

# Emerging trends in drug use, harms, and markets: Findings from Drug Trends 2019

National Drug and Alcohol Research Centre Symposium, Wednesday 16<sup>th</sup> October, Sydney Dr Amy Peacock, National Drug and Alcohol Research Centre, UNSW, Sydney

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### **Drug Trends Team:**

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- Burnet Institute: Amy Kirwan, Cristal Hall, Campbell Aitken and Paul Dietze
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- IDRS and EDRS participants
- UNSW Community Reference Panel
- Drug Trends Advisory Committee
- Data custodians and stakeholders
- Collaborators on 2019 modules: Monica Barratt, Caitlin Hughes, Rachel Sutherland, Nadine Ezard, Robert Page, Penny Hill, Mark Stoove, Ashleigh Stewart, Leigh Coney, Michala Kowalski, Sam Colledge, Sonja Memedovic, Shane Darke





















To establish, maintain, and continuously improve monitoring of trends in illicit drug use, harms, and markets across Australia

# National Monitoring: Secondary Data

# Jurisdictional Monitoring: Secondary Data

# Sentinel Sample Monitoring

## **Online Monitoring**

### **Mortality Data**

Drug-induced deaths from registry and coronial data

# Hospitalisation Data

Drug-induced hospitalisations

### **Other Sources**

Household survey, treatment data etc

Various sources
assessing drug use and
harms at the populationlevel (e.g., emergency
department
presentations) and
subpopulation level (e.g.,
needle-syringe program
visits)

Illicit Drug
Reporting System
(IDRS)
Ecstasy and
Related Drug
Reporting System
(EDRS)

Annual interviews with people who inject drugs (IDRS) and who use stimulants (EDRS)

## Cryptomarket Data

Scraping listings on darknet drug markets

Input from researchers, national stakeholders, and jurisdiction stakeholders to inform priority research questions

Analytical reports

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# IDRS and EDRS interview samples, 2019

	IDRS (N=902)	EDRS (N=797)
Eligibility criteria:	<ul> <li>People who regularly inject illicit drugs residing in capital cities</li> </ul>	<ul> <li>People who regularly use ecstasy or other stimulants residing in capital cities</li> </ul>
Interviewed:	May-July 2019	April-July 2019
	<ul> <li>Mostly male (68%) and middle- aged (median 43 years)</li> </ul>	<ul> <li>Mostly male (60%) and young (median 22 years old)</li> </ul>
	Majority unemployed (88%)	<ul> <li>Majority studying (45%) and/or employed (73%)</li> </ul>
Demographics:	<ul> <li>Homelessness/unstable housing high (9%)</li> </ul>	<ul> <li>Few homeless or in unstable housing (1%)</li> </ul>
	<ul> <li>History of incarceration high (62%)</li> </ul>	<ul> <li>History of incarceration lower (5%)</li> </ul>
	<ul> <li>Two in five (41%) currently in drug treatment</li> </ul>	• Few in drug treatment (6%)

## **Key Caveats**

Findings do not represent drug use in the general population, nor trends in regional/remote areas

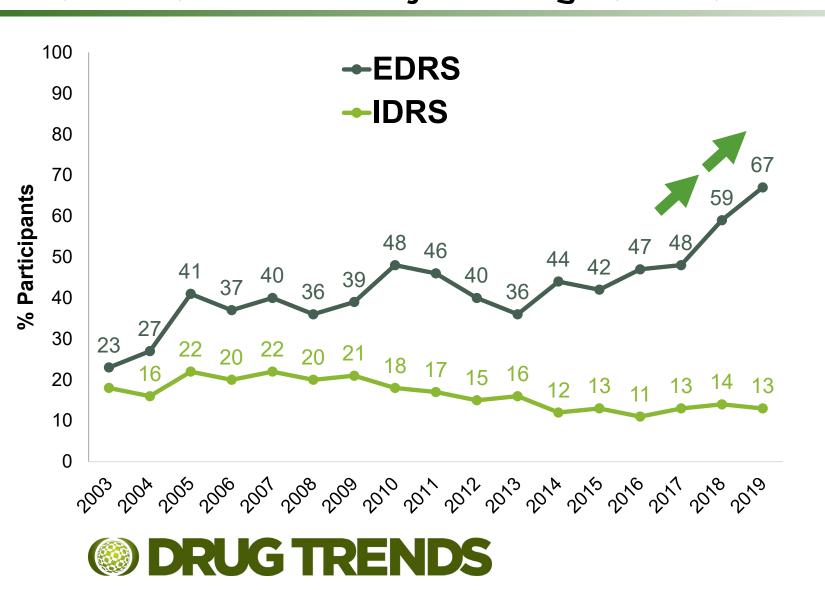
People report what they think the substance was (no objective data on actual contents)

Need to be interpreted in context of other data sources

**TOP 10 'DRUG** TRENDS' OF 2019



# Past six month cocaine use in the sample who use ecstasy (EDRS) and who inject drugs (IDRS)



7%

of cocaine consumers in EDRS reported weekly or more frequent use (7% in 2018)

