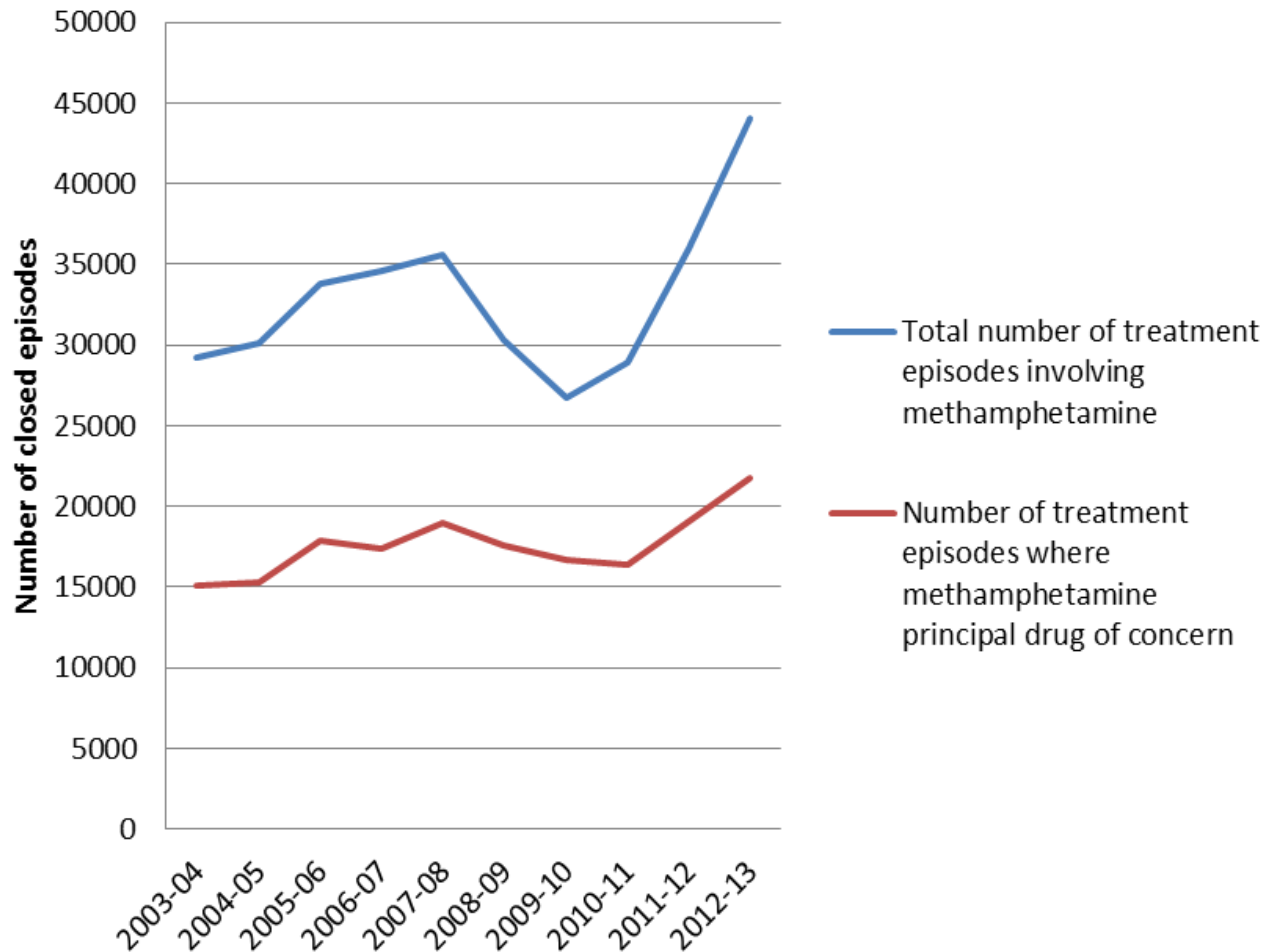
### Increased

- 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

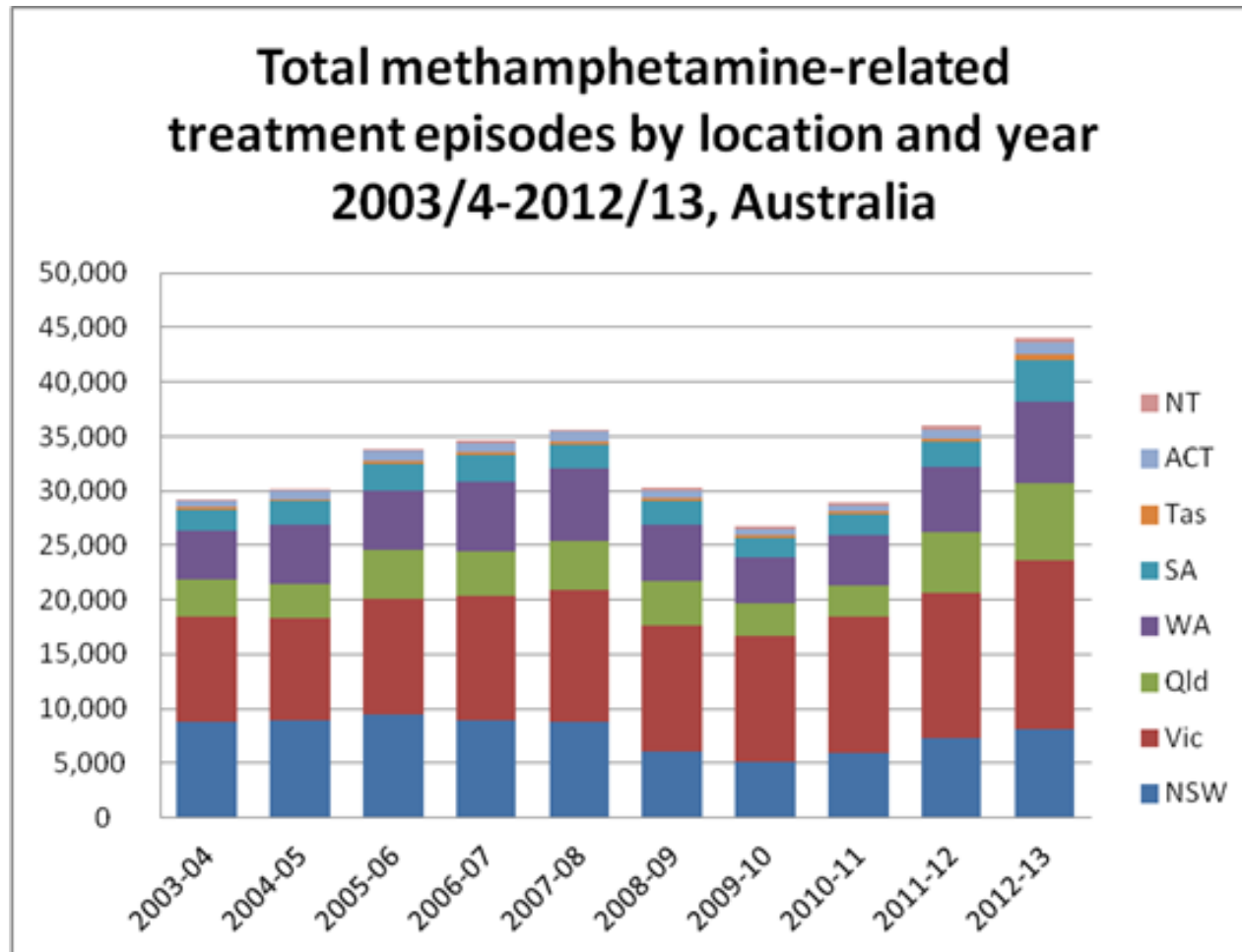
Heilbron et al 2013 Med J Aust 199 (6): 395

