

Trends in methamphetamine use and harms

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Trends in methamphetamine use

Sources of Data

National Household Surveys

Other indirect methods

Surveillance and other information

Wastewater Analysis

Health Data

Police and Arrest Data

Prevalence of methamphetamine use as measured in household surveys

Prevalence of methamphetamine use estimated in Australian surveys remains stable (2.1%, in 2010 and 2013 NDSHS)

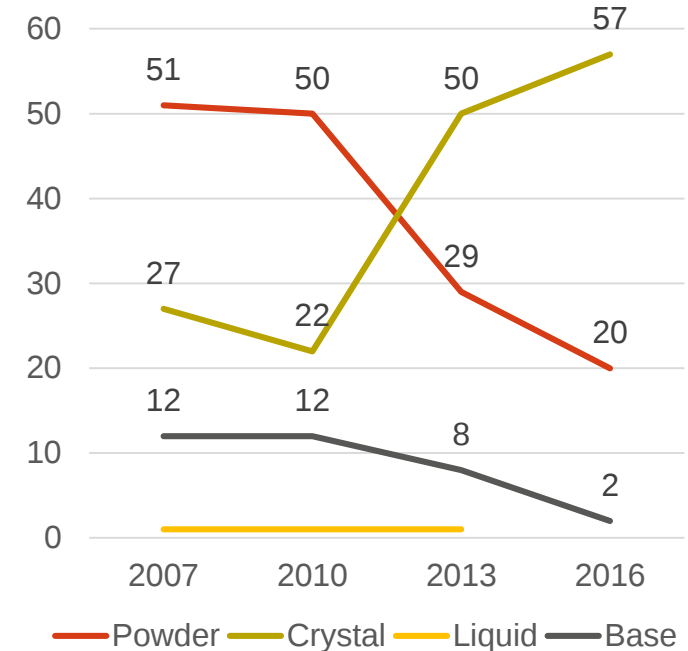
However, a shift towards using crystal over other forms among those who use methamphetamine.

- 21.7% in 2010
- 50.4% in 2013
- 57.3% in 2016

There has also been an increase in the frequency of use, weekly methamphetamine use increased in 2013

- 9.3% reported weekly or more use in 2010
- 15.5% in 2013
- 20.4% in 2016

Forms of meth/amphetamine used, recent ^(a) users aged 14 years or older, 2007-2016 (percent)



^(a) Used in the previous 12 months
Source: 2016 National Drug Strategy Household Survey

Issues with these data

- Important to remember that household surveys underestimates more stigmatised and less common forms of substance use
- Less sensitive in detecting small changes in prevalence
- Ongoing discussion about the response rates in household surveys, which are declining over time (across most household-based surveys of this kind, not just the NDSHS)

Making “indirect” prevalence estimates

“Direct” estimates of prevalence (household surveys) underestimate what is thought to be “true” prevalence

- For example, in many countries the number of people estimated to have used heroin once in a given year, based on survey data, will be smaller than the number of people in treatment for heroin dependence

“Indirect” prevalence estimates attempt to overcome these problems

- This is an accepted approach to estimating prevalence in the illicit drug field and is used in many countries across Europe, North America and in Australia
- We have made such estimates for methamphetamine use in Australia over time
- It is worth noting that a behaviour engaged in 2-4% of the population will whatever method is used result in figures that will have wide confidence intervals.

Indirect prevalence estimates: multiplier method

Text box: Hypothetical example of an estimate of the number of dependent amphetamine users based on treatment episodes for amphetamine dependence

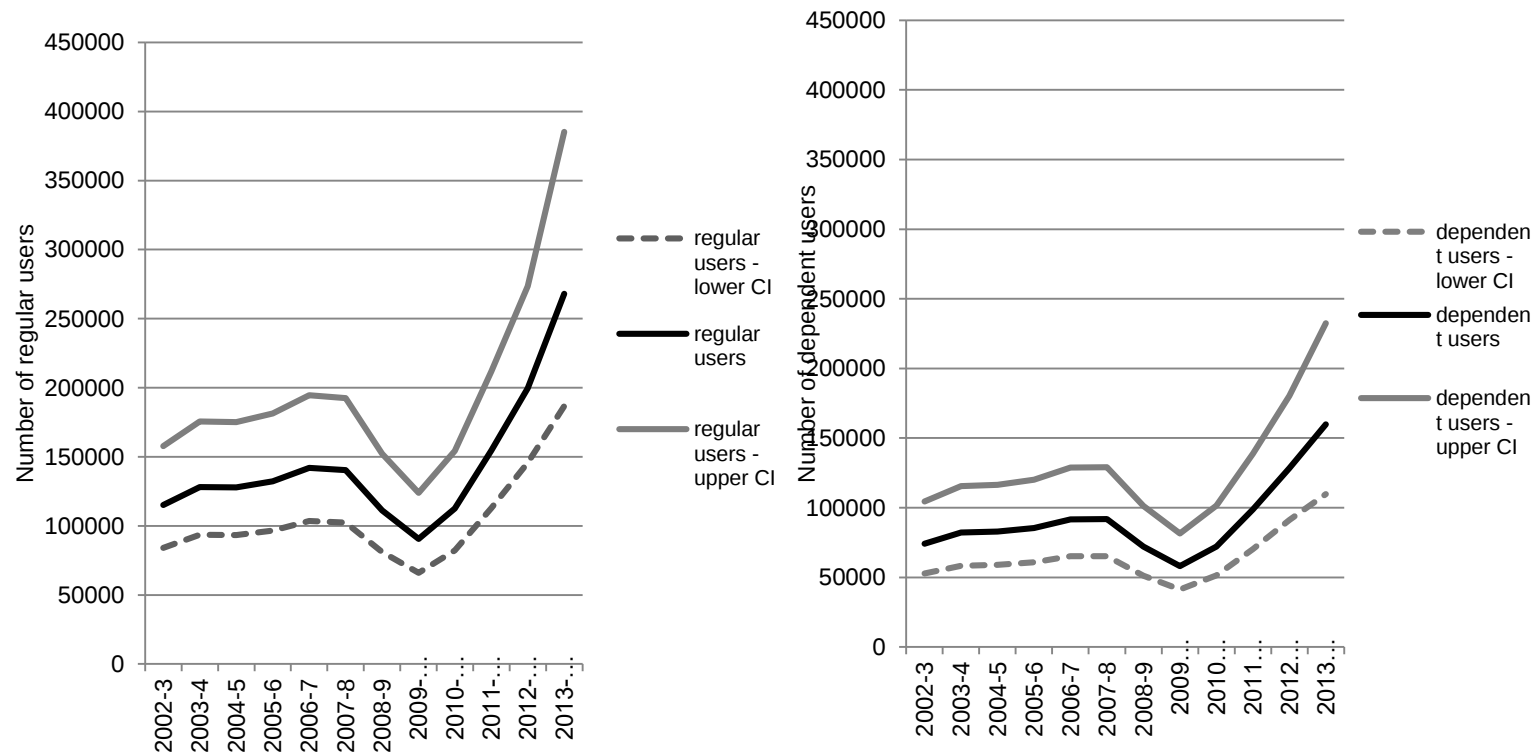
Benchmark data: the number of episodes across Australia in a given year for treatment of amphetamine dependence