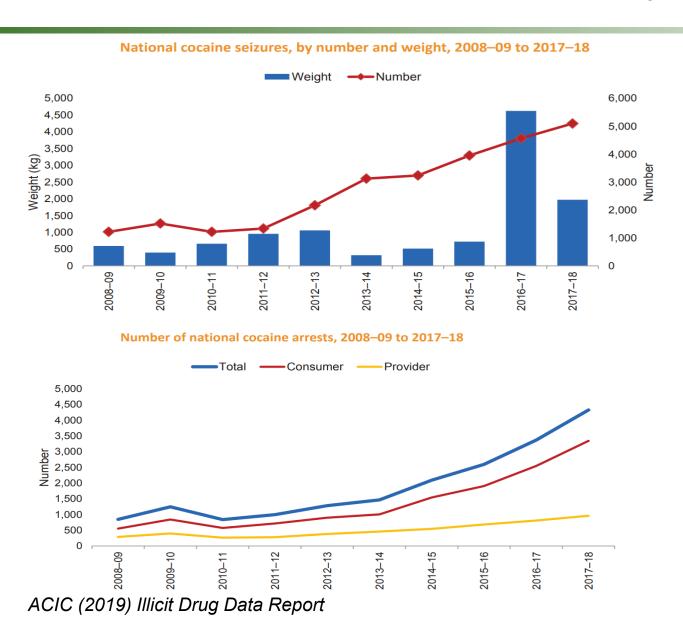
\$300

Median price per gram of cocaine since 2006

70%

of cocaine consumers in EDRS said cocaine was 'easy' or 'very easy' to obtain (62% in 2018)

## Other indicators of cocaine use, markets and harms



## 1.7%

Of drug-related hospital separations in 2017/18 – a small but increasing trend from 2010-11 (Drug Trends, 2019)

## 1.3%

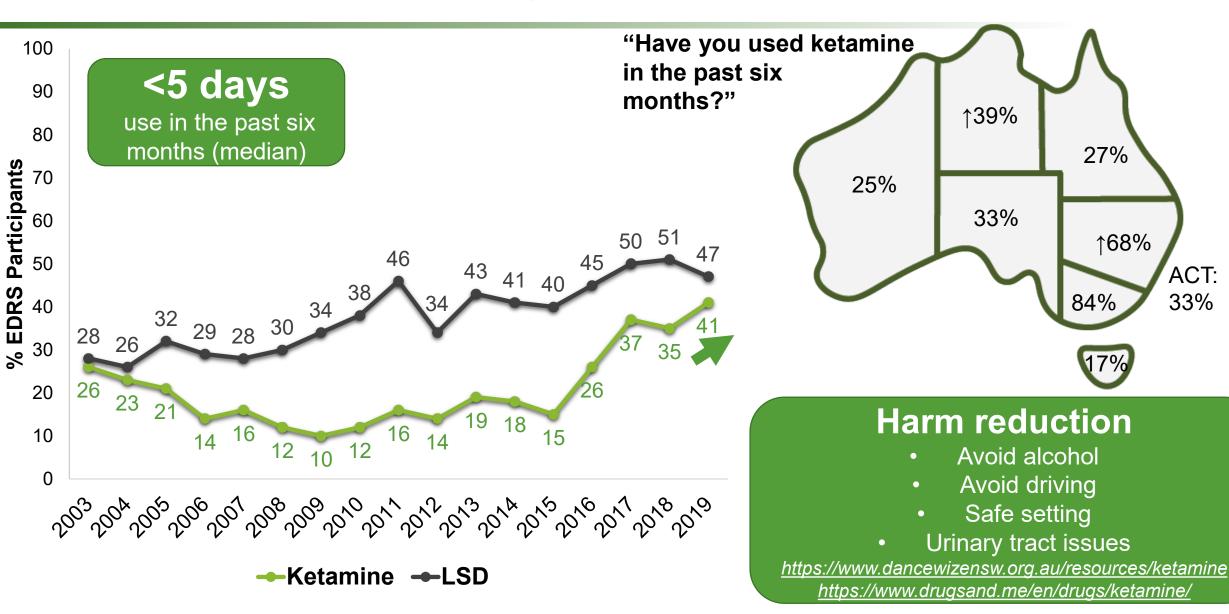
Of closed drug treatment episodes in 2017/18 where cocaine/MDMA was cited as principal drug of concern (AIHW, 2019)

## 41

drug-induced deaths involved cocaine in 2017 (Chrzanowska et al., 2019)