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



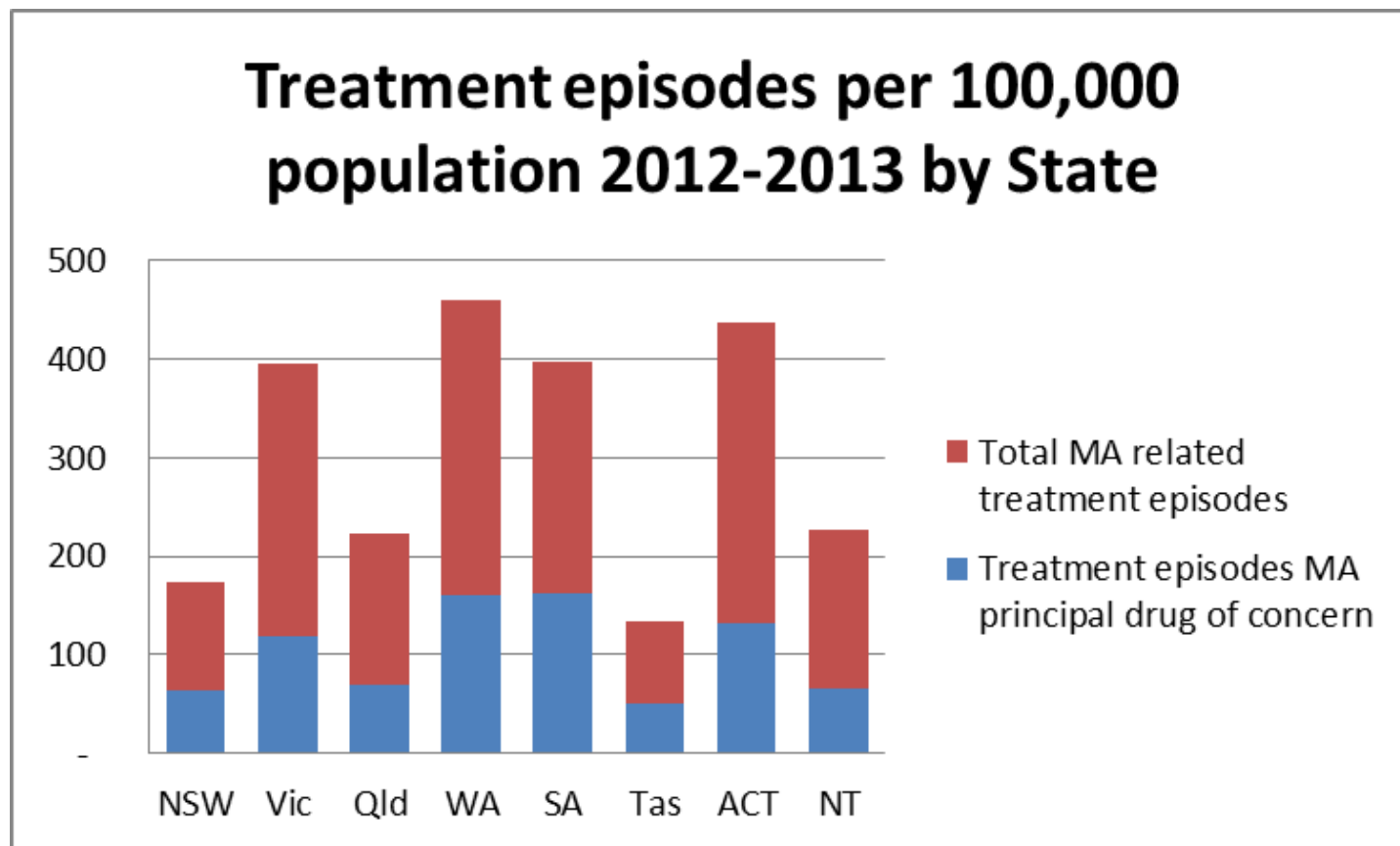
AIHW 2014.  
Alcohol and other drug treatment services in Australia National Minimum Data Set