Multiplier: the inverse of the proportion of people who are dependent upon amphetamines who receive treatment in a given year

In this hypothetical example, data suggest that 20,000 Australians received treatment for amphetamine dependence in a given year. Surveys of dependent amphetamine users indicate that 10% received treatment in a given year. This gives a multiplier of 10.

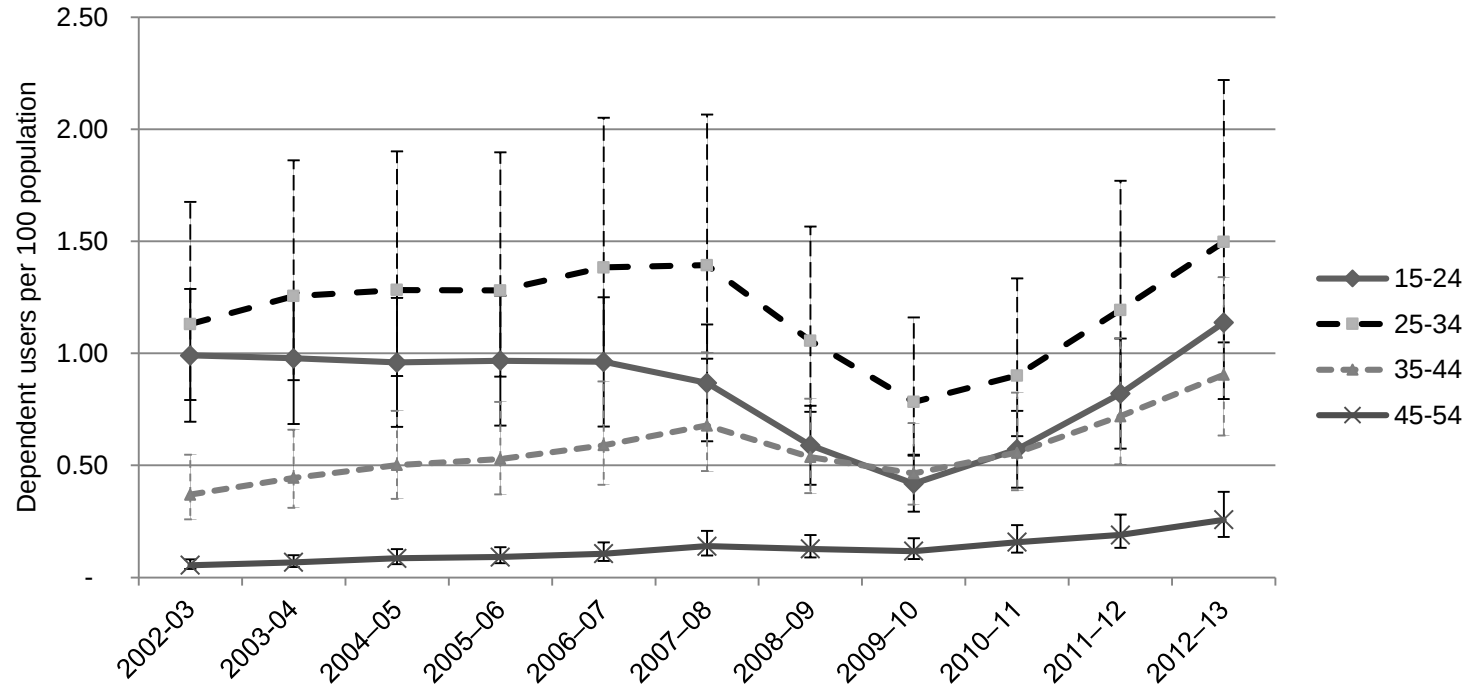
Limitations of this method is clear in that it relies on the estimates derived from a survey at a given time in a given locality and may significantly vary across time and place. We remain of the view despite recent criticism that a multiplier based on a 10% treatment utilization is a reasonable and moderate estimate.

Estimated number of people (15-54 years) with regular and dependent methamphetamine use, Australia, 2002-2014



Degenhardt L, et al. Estimating the number of regular and dependent methamphetamine users in Australia, 2002–2014. Medical Journal of Australia. 2016;204(4):153

Estimated prevalence of methamphetamine dependence by age group in Australia, 2002-2013