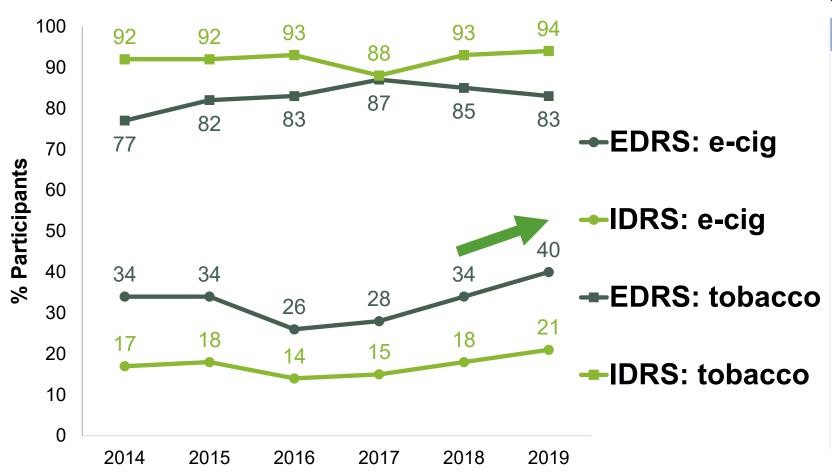


# Past six month hallucinogen use in the sample who use ecstasy





# Past six month e-cigarette use in the sample who use ecstasy (EDRS) and who inject drugs (IDRS)



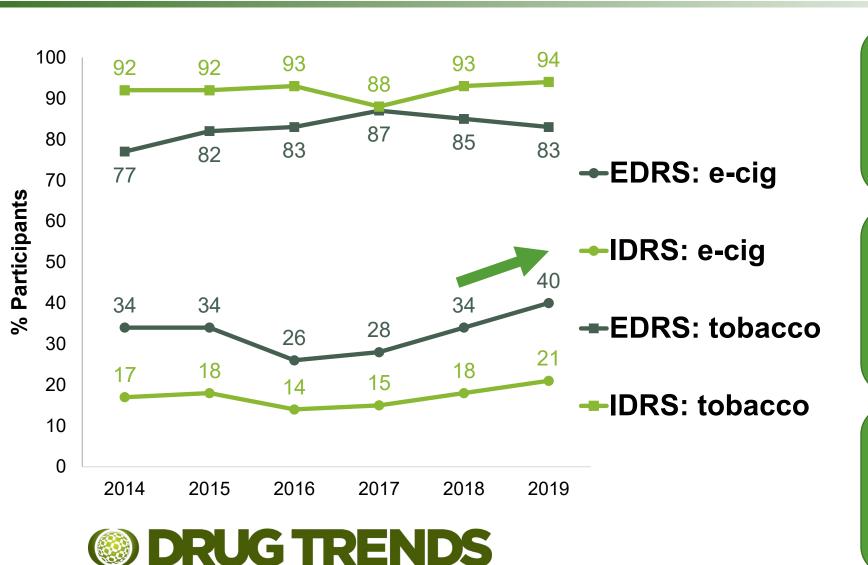
Updated October 11, 2019 at 1:00 PM ET

### What we know

- As of October 8, 2019, 1,299\* lung injury cases associated with the use of
  e-cigarette, or vaping, products have been reported to CDC from 49
  states, the District of Columbia, and 1 U.S. territory.
- Twenty-six deaths have been confirmed in 21 states.
- All patients have reported a history of using e-cigarette, or vaping, products.
- Most patients report a history of using tetrahydrocannabinol (THC)containing products. The latest national and state findings suggest
  products containing THC, particularly those obtained off the street or
  from other informal sources (e.g. friends, family members, illicit dealers),
  are linked to most of the cases and play a major role in the outbreak.
- Therefore, CDC recommends that you should not use e-cigarette, or vaping, products that contain THC.
- Exclusive use of nicotine containing products has been reported by some
  patients with lung injury cases, and many patients with lung injury report
  combined use of THC- and nicotine-containing products. Therefore, the
  possibility that nicotine-containing products play a role in this outbreak
  cannot be excluded.
- At present, CDC continues to recommend that people consider refraining from using e-cigarette, or vaping, products that contain nicotine.



# Past six month e-cigarette use in the sample who use ecstasy (EDRS) and who inject drugs (IDRS)



## Median 10 days

of e-cigarette use in the past six months in the EDRS sample (5 days 2018, 167 days tobacco)

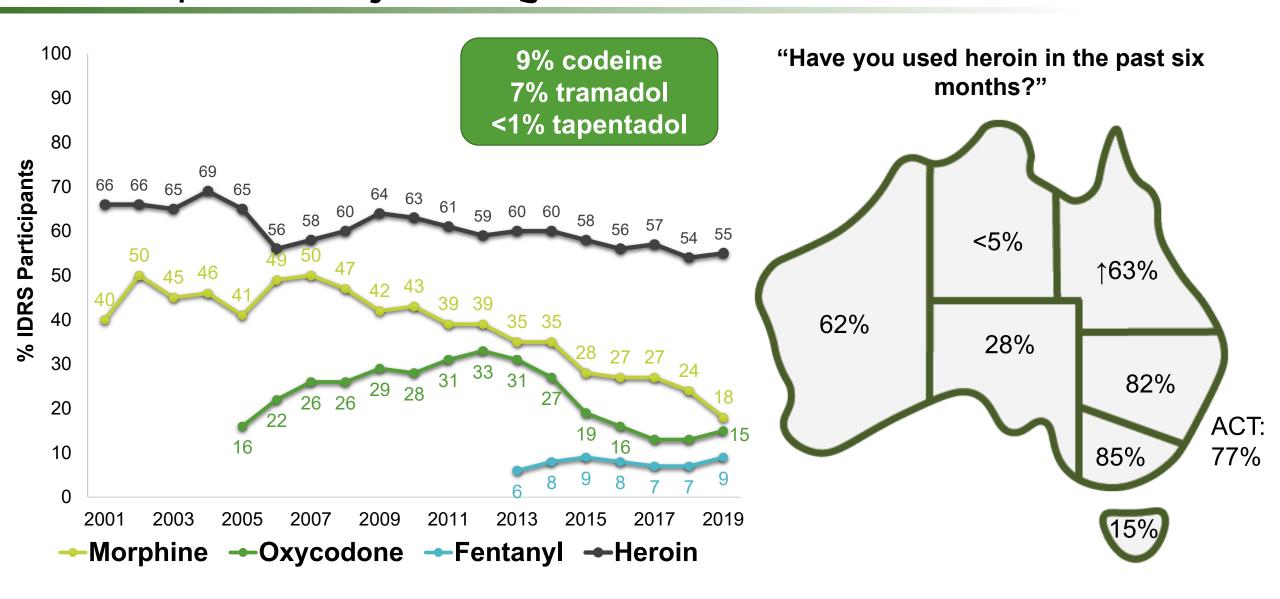
### **EDRS**:

