

## Australian music festival attendees: A national overview of demographics, drug use patterns, policing experiences and help-seeking behaviour

Caitlin Hughes<sup>a,b</sup>, Monica Barratt<sup>a,c</sup>, Jason Ferris<sup>d</sup>, Adam Winstock<sup>e,f</sup>

<sup>a</sup> National Drug and Alcohol Research Centre, UNSW, Australia.

<sup>b</sup> Centre for Crime Policy and Research, Flinders University, Adelaide, Australia.

<sup>c</sup> Social and Global Studies Centre, RMIT University, Melbourne, Australia.

<sup>d</sup> Centre for Health Services Research, University of Queensland, Brisbane, Australia.

<sup>e</sup> University College London, London, UK.

<sup>f</sup> Global Drug Survey Ltd, London, UK.

### Context

The last 12 months has seen ongoing debate and policy activity across Australia about music festival safety, particularly in relation to drug use and drug-related harm. For example, the Australian Capital Territory has conducted its second pill testing trial at an Australian music festival, while New South Wales (NSW) established an Expert Panel on Music Festival Safety that led to a new offence for “drug supply leading to death”; expanded medical service provision on-site at festivals; increased funding for peer educators e.g. DanceWize NSW; and introduced an infringement notice to enable people detected in possession of drugs other than cannabis to pay an on-the-spot fine instead of being arrested and sent to court (NSW Government, 2018). Yet, there remain ongoing gaps in knowledge about the profiles and patterns of drug use and drug-related harms amongst festival attendees in Australia.

The existing research indicates that Australian festival attendees can be at risk of drug-related harms. For example, Lim et al. (2010) analysed the profiles of Melbourne Big Day Out participants over a four-year period and found that participants were more likely to have used illicit drugs than the general Australian population and that drug use was more common among men, older participants and those engaging in high-risk sexual behaviour. Hughes et al. (2017) used a national survey to show that drug law enforcement has a minimal deterrent effect on drug use and supply at Australian music festivals, but that specific modes of policing can lead to more harmful practices such as increasing drug purchasing within festival grounds. Grigg, Barratt & Lenton (2018a, 2018b) showed high rates (48%) of ‘double dropping’, that is, taking two tablets of Ecstasy/MDMA at once at Western Australian and Victorian festival settings, and how police deployment of drug detection dogs at festivals can increase internal concealment of drugs or hasty drug consumption on site of dogs. Additionally, in-depth interviews with Australian festival attendees revealed the negative social and emotional impacts of being screened by drug detection dogs (Malins, 2019).

The Global Drug Survey (GDS) has explored cross-national patterns of drug use and drug-related harms for the last 8 years (Barratt et al., 2017). GDS first included a question measuring festival attendance at the end of 2018 and led to capture of the largest sample of Australian festival attendees yet analysed. Herein we capitalise on this to provide insight into the national profiles of Australian festival attendees.

## Objectives

This bulletin provides an overview of the demographic profiles, patterns of festival attendance and drug use, policing experiences and help-seeking behaviours of 5,155 Australian music festival attendees surveyed in late 2018. Specifically, it outlines:

1. Demographics (age, sex, residence, education, employment, criminal history)
2. Frequency and nature of festival attendance within and outside Australia
3. Frequency of illicit drug use and typical quantities consumed
4. Likelihood and nature of police encounters
5. Emergency Medical Treatment (EMT) seeking and level of interest in reducing drug use

For other information on EMT seeking by Australian festival attendees using the same dataset, including rates of EMT seeking by age and gender, circumstances surrounding EMT seeking and nature of events (including symptoms and hospitalisation) see Barratt et al. (2019).

## The data source: 2019 Global Drug Survey

The data for this analysis were drawn from the 2019 Global Drug Survey. The Global Drug Survey (GDS) is the world's largest anonymous, annual web survey of psychoactive substance use: and has now been running for 8 years (see Barratt et al., 2017 for an overview). The survey is widely promoted through global news and media partner websites, social media networks such as Facebook and Twitter, and harm reduction agencies. All participants are self-selected, and all data are self-reported, hence, the results are not representative of the wider population of people who use drugs. But the survey provides a mechanism to recruit large numbers of otherwise hard-to-reach groups across multiple countries (Barratt et al., 2017).