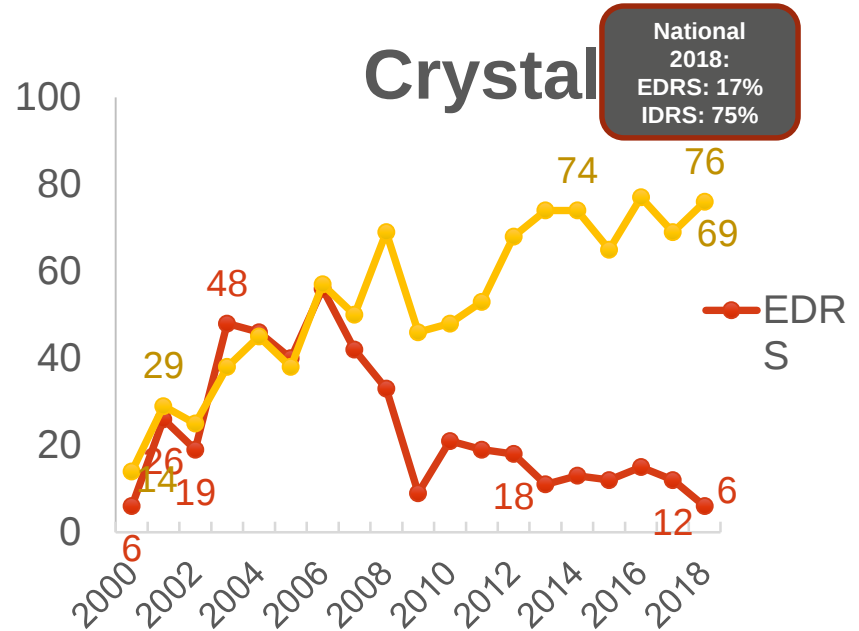
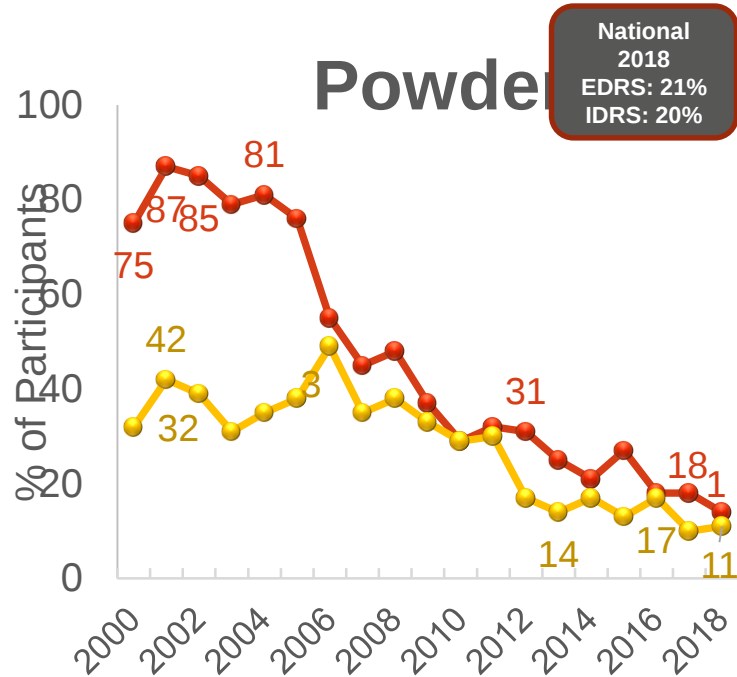


Summary of indicator data

- Consistent evidence of increases in purity, availability and harms
- However, two different explanations could be true:
 - increasing harms reflect an increased risk of adverse consequences among a population of users that is not changing in size;
 - there are people “new” to methamphetamine use who are developing harms;
 - ...or a combination of both

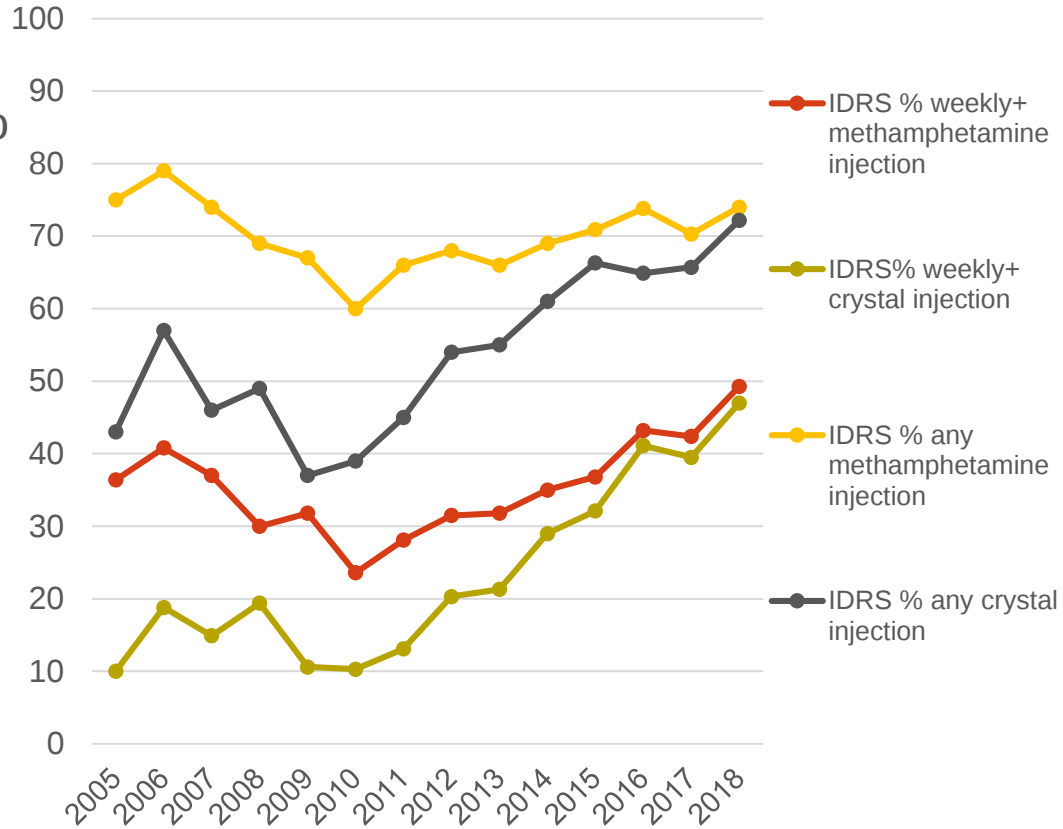
Is use increasing among existing users?