16% nicotine and cannabis69% nicotine3% cannabis11% neither

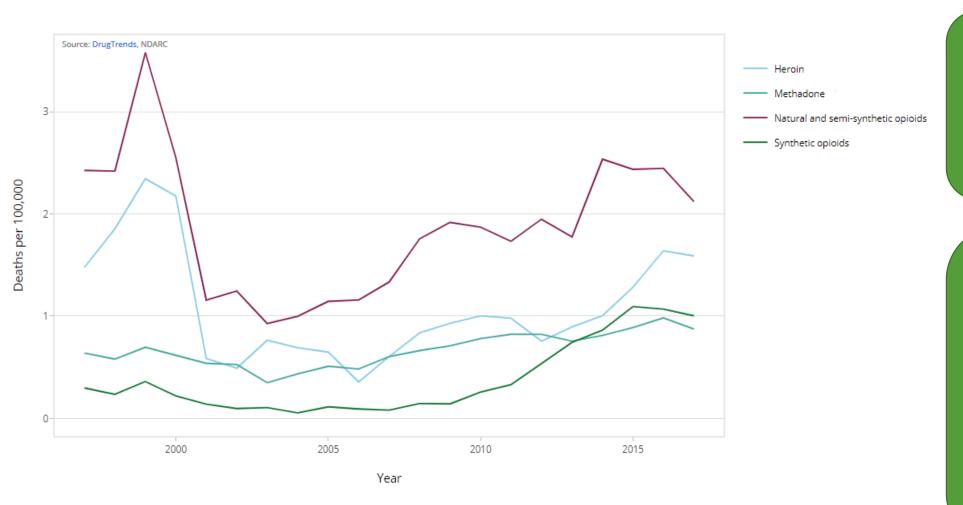
IDRS sample who use ecigarettes more likely to report use as a smoking cessation tool than EDRS sample (Sutherland et al., 2016)



# Past six month use of illicit/non-prescribed opioids in the sample who inject drugs (IDRS)



## Opioid-induced deaths in Australia, 1997-2017



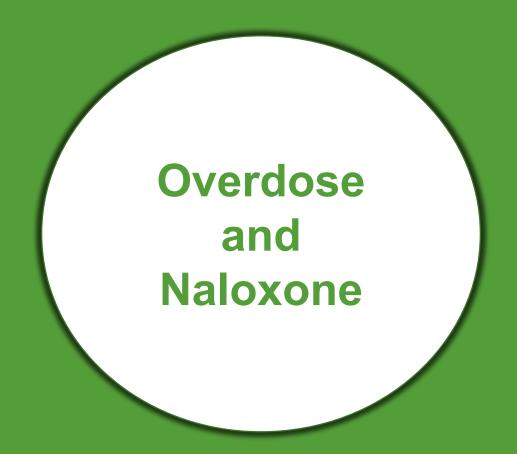
2018 findings to be released November 2019

Drugs deemed contributory in opioid-induced deaths in 2017 (n=1153):

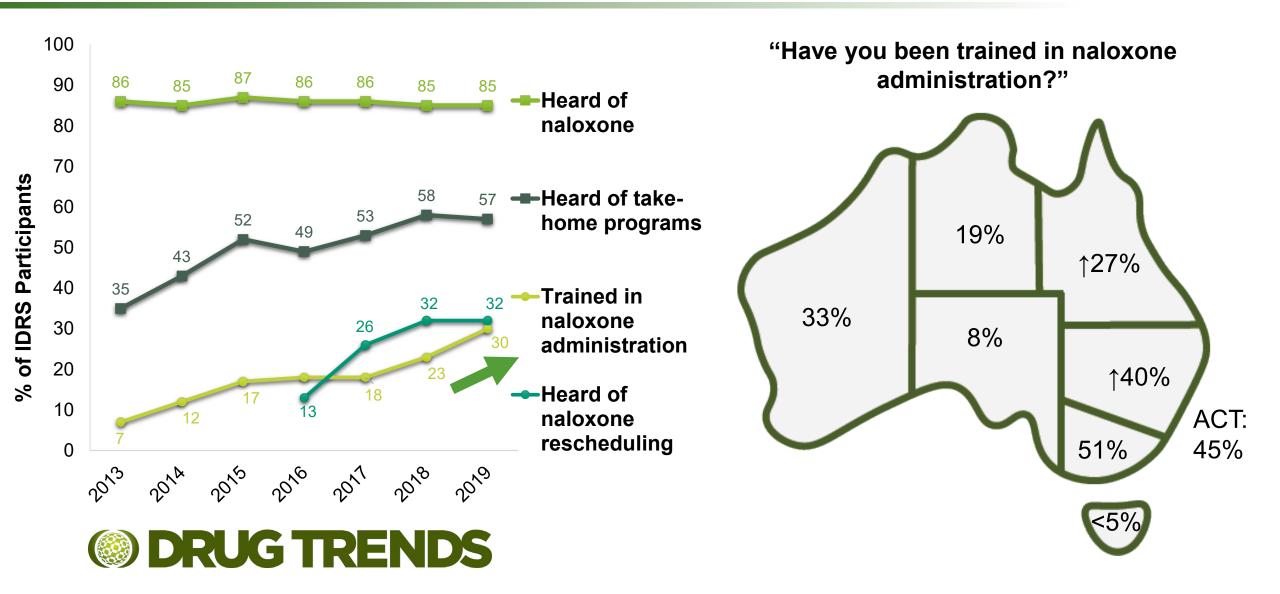
- 56% benzodiazepines
- 32% antidepressants
- 19% antipsychotics
- 16% alcohol
- 7% pregabalin



Chrzanowska et al. (2019)



# Naloxone knowledge and training in the sample who inject drugs (IDRS)



## Overdose and naloxone use in the sample who inject drugs (IDRS)



## 3 in 20 participants

reported an opioid overdose in the past year (15%)



## 1 in 20 participants

had been resuscitated with naloxone by somebody trained through the take-home naloxone program (4%)



## 9 in 20 participants

who had completed the take-home naloxone program had used naloxone to resuscitate someone (47%)





# Service engagement in the sample who use ecstasy (EDRS) and who inject drugs (IDRS)

### Sample who inject drugs

41% Currently in drug treatment

31%

Had seen a mental health professional in the past 12 months

47% of the total sample reported a mental health problem

46%

Had a sexual health check in the past 12 months

19% of those who had penetrative sex reported penetrative sex without a barrier where they did not know the HIV/STI status of their partner