# Victoria most affected State in absolute numbers



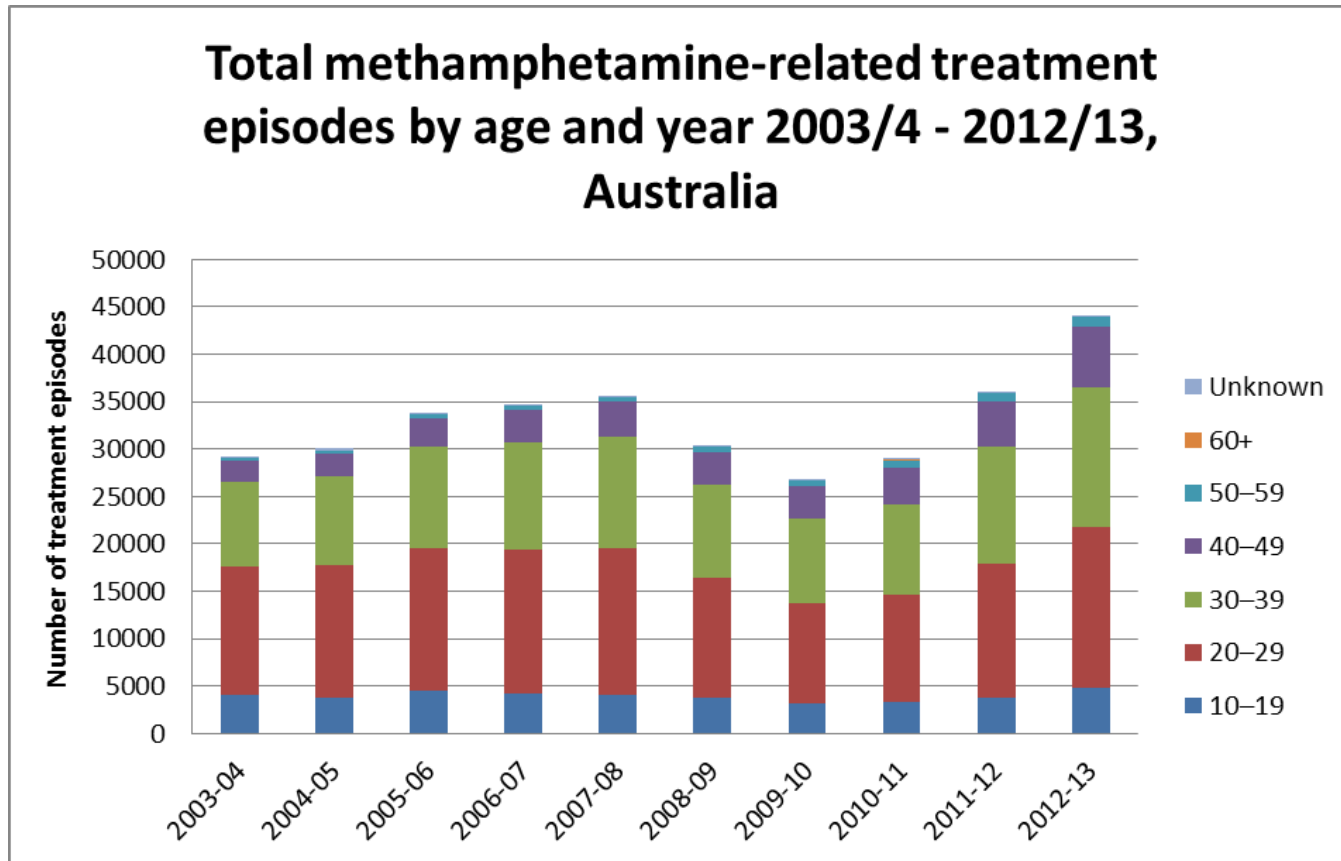
AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set

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



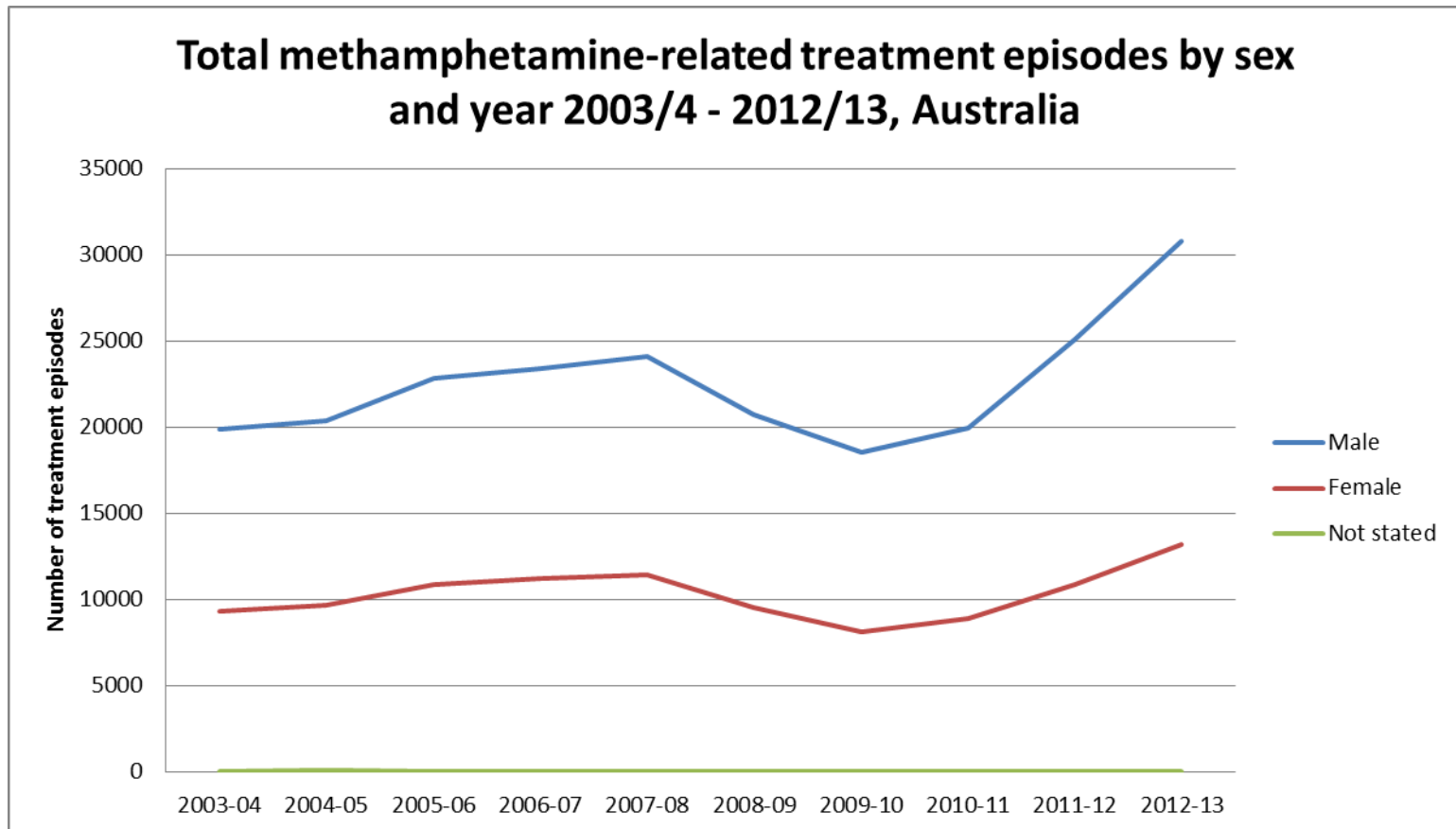
AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set; Australian Bureau of Statistics, Australian Demographic Statistics December 2012