Recent methamphetamine use



Use among people with established histories of heavy/injecting substance use

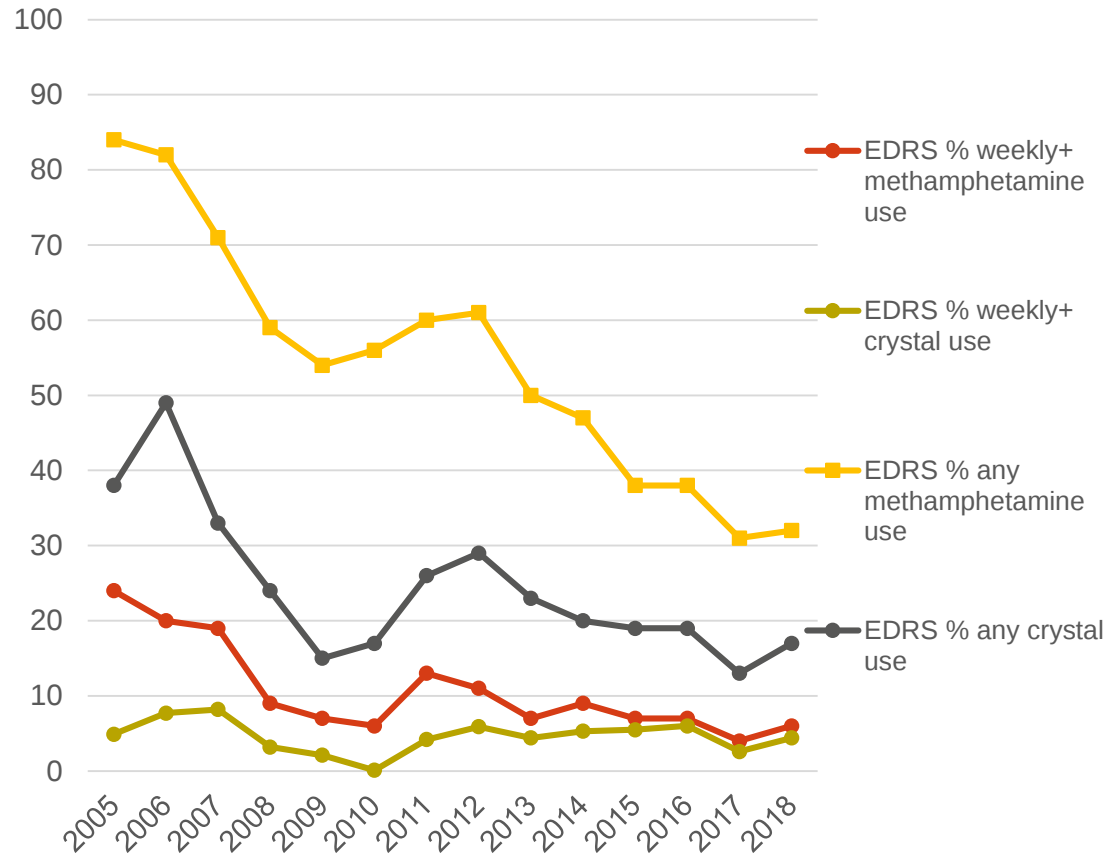
- IDRS has been across Australia since 2000 and includes surveys with people who inject drugs in capital cities
- High, stable levels of methamphetamine injection overall among people who inject drugs regularly (IDRS)
- Crystal methamphetamine increasingly used
- Weekly+ use at highest levels (one in three)
- Evidence supporting increasing use in people who inject drugs



Source: Degenhardt et al., 2017

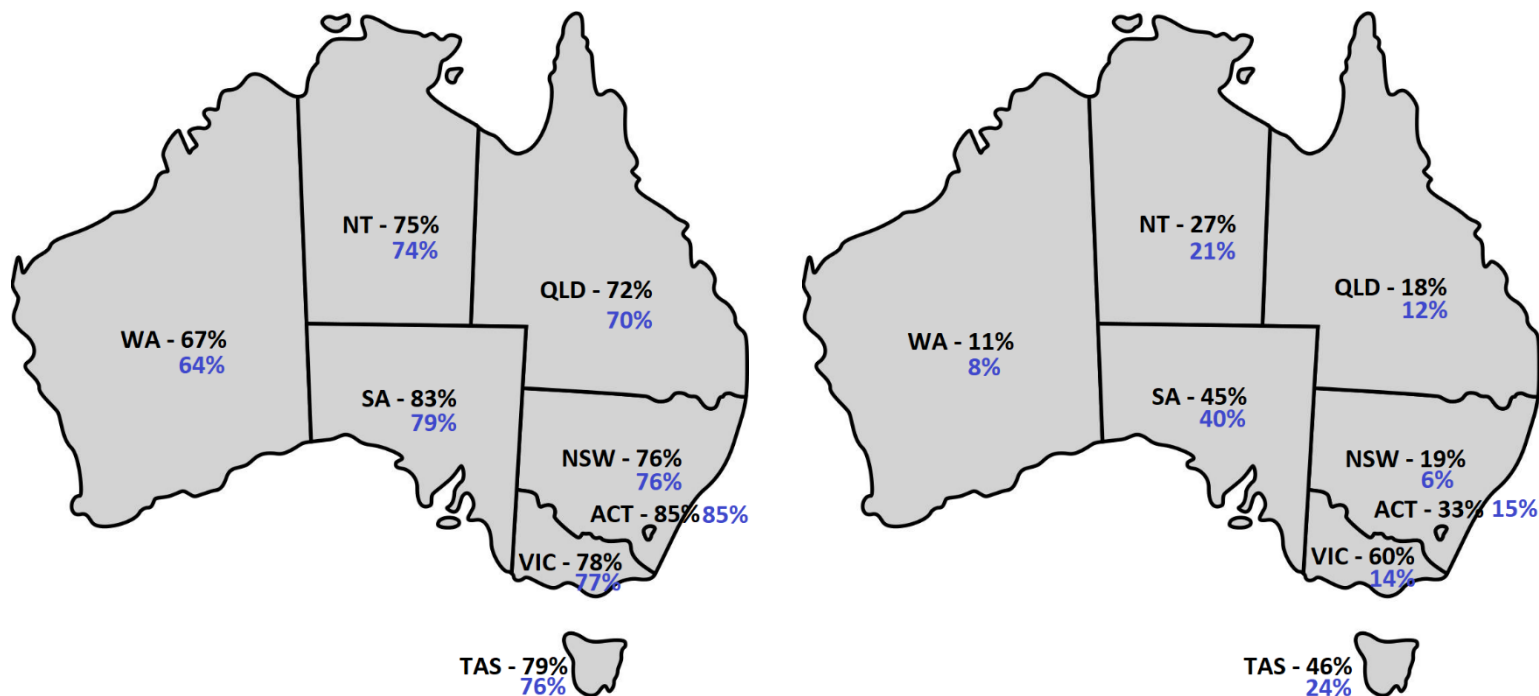
Use among existing methamphetamine users?