Sample who use ecstasy

6% **Currently in drug treatment** 

33%

Had seen a mental health professional in the past 12 months

57% of the total sample reported a mental health problem

57%

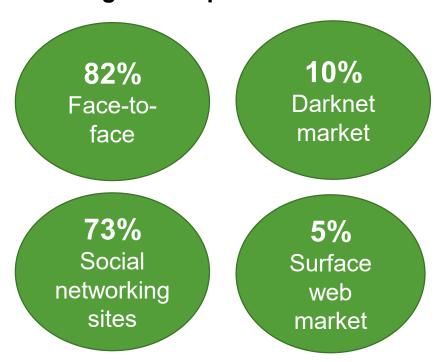
Had a sexual health check in the past 12 months

35% of those who had penetrative sex reported sex without a barrier where they did not know the HIV/STI status of their partner

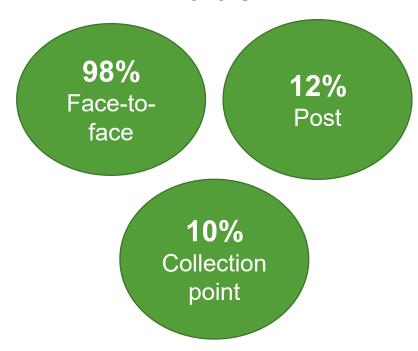


## Modes of purchasing in the sample who use ecstasy (EDRS)

"In what ways did you arrange the purchase of illicit or non-prescribed drugs in the past 12 months?"



"How have you received illicit or non-prescribed drugs in the past 12 months?"

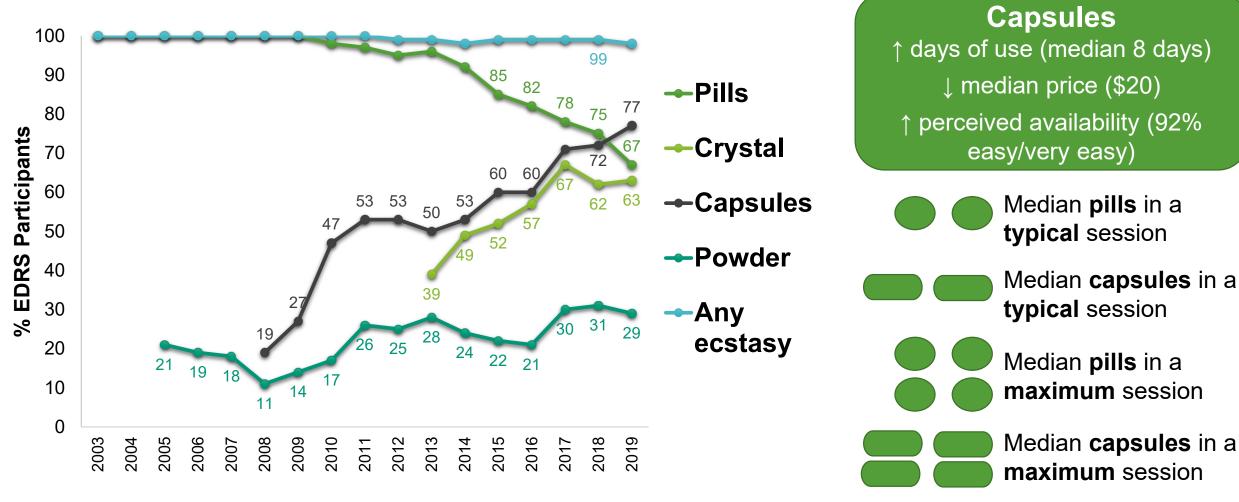


"In the last 12 months, did you purchase drugs on the surface or darknet that you then supplied to others?"





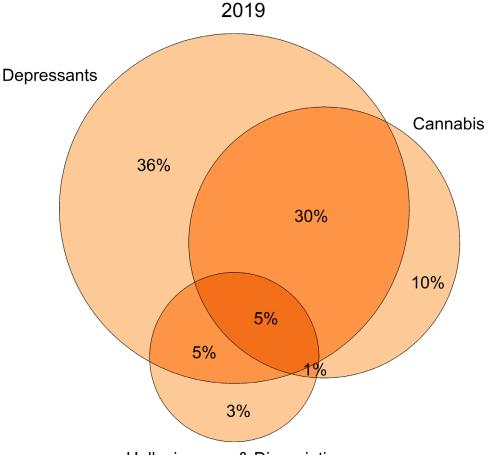
# Ecstasy use in the past six months





# Polysubstance use and other behaviours in the sample who use ecstasy (EDRS)

"What other drugs did you use on your last occasion of stimulant use?"



Hallucinogens & Dissociatives

## **ODRUG TRENDS**

## 87%

used various strategies to minimise harms last time they used ecstasy or related drugs

# Last time they used ecstasy or a related drug:

- 26% searched the drug online
- 27% searched online for info about drug interactions
- 22% used vitamin supplements
- 61% obtained information from others who had used the same batch
- 17% used a test dose
- 61% spread out doses



## Music festivals and drug use in the sample who use ecstasy



## 7 in 10 EDRS participants

had attended an Australian music festival in the last year (68%)

93%

Had used an illicit drug at their last music festival (83% alcohol)