The Global Drug Survey 2019 (GDS2019) ran from November to December 2018 and was open to anyone aged 16 and over who consented to participate. The survey included core modules on patterns of use of alcohol, tobacco, illicit drugs, pharmaceuticals, and new psychoactive substances as well as a new module on festival attendance.<sup>1</sup>

A total of 7,864 Australians participated in GDS2019. Of these 5,155 reported attending festivals in the last 12 months. The rest of the data reported in this bulletin pertains to this sample (n=5,155). Of those who reported their state/territory of residence (N=3,218), 38% reported NSW, 28% Vic, 14% Qld, 11% WA, 5% SA, 3% ACT, 2% Tas and 1% NT. Compared to the distribution of estimated residential population for 15-34 year olds in December 2018 (Australian Bureau of Statistics, 2019), the sample over-represented NSW while underrepresenting Qld, but was otherwise similar in distribution across jurisdictions. One important limitation, albeit common with prior studies such as Lim et al. (2010) is that analysis of drug use and EMT concern behaviour of festival attendees – but are not restricted to practices at festivals themselves.

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<sup>1</sup> Respondents to GDS can skip questions if they do not wish to complete specific items. As a result of this format, missing data exist. In this bulletin we use complete case analysis (dropping any cases with missing data for that analysis). Ethics approval for this analysis was obtained by the University College London Research Ethics Committee (11671/001), the University of New South Wales Human Research Advisory Panel (HC17752) and the University of Queensland (2017001452/11671/001).

## Demographic profiles: Who is going to Australian music festivals?

As outlined in Table 1, the majority of Australian music festival attendees sampled through the GDS2019 (n=5,155) were young (with a mean age of 22.39), male (54.8%), heterosexual (76%) and white (86.5%). They were well educated, with 42.8% having completed year 12 schooling and a further 29.5% having a university degree. Moreover, 85.6% were employed with full time (40.8%) or part time jobs (44.8%). Just over a third (36.3%) reported ever having been diagnosed with a mental health condition. Despite high levels of illicit drug use (see later section), few reported ever having received a criminal conviction (6.0%).

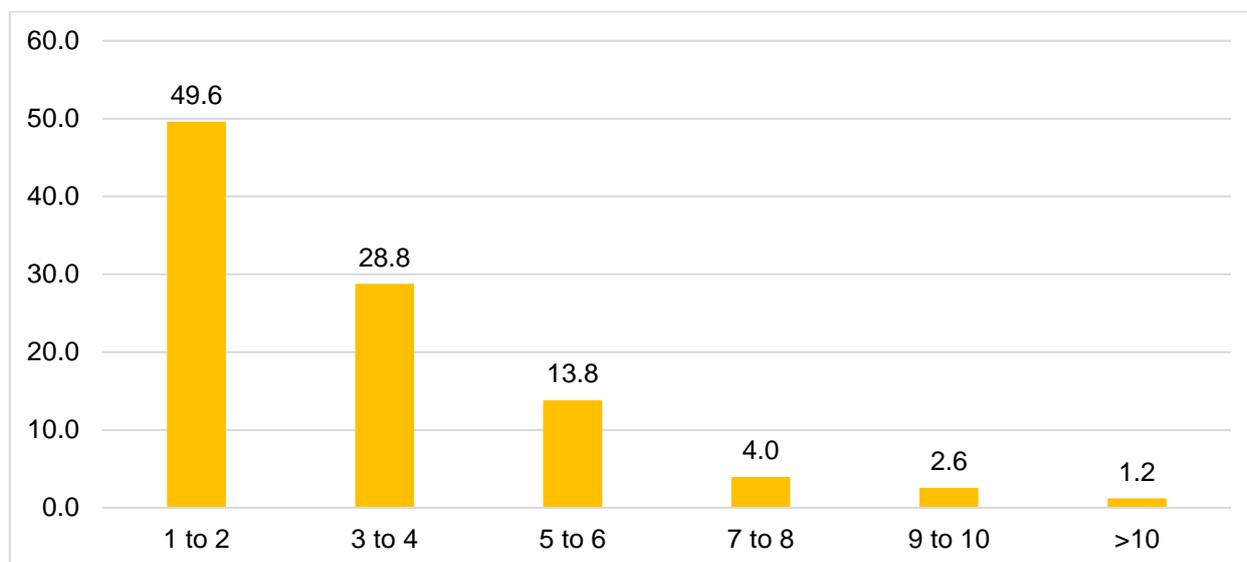
**Table 1: Demographics of GDS2019 Australian Music Festival Attendees (n=5,155)**