- EDRS has been run across Australia since early 2000s
- Includes surveys with regular ecstasy users in capital cities each year
- No evidence that methamphetamine or crystal methamphetamine increasing in EDRS samples



Source: Degenhardt et al., 2017

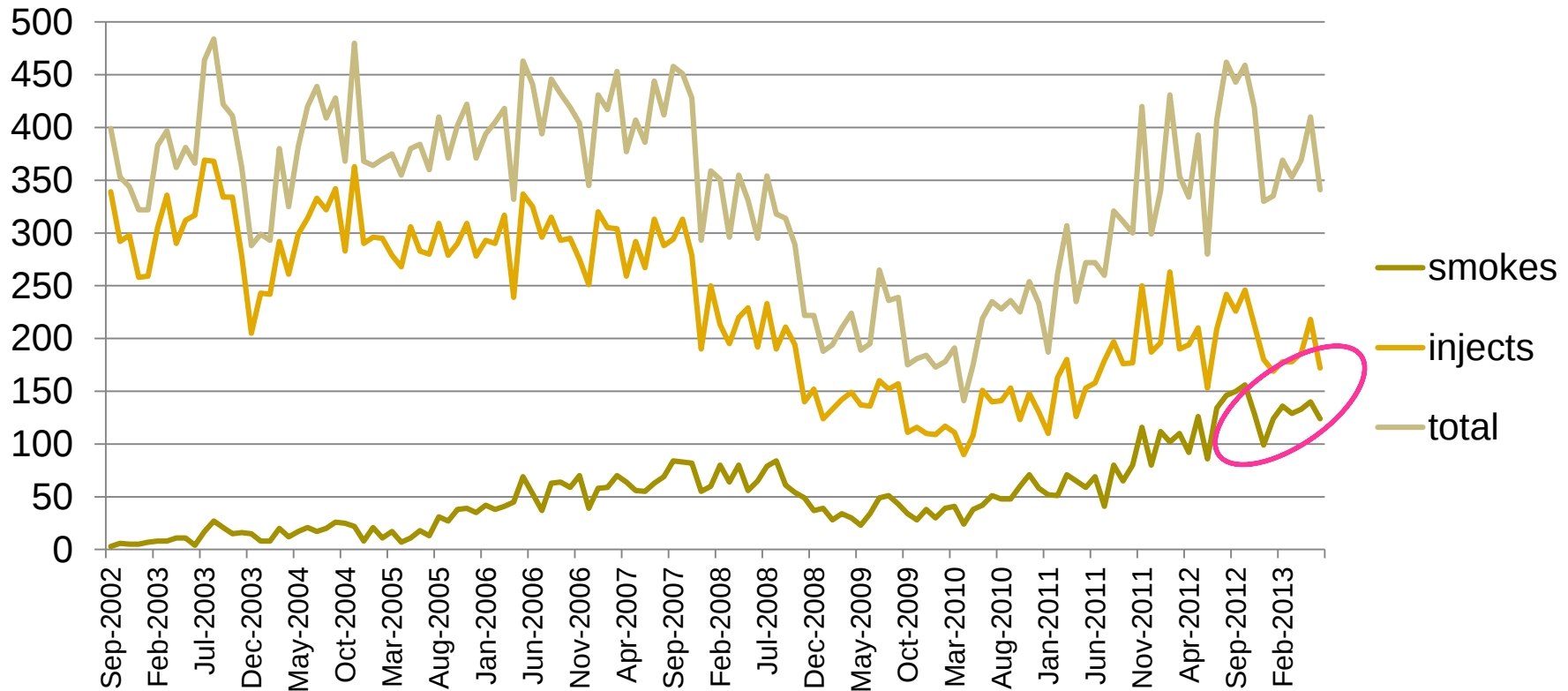
Past six month use of any methamphetamine and crystal for IDRS (Left) and EDRS (Right)