5%

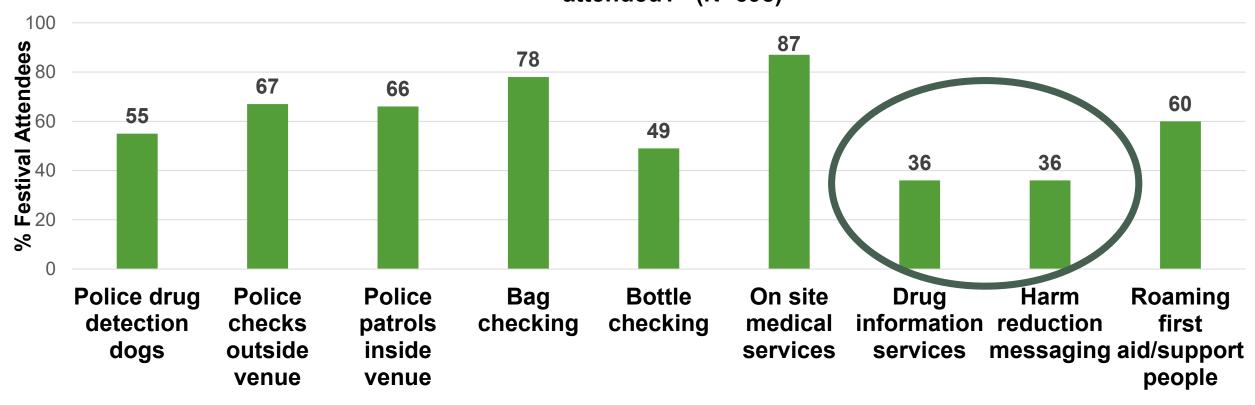
Thought they needed medical help following illicit drug use last time 2%

Sought medical help



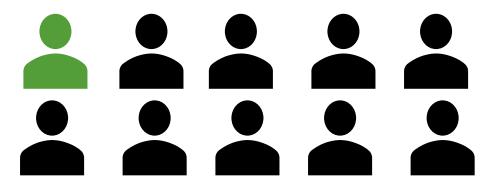
# Awareness of health and policing initiatives at festivals in the sample who use ecstasy

"To the best of your knowledge, were the following in place at the last festival you attended?" (N=598)





Drug checking in the sample who use ecstasy (EDRS) and who inject drugs (IDRS)

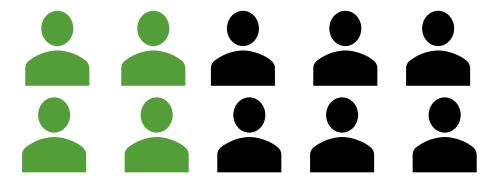


## 1 in 10 IDRS participants

had ever tested their drugs (11%; 6% in the past year)

71%

Personal testing kit last time



## 4 in 10 EDRS participants

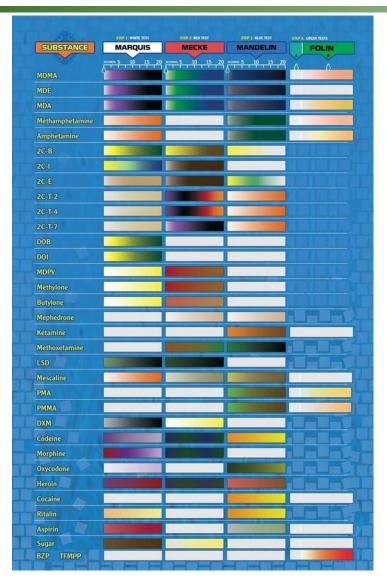
had ever tested their drugs (45%; 36% in the past year)



Personal testing kit last time



# Drug checking in the sample who use ecstasy (EDRS)



	Expected but did not detect MDMA (n=13)*	Expected and detected MDMA (n=134)
Used the tested drug	46% (6)	95% (127)
Did not use the tested drug	31% (4)	3% (4)
Reported results to peers/forums	54% (7)	31% (42)
Still have the drug and plan to use in future	15% (2)	8% (11)

## To consider:

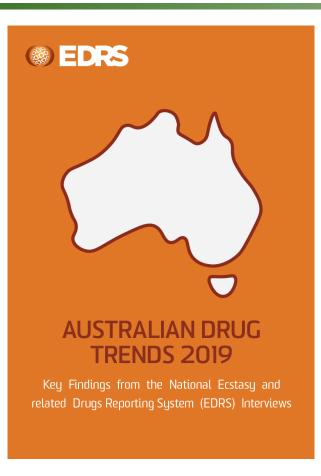
- Qualitative information = people want information
  - Low cost
  - Low tech expertise
  - Can legally purchase

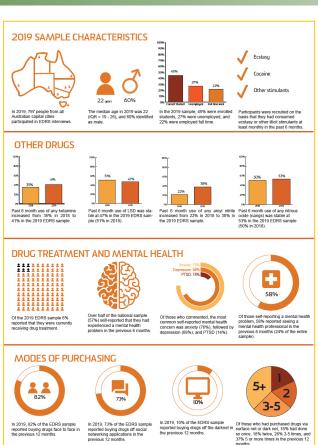
## **However:**

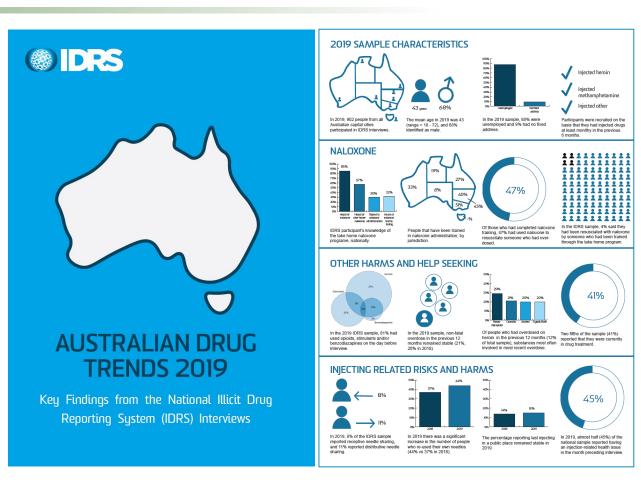
- Detecting adulterants / dose
- Subjective interpretation
- Harm reduction advice from drug checking services

