



IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2016 6116

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)

Section 67 of the Coroners Act 2008

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| Deceased: | Jordan |
| Delivered on: | 31 March 2021 |
| Delivered at: | Coroners Court of Victoria, 65 Kavanagh Street, Southbank |
| Hearing dates: | Inquest: 23 September 2020 |
| Findings of: | Coroner Paresa Antoniadis Spanos |
| Counsel assisting the Coroner: | Leading Senior Constable Duncan McKenzie from the Police Coronial Support Unit |
| Representation: | Jordan's parents participated via Webex and represented themselves. |

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INTRODUCTION

1. Jordan was the youngest of three sons born to Andrew and Patricia and was raised and educated in the Pakenham area. When Andrew and Patricia separated in 1998 and his father re-married, Jordan lived with his father and stepmother Nicole. After leaving school, Jordan worked in labouring jobs before working in his father's concreting and earthmoving business.
2. When he died, Jordan had been in a relationship with Ellie for about two years and spent a lot of time at the house she shared with friends in Pakenham, although he continued to live with his father and stepmother and their children.
3. Jordan had no known medical issues and lived an active lifestyle. His father was unaware of any drug use on Jordan's part. However, according to associates, Jordan was known to have occasionally used pills, cocaine, speed and ketamine in the company of his mates when drinking. Jordan did not drink alcohol during the week and was a social drinker, preferring whiskey and mainly drinking on the weekends in the company of friends.
4. Jordan was one of five individuals to die in Melbourne between July 2016 and January 2017, either as a direct or indirect result of ingesting a dangerous combination of two novel psychoactive substances (NPS). These were generally being marketed around Melbourne, including the nightclub scene in tablet form as MDMA but actually comprised 25C-NBOMe and 4-Fluoroamphetamine. It is appropriate to note that the coronial investigations were delayed pending the prosecution of several individuals involved in the supply of similar drugs, although I am unaware of any direct evidence linking those prosecutions to the deaths under investigation here.
5. Although separate briefs were compiled in relation to each death, given the commonality of the unusual and dangerous combination of NPS implicated, a cluster investigation ensued including an inquest primarily focused on the potency of the NPS and any prevention opportunities. Apart from matters personal to each deceased such as their background and reaction to the NPS, a finding in identical terms to this one will be delivered in respect of each deceased.

CIRCUMSTANCES IMMEDIATELY PROXIMATE TO DEATH

6. On Wednesday 21 December 2016, at about 6.00pm, Jordan met up with his brother at a mutual friend's property and mentioned he had purchased ten MDMA capsules. The following afternoon, Jordan met up with a large group of friends at the Cardinia Hotel, Beaconsfield, before moving to the Central Hotel. At this location, Jordan took out a clear plastic bag containing about 8-10 capsules and showed it to a friend who thought he may have taken one of the capsules as he appeared to be affected by more than alcohol.

7. At about 7.45pm on 22 December 2016, Jordan and some others went to Luke's house to change for an evening at a nightclub in Narre Warren. Three of the young women in the group left the house for about 20 minutes and when they returned, they observed the behaviour of three young men had changed and suspected they had taken drugs.
8. One of the young men was staring at a wall saying strange things to himself and dancing in his chair and another was outside with his head in his hands rocking back and forth. At first, Jordan was pacing up and down the hallway in an agitated state with his shirt off. He then went outside and started running around as if he was being chased. He looked scared and was swearing and saying strange things. Jordan charged at one of the young women connecting with her shoulder before saying 'get the fuck away from me, I can't do this' despite there being no one near him at the time.
9. Jordan's friends tried to get him to calm down, but he would not. He moved into the kitchen area and charged at the kitchen window sending items flying everywhere, before charging at the front door. Ellie was called to come and help, and a couple of other friends were collected from the Central Hotel to come and help. Two of the friends restrained Jordan on the ground to calm him. They had never seen him like this before and knew he had taken something more than alcohol. Someone called out for the police to be called. A neighbour also came to assist.
10. After about 20 minutes of restraint, they realised that Jordan was no longer struggling and had stopped breathing. Two people started cardiopulmonary resuscitation (**CPR**) until police arrived at 10.50pm and took over CPR until the arrival of Ambulance Victoria (**AV**) paramedics at 11.05pm. By 11.15pm paramedics advised that they had found a pulse and CPR was stopped. Jordan was stabilised, intubated to secure his airway, and transported by ambulance to the Alfred Hospital (**the Alfred**).
11. Initial investigations at the Alfred revealed a likely hypoxic brain injury. Over the next 24 hours, Jordan developed fixed and dilated pupils and active treatment continued. Repeat CT scanning of the brain showed progressive tonsillar and uncal herniation and Jordan became unresponsive to further management. At 10.45am on 25 December 2016 a consultant intensivist and consultant neurologist certified Jordan as brain dead and he remained on life support to facilitate organ donation as his family had generously consented to organ donation.

INVESTIGATION AND SOURCES OF EVIDENCE

12. This finding is based on the totality of the material the product of the coronial investigation of Jordan's death. That is, the evidence at inquest and the brief of evidence compiled by the Coronial Investigator (**CI**) Senior Constable Christine Johnstone (and recompiled by L/S/C

McKenzie from the Police Coronial Support Unit). The brief included statements from Jordan's associates, Ambulance Victoria paramedics and Victoria Police members; scene photos; the eMedical deposition from the Alfred; the autopsy report and toxicology report from the Victorian Institute of Forensic Medicine (VIFM); and a report from Head of Forensic Science and Toxicology at VIFM, Dr Dimitri Gerostamoulos.