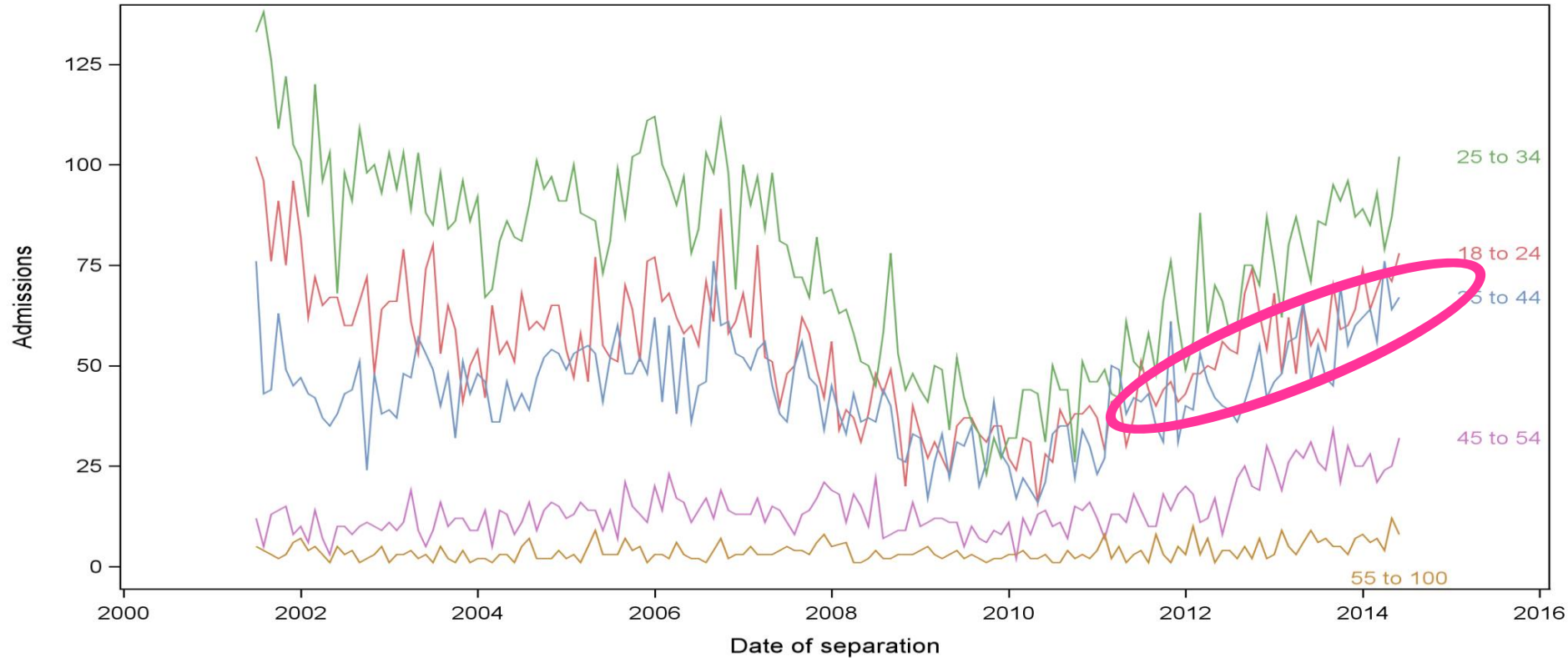
— Any methamphetamine use within the last 6 months
— Crystal methamphetamine use within the last 6 months

Is there any evidence of “new” users?

Increasing treatment episodes among people smoking methamphetamine



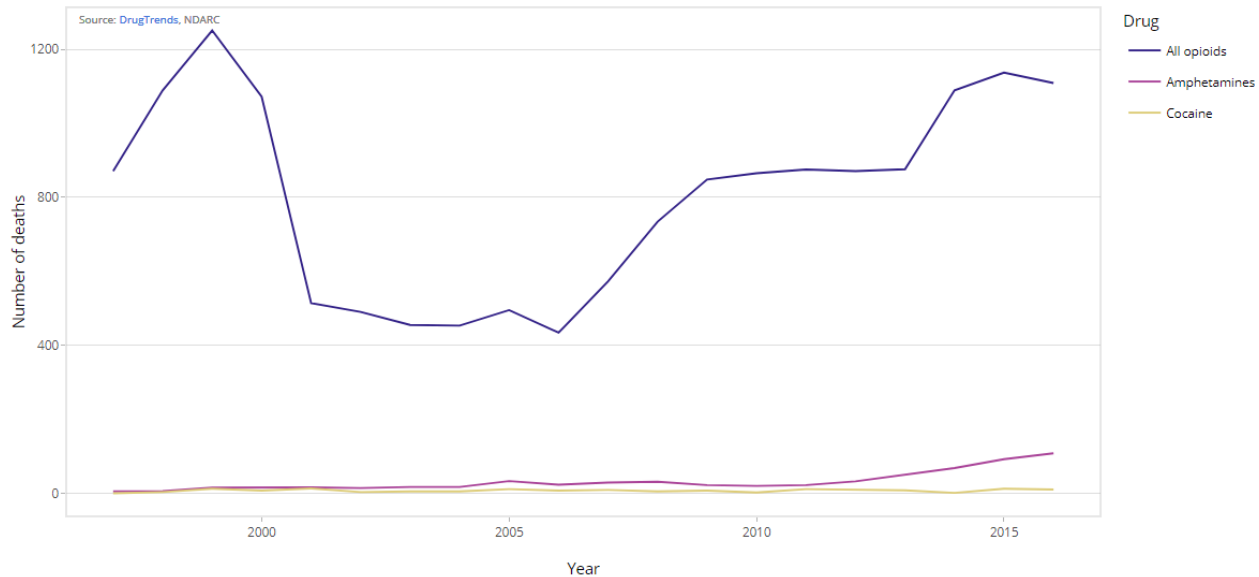
Increases in first-time stimulant admissions, including among 18-24 year olds



Summary

- ...these data suggest that it may be a combination of both increases in use among people with established substance use careers (e.g. people who inject drugs)
- ...and people who are smoking the drug
- ...and these include people who are young adults
- ...and those who are coming to the attention of law enforcement or health for the first time with these problems