Note. Participants could endorse multiple responses. \*small number

# New reports









## New bulletins



### Drug checking ('pill testing') and behavioural responses among a sample of Australians who regularly use drugs

Amv Peacock. Daisy Gibbs, Monica Barratt, Raimondo Bruno, Rachel Sutherland, Robert Page, Julia Uporova, Caroline Salom, Penny Hill, Paul Dietze, Simon Lenton, Louisa Degenhardt & Nadine Ezard

People who use illicit drugs engage in harm reduction strategies based on perceived substance contents[1]. With the exception of a drug checking service at a Canberra music festival[2], personal testing kits (e.g., reagent tests) comprise the only local option for Australians who use illicit drugs to obtain objective information about these substances. Data collected in 2005 from people who used ecstasy showed that 22% had used testing kits on substances acquired as ecstasy(1). There has been no recent update of these data nor study of drug checking among Australians who inject drugs.

For the Ecstasy and Related Drugs Reporting System (EDRS) and the Illicit Drug Reporting System (IDRS), interviews were conducted with people who regularly use ecstasy and other illicit stimulants (EDRS; N=797) and people who regularly inject drugs (IDRS; N=902) recruited from Australian capital cities in April-July and May-July 2019, respectively. There were 792 EDRS participants and 883 IDRS participants who responded to items on drug checking, showing:

- More than four in ten EDRS participants (45%) and one in ten IDRS participants (11%) had ever tested their drugs.
- One in three EDRS participants (36%) and one in twenty IDRS participants (6%) had tested their drugs in the last year.
- Most EDRS and IDRS participants who had tested their drugs in the last year had used a personal testing kit last time.

Drug checking experience among people who regularly use illicit drugs	EDRS % (n)	IDRS % (n)
Experience of drug checking in the total sample:	N=792	N=883
No	55% (435)	89% (784)
Yes, but not in the past year	9% (73)	6% (50)
Yes, in the past year	36% (284)	6% (49)
Type of test used last time among those who had tested drugs in the past year:	N=284	N=49
Personal testing kit or strip (e.g., colorimetric/reagent test or immunoassay strip)	87% (248)	71% (35)
Face-to-face testing service (e.g., festival pill-testing service)	4% (11)	4% (2)
Postal/online testing service	1% (3)	2% (1)
Other/Don't know/Refused to answer	8% (22)	22% (11)

- Of EDRS participants who had last used a personal testing kit (n=248), most (84%, n=208) had tested a substance they had purchased as 'ecstasy/ MDMA'.
- We asked 153 of these people who had last used a personal testing kit for 'ecstasy/ MDMA' whether the result indicated MDMA: 88% (n=134) said MDMA was detected, 8% (n=13) said no MDMA was detected, and 4% (n=6) said 'don't know'.

EDRS participants who tested ecstasy/MDMA with a personal testing kit and asked about what they did	Not detected^	Detected			
in response:	% (n)	% (n)			
	N=13	N=134			
Used the tested drug	46% (6)	95% (127)			
Did not use the tested drug	31% (4)	3% (4)			
Reported results of tested drugs to peers/friends or on forums	54% (7)	31% (42)			
Still have the drug and plan to use in the future	15% (2)	8% (11)			
Note: Participants could endorse multiple responses (but could not endorse both 'used the tested drug' and 'did not use tested drug'). "Small numbers: treat with caution.					

Nearly half of the sample who regularly used ecstasy and other illicit stimulants had tested their illicit drugs; fewer people who injected drugs reported this behaviour. Most people who had used a personal testing kit on a substance acquired as 'ecstasy/MDMA' identified MDMA and then used the substance. This finding reinforces previous research showing that people who use illicit drugs want information about the contents of their substance<sup>[1,3]</sup> However, these tests typically only identify the presence or absence of a drug: they do not identify all substances within the tested drug, nor the dose. This information is critical to inform behaviours to reduce harms from, for example, high-dose MDMA or from adulterants. Behaviour may differ with more sophisticated testing, and with parallel provision of harm reduction information (as provided with most drug checking services)<sup>[5]</sup>.

- 1. Johnston J., et al. (2006). A survey of regular estatsy users' incodeding and practices around determining pill content and purity. Int. J. Drug Policy, 17, 464-472.
  2. Vurbasca, G. et al. (2016). Report on the "Dev All CT GTM Bill Testing Pick It. In Hemi Recultion Justinals.
  3. Barratt, M.J., et al. (2016). Pill testing or drug chesting in Australia: Acceptability of service design features. Drug Actival Review, 228-238.
  4. Harper, L., et al. (2017). An overview of foresist drug testing methods and their suitability for harm recultion print-d-rare services. Harm Reduction Justinal, 14, 53.

- 5. Barratt, M.J et al. (2018). Global review of drug checking services operating in 2017. DPMP Bulletin No. 24. Sydney: NDARC, UNSW Sydney.

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### Crystal methamphetamine use, routes of administration and use of commercial ball pipes among people who inject drugs in Australia

Antonia Karlsson, Nadine Ezard, Caroline Salom, Paul Dietze, Simon Lenton, Raimondo Bruno, Louisa Degenhardt & Amy Peacock

### The issue

- · Increases in crystal methamphetamine use have been associated with a rise in methamphetamine-related harms when taken by injecting or smoking[1]
- . It is an offence in most parts of Australia to possess any implement for using methamphetamine (e.g., a pipe) other than a needle and syringe[2].
- Research has revealed that smoking is an increasingly favoured route of administration<sup>[9]</sup>, but information about smoking practices and equipment use is lacking.
- The use of homemade pipes can result in various harms including cuts, burns, blisters and open sores inside the mouth of those who smoke crystal methamphetamine[4].