# 20-39 year old age group most affected



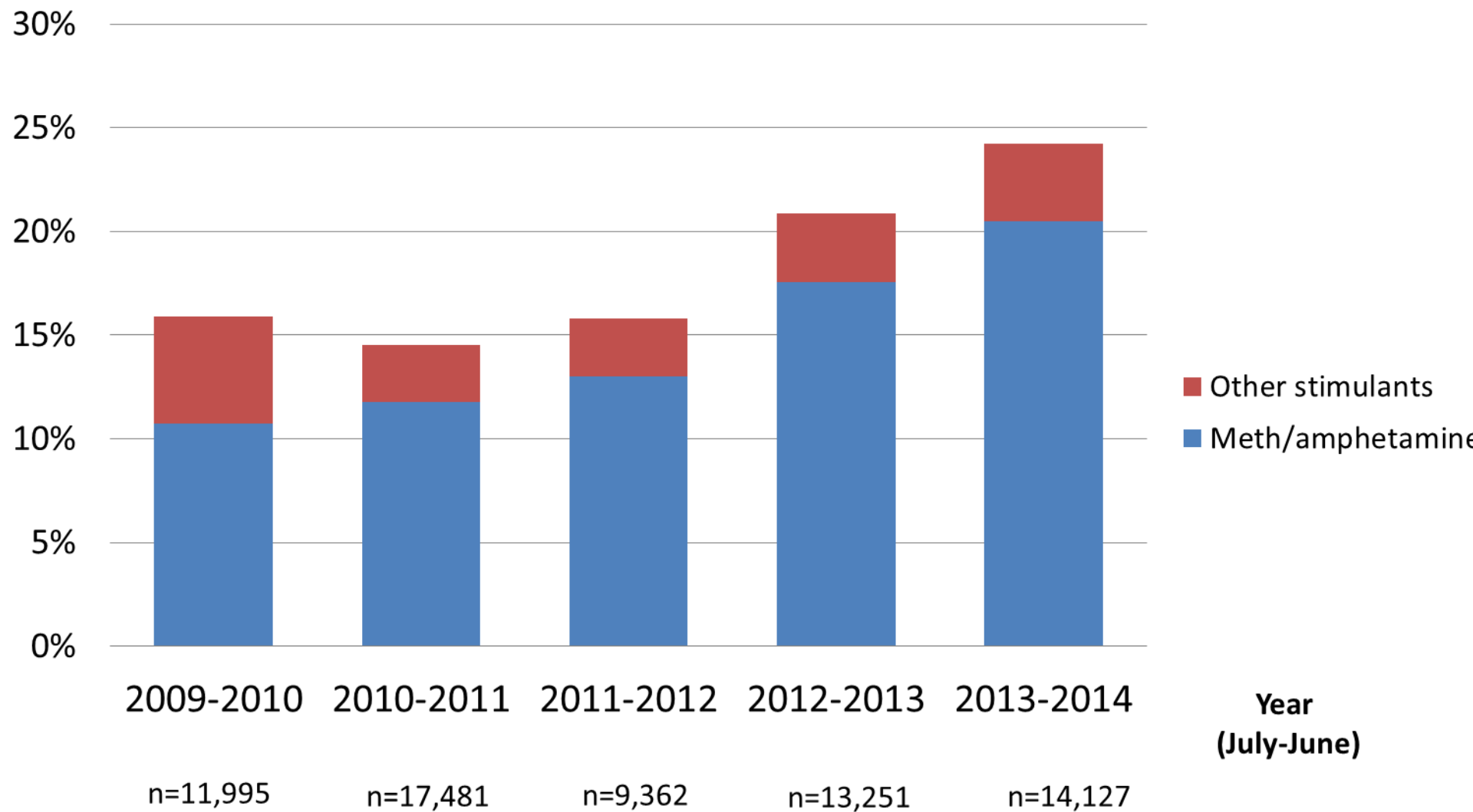
AIHW 2014. Alcohol and other drug treatment services in Australia National Minimum Data Set

# Men seek treatment more than women

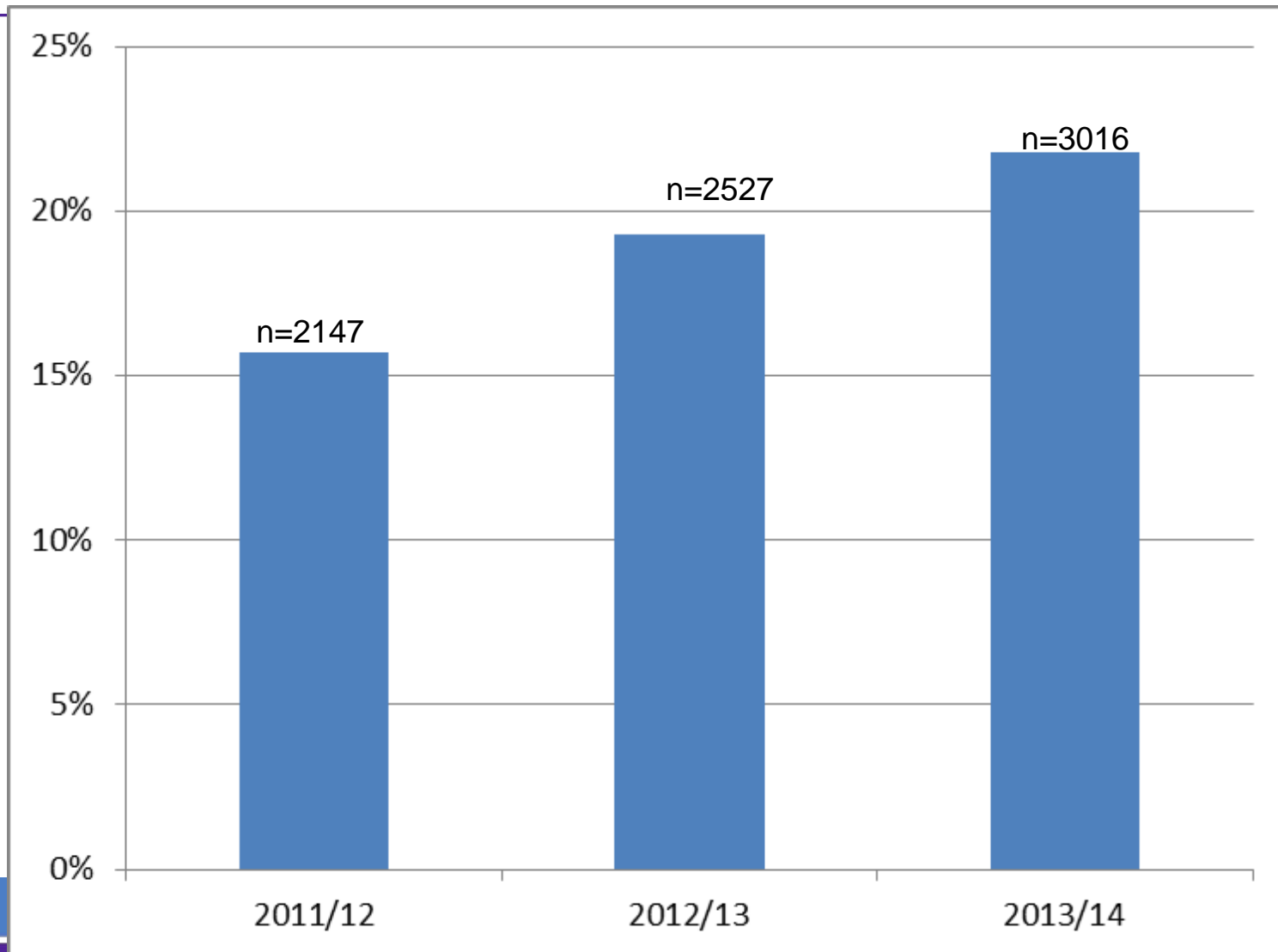


AIHW 2014. Alcohol and other drug treatment services in Australia, National Minimum Data Set