Characteristic	Proportion
Age	Mean: 22.39, SD=6.16. Range 16-70
Gender	54.8% male, 44.3% female, 0.8% non-binary
Residence	73.5% city, 22.2% regional. 4.3% rural/remote
Sexual orientation	76.0% heterosexual, 16.9% bisexual, 7.1% other
Ethnicity	86.5% white, 6.4% mixed, 2.4% Asian, 1.6% Indigenous, 3.1% other
Highest qualification attained	42.8% year 12, 12.9% a college certification, 23.3% undergraduate degree and 6.3% a postgraduate degree
Employment	85.6% paid employment, 7.1% unemployed looking for work, 7.4% unemployed not looking for work
Lifetime history of diagnosis with a mental health condition	36.3%
Lifetime history of a criminal conviction	6.0%

## Frequency and nature of festival attendance

It is often assumed that people going to festivals are 'hardcore' or regular attendees, but the GDS2019 data indicate that almost half (49.6%) of the Australian festival attendees reported going to only 1-2 festivals per year. A further 28.8% reported going to 3-4 festivals, 13.8% to 5-6 festivals and 7.8% to more than that (see Figure 1). The majority can thus be deemed infrequent attendees. Most (89.3%) went only to festivals within Australia, but 8.9% reported going to festivals in Australia and abroad, and a further 1.8% only to festivals outside of Australia. When asked about what types of festivals people went to, the most commonly reported were live music with bands (67.7%) and live DJs (60.1%). In contrast, dance festivals (21.1%) and psychedelic festivals (17.2%) were less common.

**Figure 1: Number of festivals attended in the last 12 months (% of respondents)**



### **Drug use patterns of Australian music festival attendees**

Almost all respondents (99.7%) reported they had used a drug (including alcohol) in the last 12 months and 98.4% reported they used an illicit drug. This reflects the nature of the GDS sample. As outlined in Table 2, the most commonly used drugs amongst these Australian music festival attendees were alcohol, MDMA, cannabis and cocaine, reported by 96.6%, 79.5%, 74.0% and 69.1% of the sample respectively in the last 12 months. But looking at the frequency of use shows that while alcohol consumption was common, with 44.1% reporting using alcohol weekly or more often, and 64.3% having a typical amount of equal to or more than 5-6 standard drinks (defined as a binge amount by the National Health and Medical Research Council (NHMRC) guidelines; NHMRC, 2009), most people used illicit drugs infrequently. For example, the GDS2019 sample of Australian festival attendees reported using MDMA, cannabis and cocaine on a median of 10, 30 and 5 days respectively in the last 12 months. The frequency is less than amongst sentinel surveys of Australian regular stimulant users, such as the 2018 Ecstasy and related Drug Reporting System (EDRS) survey, where respondents reported MDMA, cannabis and cocaine use on a median of 24, 96 and 6 days respectively in the last 12 months (Peacock et al., 2018).<sup>2</sup>

The typical quantities consumed by these Australian music festival attendees in a day of use are outlined in Table 2, including a median of 2 MDMA pills/caps or 0.3 grams of MDMA powder, 0.5 grams of cocaine and 0.3 grams of meth/amphetamine. We note that this excludes atypical amounts which may be larger (see for example Hughes et al. (2014) which showed that in a heavy or binge session the maximum quantities of MDMA consumed in Australia were 3.5 grams (WA), 5.4 grams (Vic) and 6.7 grams (NSW)). Nevertheless, here we see the typical amounts consumed are near identical with that reported in the 2018 EDRS survey of people who regularly consume stimulants: 2 MDMA pills or 0.3 grams of MDMA powder, 0.5 grams cocaine and 0.25 grams methamphetamine (Peacock et al., 2018).

<sup>2</sup> EDRS data was converted from six-monthly to yearly estimates for comparability.