### What nur work found

We conducted interviews with people who regularly inject drugs (IDRS; N=902) recruited from Australian capital cities in May-July 2019 for the Illicit Drug Reporting System (IDRS)

- . Three in four participants (76%) had used crystal methamphetamine in the past 6 months.
- . Over one-quarter (29%) had smoked crystal methamphetamine in the past 6 months.
- . Most IDRS participants who had smoked crystal methamphetamine had used a ball pipe (90%)
- . One in five (19%) participants who smoked crystal methamphetamine had difficulties obtaining a commercial ball pipe in the past 6 months.
- · Three in five (63%) of those who had difficulties accessing a pipe had injected instead, and more than two in five (44%) had used a homemade pipe (e.g., foil, lightbulb).



### Implications

- . Difficulties accessing commercial ball pipes lead to greater frequency of injection and use of homemade pipes among
- Legislative changes banning commercial ball pipes also create a barrier to provision of safer smoking equipment and for health education for those who smoke crystal methamphetamine.
- Safe smoking kits have been used in other countries as a way of engaging this population<sup>[4]</sup>, and may be a way of facilitating safer smoking and greater health service engagement in Australia

1 McKetin, R. et al. (2008). Characteristics and harms associated with injecting versus smoking methamphetamine among methamphetamine entrants

2 Hughes, C. (2014). Drugs and the law: What you need to know. Sydney: National Drug and Alcohol Research Centre: UNSW.

3. Australian Institute of Health and Welfare. (2017). National Drug Strategy Household Survey 2016: Detailed findings. Canberra: AIHW.

4. Strike, C., & Watson, T.M. (2017). Education and equipment for people who smoke crack occarie in Canada. Harm Reduction Journal, 14, 17.

administration and use of commercial ball pipes among people who inject drugs in Australia. Drug Trends Bulletin Series, Sydney: National Drug and Alcohol Research Centre















Illicit drug use and awareness of health and policing initiatives at Australian music

among people who regularly use ecstasy and other illicit stimulants

Daisy Gibbs, Caitlin Hughes, Monica Barratt, Nadine Ezard, Raimondo Bruno, Rachel Sutherland, Jodie Grigg, Caroline Salom. Pennv Hill, Paul Dietze, Simon Lenton, Louisa Degenhardt & Amy Peacock

There is significant concern about patron safety at music festivals, and particularly related to illicit drug use and associated harms(1). People who attend music festivals are more likely to report illicit drug use than the general population, and festivals may be higher risk environments for experience of drug-related harms[2]. Various strategies have been implemented with the aim of maximising patron safety, including increased policing and health efforts[2], however there has been limited research exploring natron awareness of these initiatives

### What our work found

As part of the Ecstasy and Related Drugs Reporting System (EDRS), we interviewed 796 people who regularly use ecstasy and other illicit stimulants recruited from capital cities in April-July 2019 about their experiences at Australian music festivals.

- Seven in ten (68% n=538) of EDRS participants had attended an Australian music festival in the last year
- Nearly all (97%, n=524) of those who had attended a festival had used any alcohol or drugs, and most (93%, n=498) had used illicit drugs (e.g., MDMA, cocaine, cannabis).
- Of the 498 people who had used illicit drugs at their last festival, one in twenty (5%, n=24) thought they needed medical help following their illicit use drug use, and 2% (n=10) sought medical help.

EDRS sample who attended a festival in the past year: "What substances did you use at the last festival?"	National (N=538)	NSW (N-82)	ACT (N=77)	VIC (N=69)	TAS (N=56)	SA (N=52)	WA (N=71)	NT (N=72)	QLD (N=59)
Any alcohol and/or other drug %	97	99	94	99	98	92	100	100	97
Any alcohol %	83	82	82	77	96	75	82	92	81
Any illicit drug %	93	90	88	97	91	85	97	99	91
Ecstasy/MDMA %	83	78	84	84	80	77	94	83	83
Cannabis %	41	34	36	45	63	23	34	40	58
Ketamine %	21	39	12	59	-	-	-	17	20
LSD %	21	27	14	35	23	14	16	15	24
Cocaine %	20	17	16	38	18	21	13	15	27

Note - small number suppressed. Use may have occurred immediately prior to or during the festival. Findings reported by jurisdiction of residence

- Of those who attended a festival most were aware of on-site medical services at their last festival (87% n=468)
- Most were aware of bag checking (78%, n=419) and police patrols inside (66% n=356) and outside (67%, n=359) venues.

One-third were aware of drug information services (36%, n=193) and harm reduction messaging (36%, n=192).

Most EDRS participants who had attended a festival were aware of on-site medical services and of policing/security strategies like bag checking and patrolling police. A smaller proportion were aware of drug information and harm reduction services at festivals. Music festivals represent a unique setting to engage with people who may not otherwise come into contact with services offering harm reduction information and other health education. There is an opportunity to increase access to, and awareness of, these services at festivals.





# Other findings

## **Breakout session: Drug Trends and Emerging Drugs of Concern**

- Rachel Sutherland: Pregabalin use among people who inject drugs
- Daisy Gibbs: Illicit drug use in prisons by people who inject drugs
- Anant Mathur: Recent trends in illicit drugs available on darknet marketplaces

## **Posters:**

- Daisy Gibbs: HCV cascade of care among people who inject drugs
- Toni Karlsson: Crystal methamphetamine and use of commercial ball pipes
- Julia Uporova: Driving after using alcohol and drugs and roadside testing
- Agata Chrzanowska: Trends in drug-related hospitalisations in Australia, 1999-2018
- Jared Brown: Alkyl nitrites a rush on poppers



## For further information

### Contact us

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### Website

https://ndarc.med.unsw.edu.au/program/ drug-trends

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