# 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)





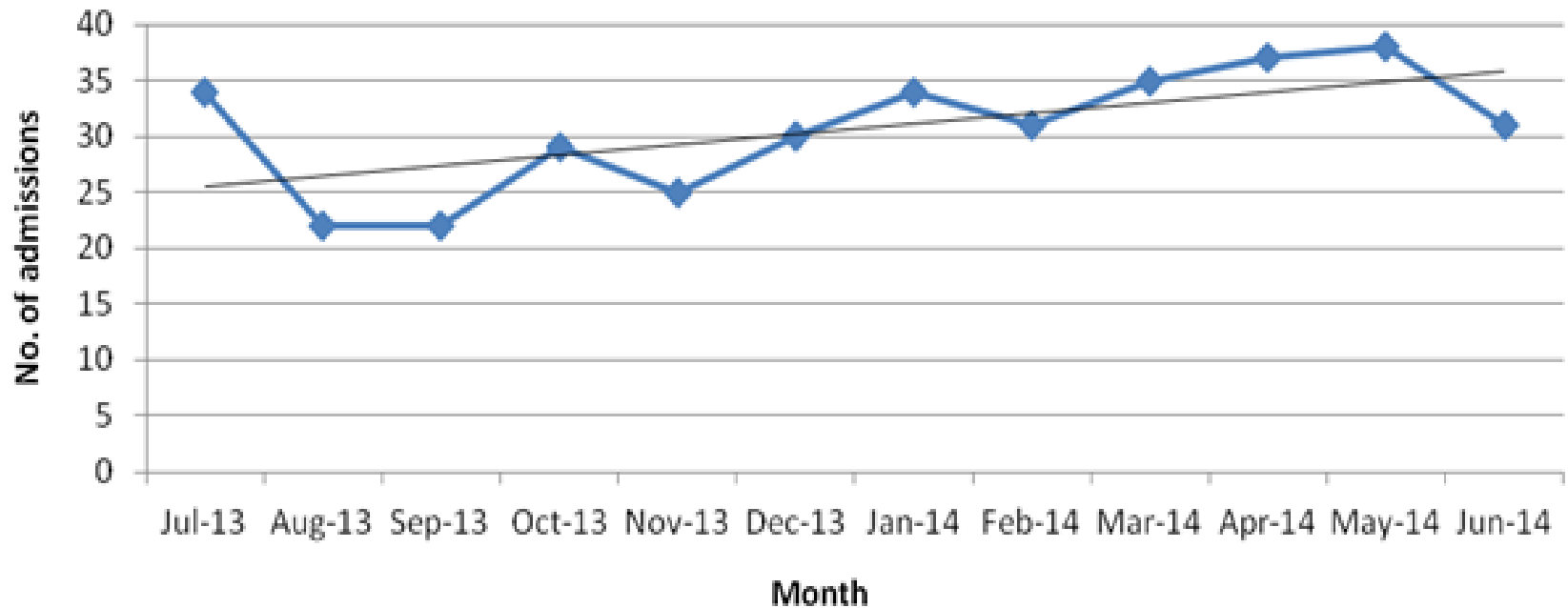
## Total monthly counts of methamphetamine-related Emergency Department presentations to metropolitan Sydney hospitals, January 2009 to June 2014