Amphetamine-induced deaths in Australia

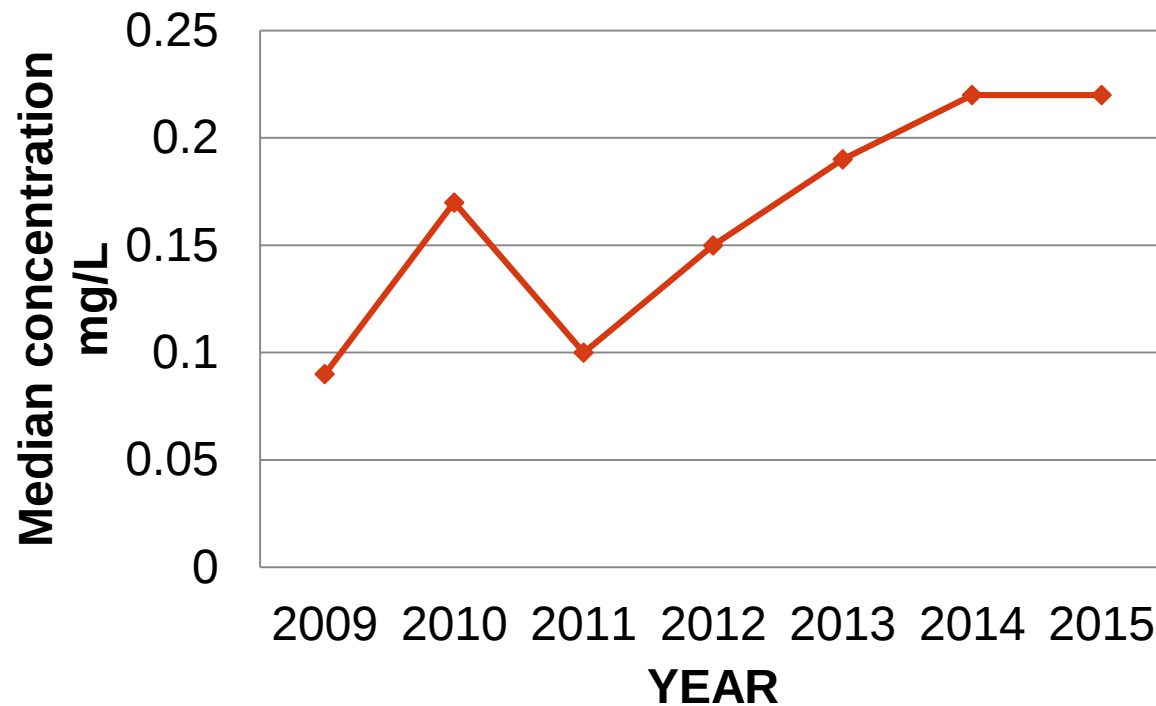


Note. Deaths are for all-ages and 2015 and 2016 estimates are preliminary. Small cell sizes may have been randomised to protect confidentiality.

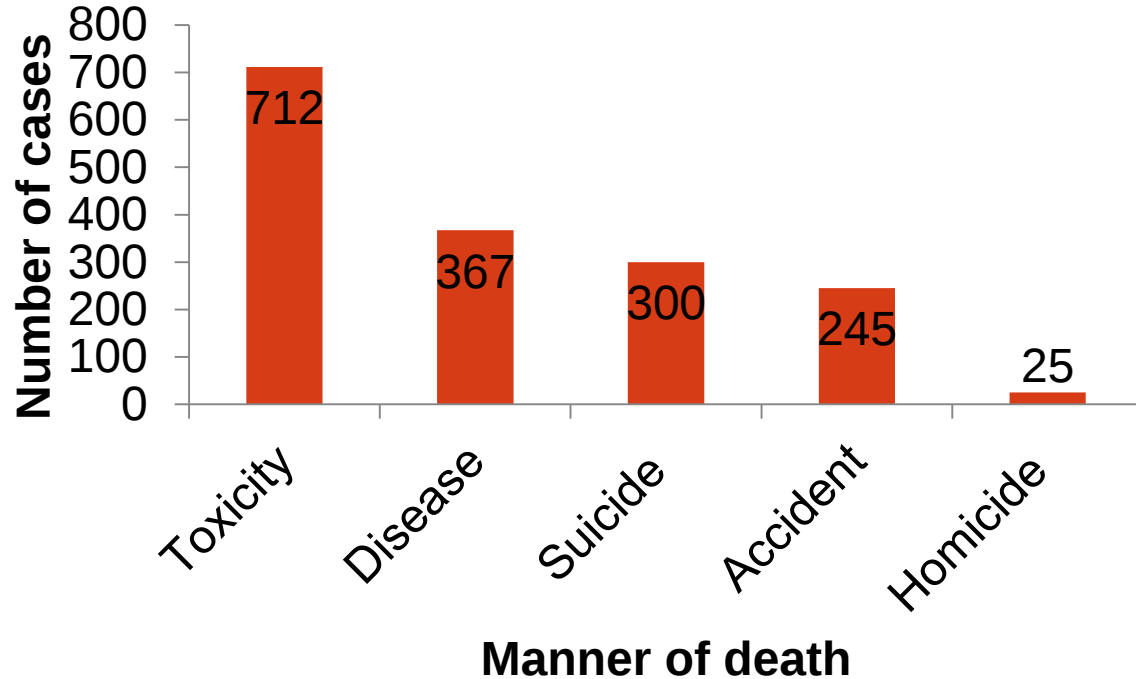
Demographics & circumstances

	N=1649
Age	36.9 yrs
Years Potential Life Lost	43.9 yrs
Male	78%
Employed	34%
In Rx	8%
History IDU	56%
<i>Location</i>	
Metropolitan	59%
Rural & regional	41%