**Table 2: Rates of use, frequency and typical amounts consumed, by type (n=5,155)**

Drug type	Rates of use in last 12 months	Frequency	Typical amount per day of use
<b>Alcohol</b>	95.6%	4.4% never, 12.5% monthly or less, 38.8% 2-4 times/month, 33.7% 2-3 times/week, 10.6% ≥4 times/week	9.5% 1-2 standard drinks, 23.3% 3-4, 23.7% 5-6, 20.6% 7-9 & 22.9% 10 or more standard drinks
<b>MDMA</b>	79.5%	10 days per year	2 pills/caps or 0.3 grams powder
<b>Cannabis</b>	74.0%	30 days per year	5 grams
<b>Cocaine</b>	69.1%	5 days per year	0.5 grams
<b>Amphetamine</b>	39.2%	3 days per year	0.3 grams
<b>Ketamine</b>	38.6%	4 days per year	0.3 grams
<b>LSD</b>	38.1%	3 days per year	1 tab
<b>Magic mushrooms</b>	24.8%	2 days per year	5 mushrooms
<b>Methamphetamine</b>	6.9%	5.5 days per year	0.3 grams
<b>GHB</b>	3.9%	2.5 days per year	6 millilitres

### Likelihood and nature of police encounters

Almost three quarters of respondents (74.5%) reported they encountered police in relation to their drug use in the last 12 months, and 68.5% reported drug dog encounters at festivals specifically. Drug-related police encounters were more commonly reported amongst NSW festival attendees compared to those from other states/territories. For example, 78.6% of NSW respondents reported any drug-related police encounter in the last 12 months compared to 71.6% of non-NSW respondents ( $\chi^2_{(1)}=10.48$ ,  $p<0.01$ ), and police drug detection dog encounters at music festivals were even more common amongst NSW festival goers: 79.2% versus 61.7% amongst non-NSW festival attendees respectively ( $\chi^2_{(1)}=43.52$ ,  $p<0.001$ ).

Comparing those policed versus those not policed indicated several significant demographic and behavioural differences. Specifically, those reporting drug-related police encounters in the last 12 months were younger (mean age 22.86 compared to 23.71 for those not policed:  $F_{(1,2311)}=6.90$ ,  $p<0.05$ ) and more frequent festival attendees (49.9% compared to 37.0% of those not policed ( $\chi^2_{(1)}=29.23$ ,  $p<0.01$ )). They were also significantly more likely to report last 12-month consumption of MDMA, cocaine, methamphetamine, LSD, magic mushrooms and ketamine. For example, 91.6% of Australian festival attendees who were policed reported MDMA consumption versus 85.5% of those not policed ( $\chi^2_{(1)}=14.64$ ,  $p<0.001$ ). There was no significant difference in last 12-month use of alcohol, cannabis, GHB or amphetamine.

## Emergency medical treatment and help-seeking behaviour

Access to emergency medical treatment was uncommon, with only 6.4% of GDS2019 Australian festival attendees who engaged in recent drug use reporting accessing some form of emergency medical treatment in the last 12 months (see Table 3). However, 62.0% reported a desire to use lower amounts of any substance in the next 12 months and 16.0% reported they wanted help to do so. Practices differed by drug type. For example, of the most commonly used substances EMT was most commonly sought for alcohol and MDMA (for more details see Barratt et al., 2019), but amphetamine and methamphetamine were most commonly cited in relation to a desire to use less, followed by alcohol and cannabis (with 41.0%, 58.7%, 39.5% and 36.7% respectively). Relatively small numbers reported a desire for help in achieving this goal.

**Table 3: Rates of EMT access and help-seeking behaviour amongst festival attendees**

Drug type	EMT access in last 12 months <sup>i</sup>	Desire to use less in next 12 months <sup>i</sup>	Desire for help to use less in next 12 months <sup>i</sup>
<b>Alcohol</b>	4.4%	39.5%	13.7%
<b>MDMA</b>	2.5%	30.5%	9.4%
<b>Cannabis</b>	0.9%	36.7%	15.0%
<b>Cocaine</b>	0.7%	27.7%	8.3%
<b>Amphetamine</b>	1.0%	41.0%	4.3%
<b>Ketamine</b>	0.4%	20.0%	1.0%
<b>Methamphetamine</b>	4.3%	58.7%	22.5%
<b>GHB</b>	4.1%	31.0%	#
<b>Any drug type</b>	6.4%	62.0%	16.0%

<sup>i</sup> Of those reporting using that drug in the last 12 months. # Data suppressed due to sample size.