Number of presentations

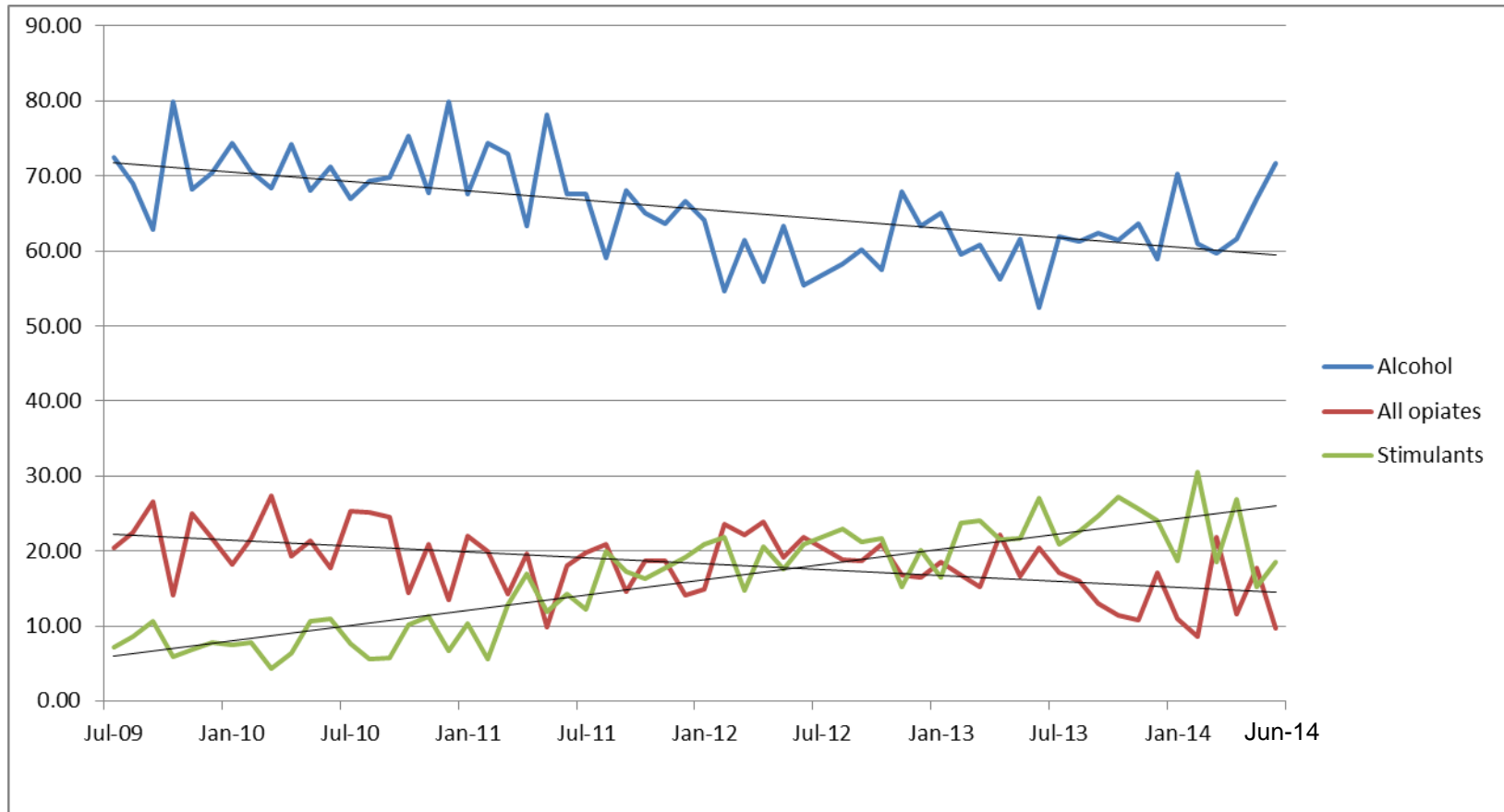


Prepared by: Tina Navin Cristina and Julia Chessman, Centre for Epidemiology and Evidence, July 2014. Data source: NSW emergency department and ambulance public health surveillance system (PHREDSS), Centre for Epidemiology and Evidence, NSW Ministry of Health.

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

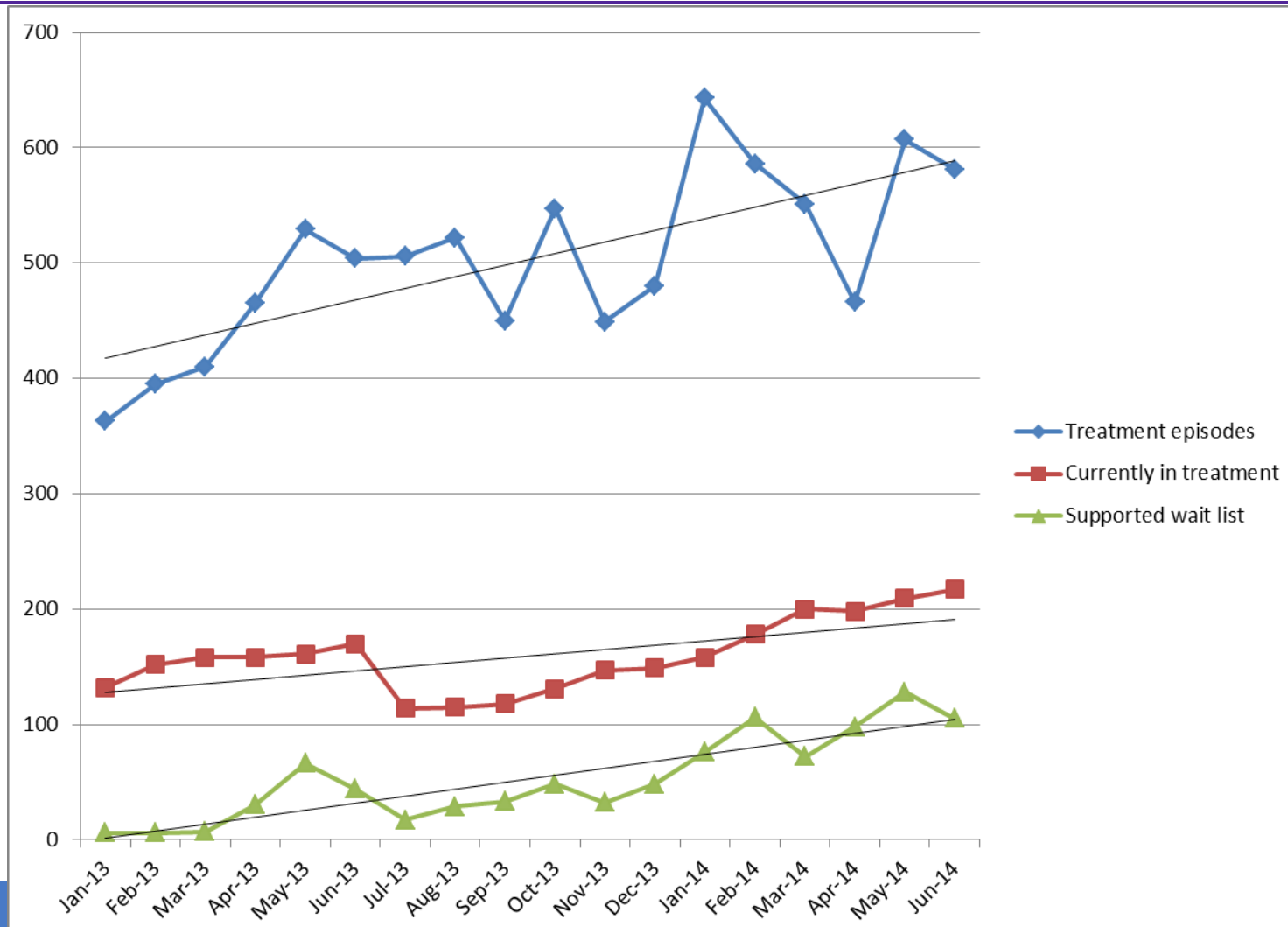


# Proportion of admissions to Gorman House residential withdrawal unit by primary drug of concern by month 07/09-06/14



# SVH Stimulant Treatment Program

## Increasing demand 01/13-06/14



# HIV and methamphetamine

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## **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**