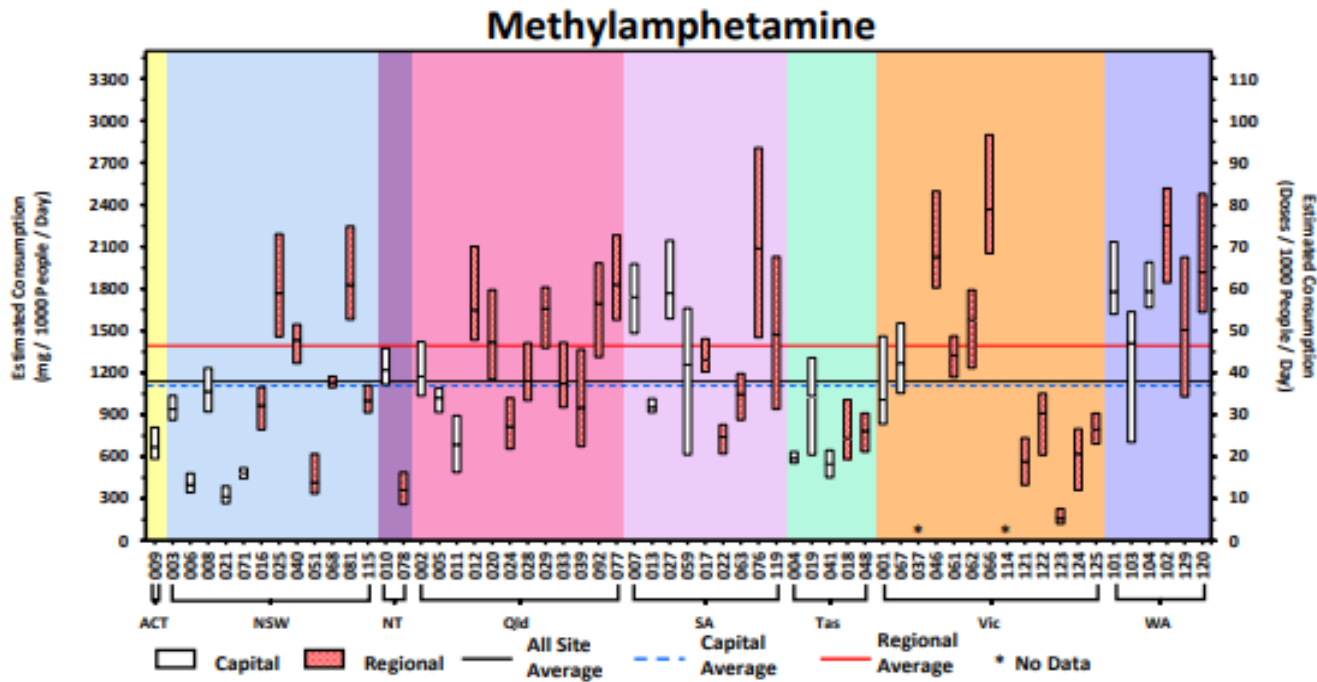
Toxicology: Methamphetamine concentrations, 2009-2015



Manner of Death



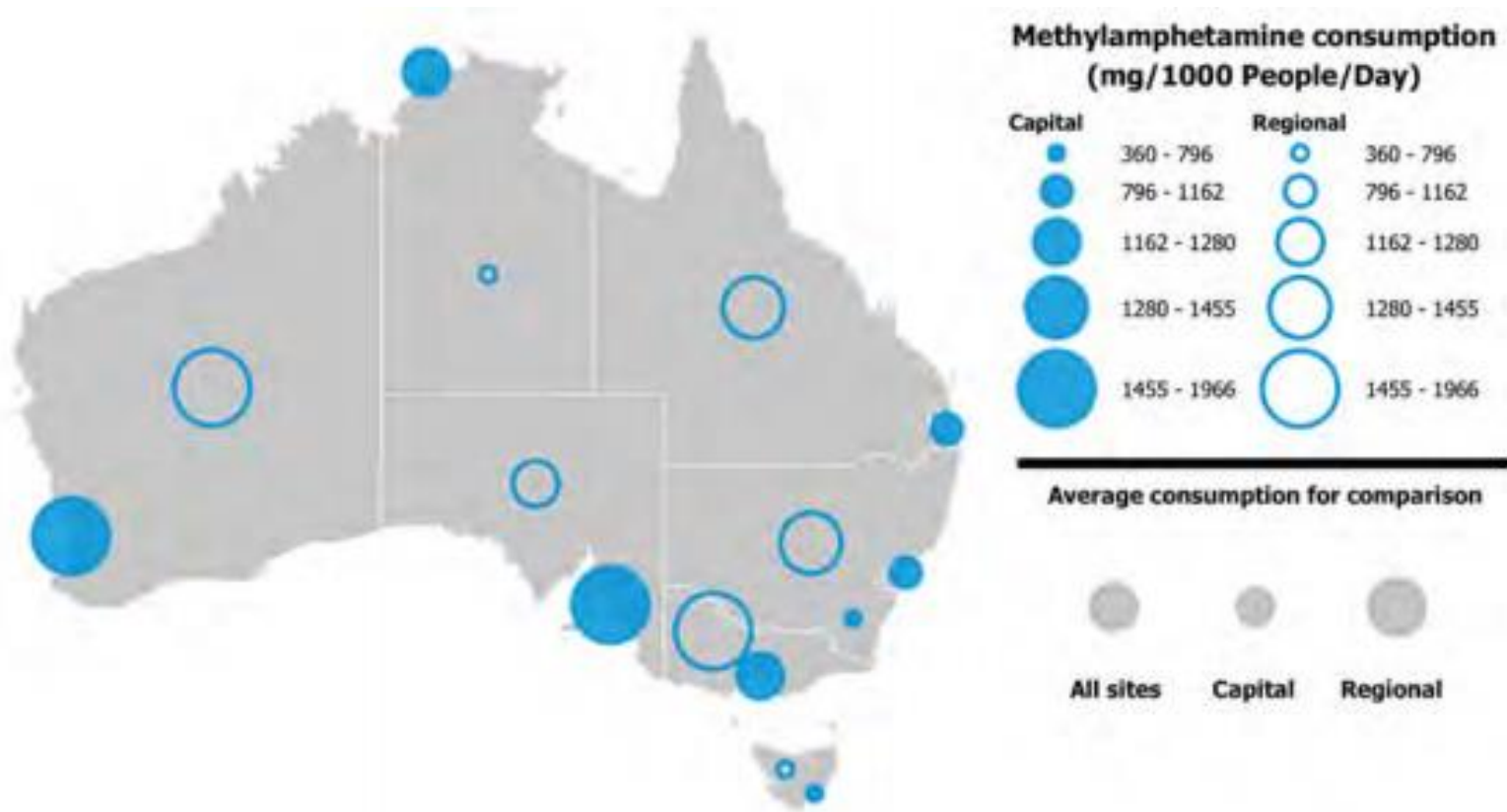
Estimated methylamphetamine consumption for August 2018 in mass consumed per day (left axis) and doses per day (right axis) per thousand people



- Regional averages higher than capital cities
- Variable across sites

- Highest capital city consumption in South Australia and Western Australia

Estimated methylamphetamine consumption per jurisdiction for August 2018 in mg consumption per day per thousand people



Acknowledgements – and thank you

Thanks to our participants in the studies mentioned here