Australian festival attendees reporting any EMT access tended to be younger (mean age 21.15, compared to 22.62 for those not reporting EMT,  $F_{(1,4354)}=14.50$ ,  $p<0.001$ ). For details see Barratt et al. (2019). In contrast, Australian festival attendees indicating they wanted to use less were older (mean age 22.95 compared to 21.84 for those not wanting to use less,  $F_{(1,4441)}=33.67$ ,  $p<0.001$ ). They were also more likely to be male (57.4% compared to 50.6% of those not wanting to use less,  $\chi^2_{(1)}=19.42$ ,  $p<0.001$ ), to report ever having been diagnosed with a mental health condition (37.6%, compared to 33.7% of those not wanting to use less,  $\chi^2_{(1)}=4.91$ ,  $p=0.02$ ) and to attend festivals frequently (51.1% compared to 48.3% of those not wanting to use less  $\chi^2_{(1)}=3.33$ ,  $p=0.04$ ). There is no evidence that EMT or help-seeking behaviour was associated with higher policing encounters or encounters with drug dogs at festivals specifically.

## Implications

Analysis of 5,155 Australian music festival attendees recruited over November to December 2018, shows that most festival attendees are infrequent attendees, and they are a young, white, educated, professional population. Alcohol, MDMA, cannabis and cocaine are the most commonly consumed drugs by these Australian festival attendees, but patterns of use vary significantly particularly between alcohol and illicit drugs, with frequent consumption of alcohol (often at binge levels), but low typical frequency and modest amounts of illicit drugs consumed. Most illicit drug use amongst this population thus appears occasional and relatively non-problematic.

Nevertheless, we see some evidence of drug-related harms, most notably, 6.4% of all sampled festival attendees who had engaged in recent drug use reported at least one emergency medical treatment in the last 12 months. Added to that is evidence of high reported interest in a desire to reduce drug use (mainly in relation to meth/amphetamines, alcohol and cannabis). We also see high rates of mental health diagnosis, with just over a third reporting ever having had a mental health diagnosis.

The data reinforce the high rates of police encounters by Australian festival attendees and drug detection encounters specifically at music festivals. This is particularly the case in NSW: consistent with the findings of Hughes et al. (2017) and Agnew-Pauley and Hughes (2019). It is also consistent with our recent cross-national analyses that showed that across 26 countries Australia had one of the highest rates of drug detection dog encounters with people who use drugs (Hughes et al., 2018). While we found no evidence that policing encounters were associated with EMT or a desire to use less, the high rates of policing is nevertheless a concern, given the known harms/risks that can occur from this at festival settings e.g. encouraging double dropping (Dunn & Degenhardt, 2009; Grigg et al., 2018a; Malins, 2019), encouraging a change in what drugs are consumed (Dunn & Degenhardt, 2009) and/or switching to buying drugs within festival grounds (Hughes et al., 2017; Grigg et al., 2018a). GDS2020 will further explore the impacts of drug detection dogs and searches at venues on risk taking behaviours of participants, taking into account different legal and regulatory contexts, across the globe.

These findings raise a number of implications. First in a context where there is often understandable focus on the harms from illicit drugs, it reminds us that most patterns of illicit drug use amongst Australian festival attendees appear occasional and non-problematic (see also Lai et al., 2013). Second, mindful of the risks of harm and interest in reducing drug use, it suggests that the festival setting could be a good opportunity to educate, inform and refer on interested attendees to drug or alcohol education or treatment. This reinforces the benefits of peer educators such as the Dancewize team, on-site drug checking services and targeted education/harm reduction. Third, it adds to calls about how to better balance public health and safety at Australian music festivals, such as through reducing deployment of drug detection dogs, expanding police drug diversion programs and/or removal of criminal penalties for use and personal possession of illicit drugs (Hughes et al., 2019). This is particularly in light of research showing that removing or lessening criminal penalties for use and possession can lead to significant public health, criminal justice system, social and economic benefits, including increasing health service engagement (Benfer et al., 2018; Hughes et al., in press).

Finally, it reinforces that alcohol remains the biggest contributor to drug related harm at Australian music festivals and should be a priority area for festival safety. The high rates of binge alcohol consumption and the fact that over a third wanted to drink less means that we need to better support young people to make positive choices. A new Drinks Meter app, developed by GDS and funded by NSW Health, may be one tool for doing so.

### Suggested citation

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