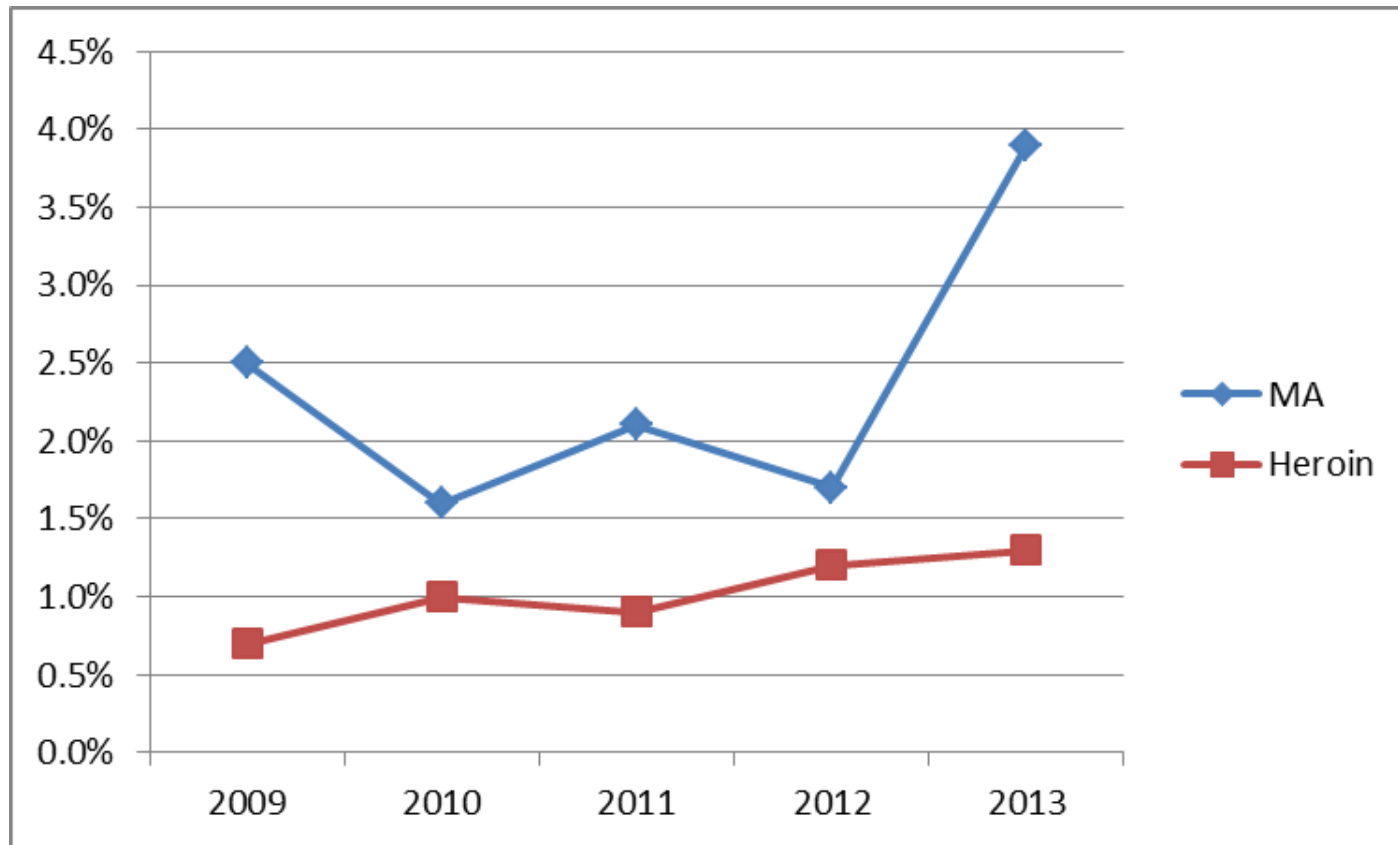
**Independent association with HIV infection even when controlling for behavioural risks ?cofactor in enhancing HIV infection and replication**

**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+**

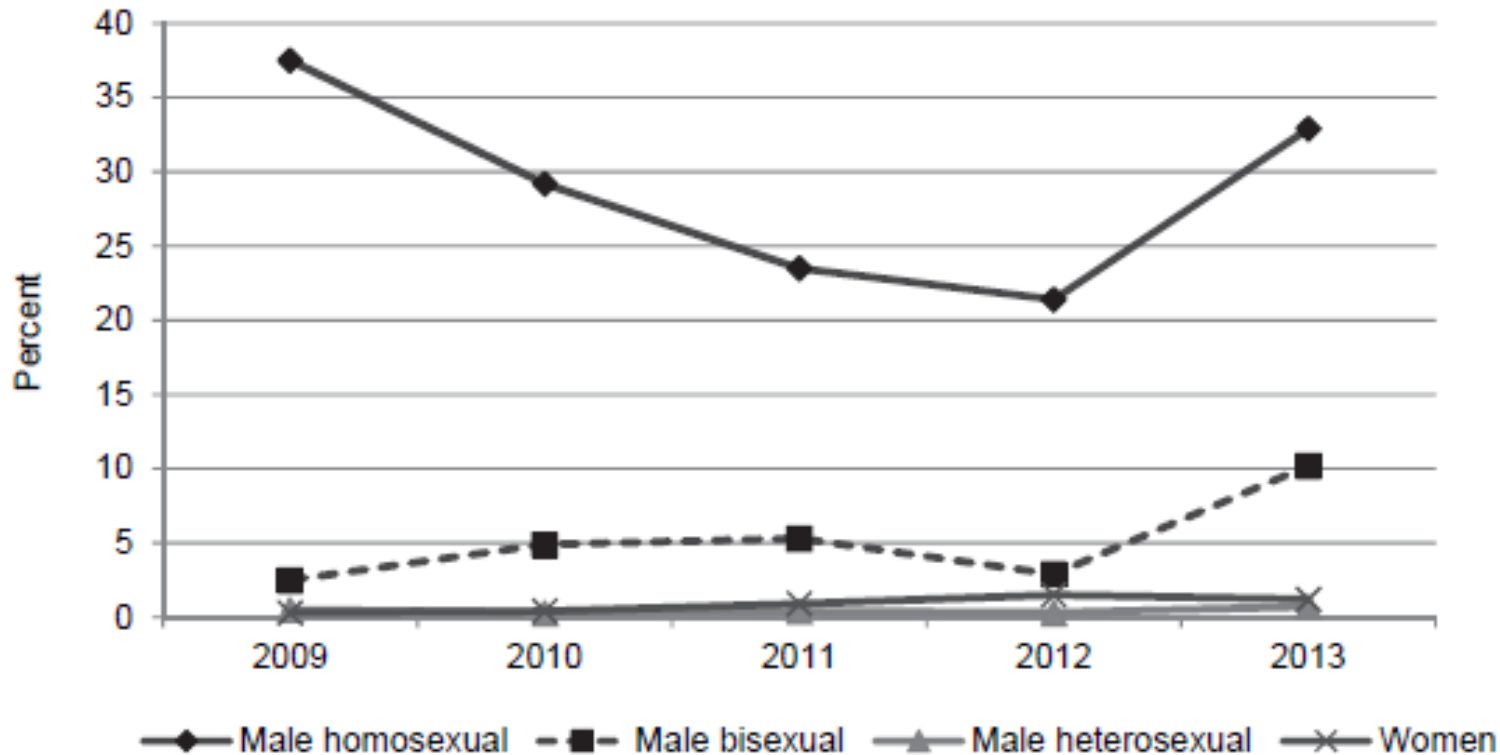
Rajasingham et al 2012 AIDS Patient Care and STDs 26(1) 36-52; Colfax et al 2010 Lancet 376;458-474;  
Fairbairn Addictive Behaviors, July 2011, Vol.36(7), pp.762-763

# 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.

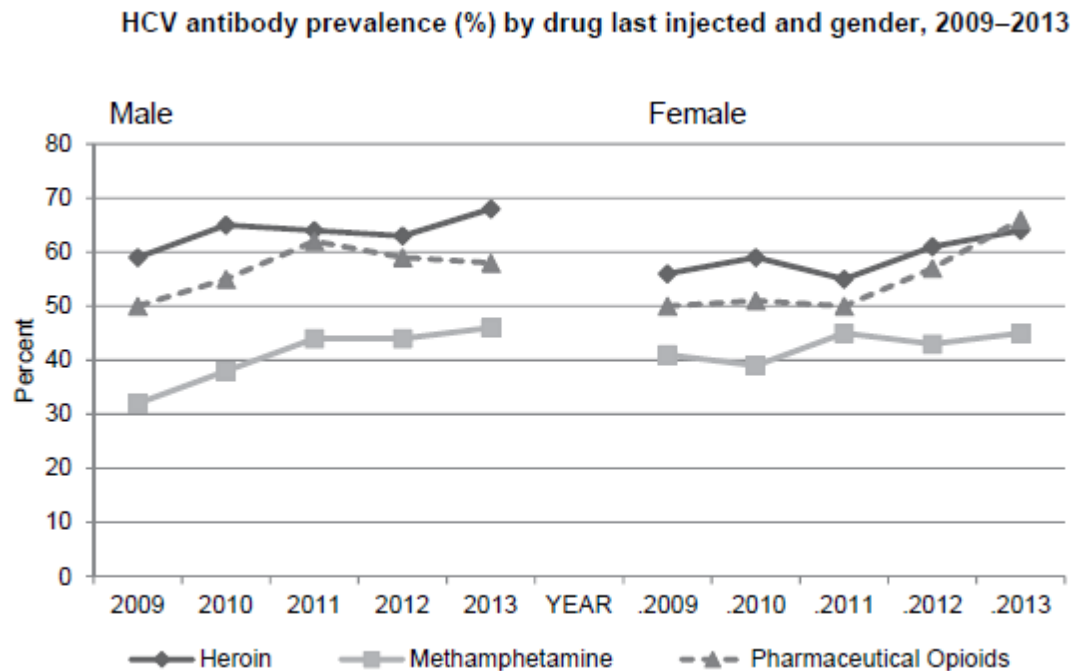
### HIV antibody prevalence (%) by gender and sexual identity, 2009–2013



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

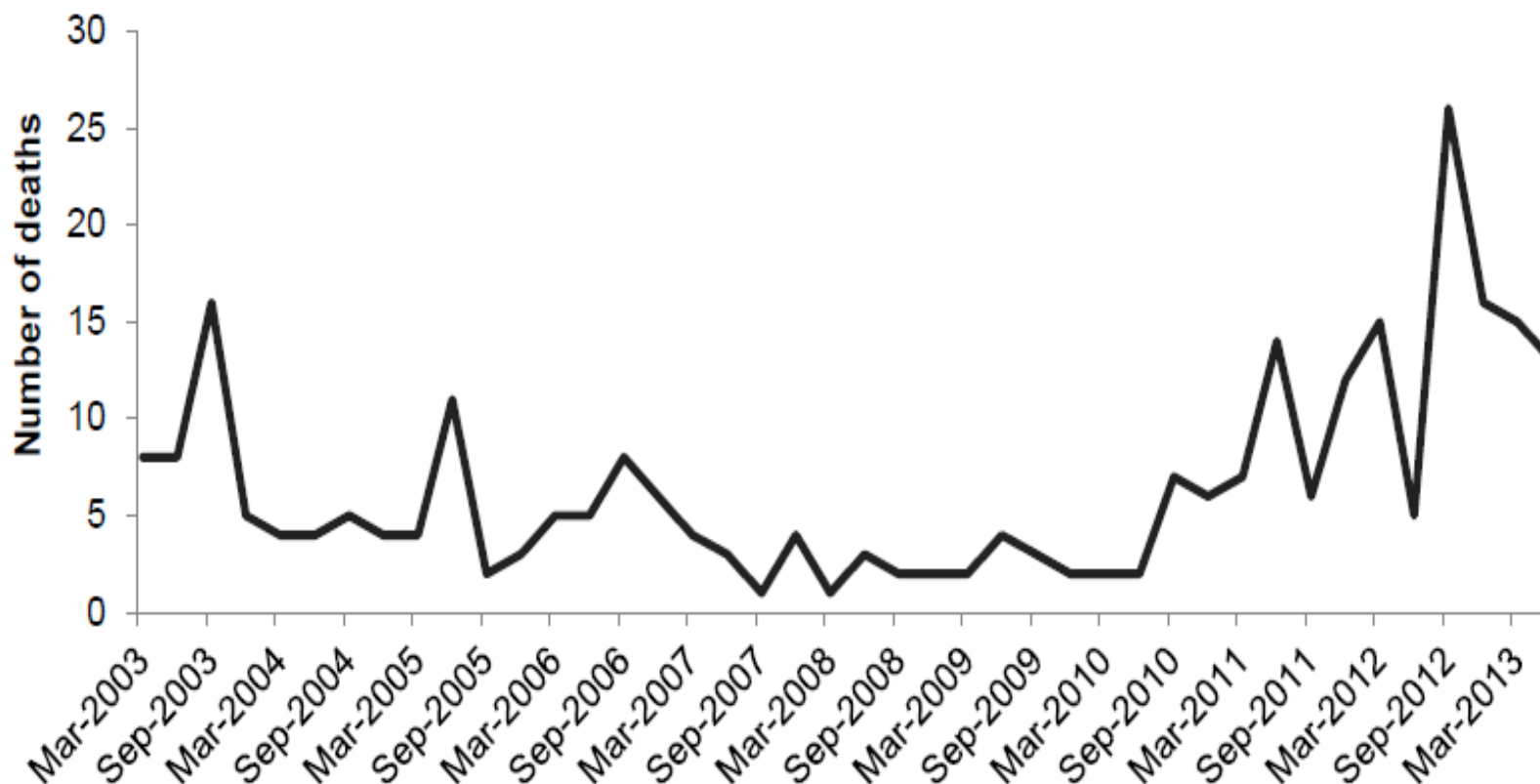
# HCV

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

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## 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

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## 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

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## 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

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- 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

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## 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

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- **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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