13. Following the inquest, I sought an expert report from drug harm researcher Dr Monica Barratt and sought submissions from several relevant entities about proposed prevention-focused comments and recommendations suggested by the circumstances in which Anson and four others died from ingesting the same Novel Psychoactive Substances (NPS) at around the same period of time. Those NPS, Dr Barratt's report and the submissions will be discussed in some detail below.
14. All of this material, together with the inquest transcript, will remain on the coronial file.¹ In writing this finding, I do not purport to summarise all the material and evidence but will only refer to it in such detail as is warranted by its forensic significance and the interests of narrative clarity.

PURPOSE OF A CORONIAL INVESTIGATION

15. The purpose of a coronial investigation of a *reportable death*² is to ascertain, if possible, the identity of the deceased person, the cause of death and the circumstances in which death occurred.³ Jordan's death clearly falls within the definition of reportable death as it appears to have been unexpected and/or unnatural.
16. The *cause* of death refers to the *medical* cause of death, incorporating where possible the *mode* or *mechanism* of death. For coronial purposes, the *circumstances* in which death occurred refers to the context or background and surrounding circumstances but is confined to those circumstances sufficiently proximate and causally relevant to the death, and not all those circumstances which might form part of a narrative culminating in death.⁴

¹ From the commencement of the *Coroners Act 2008* (the Act), that is 1 November 2009, access to documents held by the Coroners Court of Victoria is governed by section 115 of the Act. Unless otherwise stipulated, all references to legislation that follow are to provisions of the Act.

² The term is exhaustively defined in section 4 of the *Coroners Act 2008* [the Act]. Apart from a jurisdictional nexus with the State of Victoria a reportable death includes deaths that appear to have been unexpected, unnatural or violent or to have resulted, directly or indirectly, from an accident or injury; and, deaths that occur during or following a medical procedure where the death is or may be causally related to the medical procedure and a registered medical practitioner would not, immediately before the procedure, have reasonably expected the death (section 4(2)(a) and (b) of the Act). Some deaths fall within the definition irrespective of the section 4(2)(a) characterisation of the 'type of death' and turn solely on the status of the deceased immediately before they died – section 4(2)(c) to (f) inclusive.

³ Section 67(1).

⁴ This is the effect of the authorities – see for example *Harmsworth v The State Coroner* [1989] VR 989; *Clancy v West* (Unreported 17/08/1994, Supreme Court of Victoria, Harper J.)

17. The broader purpose of any coronial investigations is to contribute to the reduction of the number of preventable deaths through the findings of the investigation and the making of recommendations by coroners, generally referred to as the *prevention* role.⁵ Coroners are empowered to report to the Attorney-General in relation to a death; to comment on any matter connected with the death they have investigated, including matters of public health or safety and the administration of justice; and to make recommendations to any Minister or public statutory authority on any matter connected with the death, including public health or safety or the administration of justice.⁶ These are effectively the vehicles by which the coroner's prevention role can be advanced.⁷
18. Coroners are not empowered to determine the civil or criminal liability arising from the investigation of a reportable death and are specifically prohibited from including in a finding or comment any statement that a person is, or may be, guilty of an offence.⁸

IDENTIFICATION

19. Jordan was born on 22 September 1994 and was identified by his father Andrew who signed a formal State of Identification dated 25 December 2016 to this effect before a Registrar in the treating team at the Alfred.
20. Identification was not in issue and required no further investigation.

MEDICAL CAUSE OF DEATH

21. Senior Forensic Pathologist Dr Malcolm Dodd from the Victorian Institute of Forensic Medicine (**VIFM**) reviewed the circumstances of the death as reported by police to the Coroner (the Form 83), post mortem computed tomography scanning of the whole body undertaken at VIFM (**PMCT**), information on the VIFM contact log and medical records and the e-medical deposition from the Alfred and performed an autopsy. Having done so Dr Dodd provided a 14-page written report of his findings and an opinion as to the cause of death.
22. Dr Dodd noted patchy areas of bruising on Jordan's body consistent with impact into a blunt surface as may be seen in a person who is drug affected (and consistent with witness accounts of Jordan's behaviour shortly before his cardiorespiratory collapse). He also noted patchy

⁵ The 'prevention' role is now explicitly articulated in the Preamble and purposes of the Act, compared with the *Coroners Act 1985* where this role was generally accepted as 'implicit'.

⁶ See sections 72(1), 67(3) and 72(2) regarding reports, comments and recommendations respectively.

⁷ See also sections 73(1) and 72(5) which requires publication of coronial findings, comments and recommendations and responses respectively; section 72(3) and (4) which oblige the recipient of a coronial recommendation to respond within three months, specifying a statement of action which has or will be taken in relation to the recommendation.

⁸ Section 69(1). However, a coroner may include a statement relating to a notification to the Director of Public Prosecutions if they believe an indictable offence may have been committed in connection with the death. See sections 69 (2) and 49(1).

subconjunctival haemorrhages with no evidence of frank petechial haemorrhage, the absence swaying against an asphyxia component to the death during the time of restraint. Dr Dodd found no evidence of significant natural disease.

23. Extensive toxicological analysis was undertaken on both ante-mortem and post-mortem specimens. The Novel Psychoactive Substances (NPS) 25CNBOMe and 4-Fluoroamphetamine were detected in ante-mortem serum and post-mortem blood and a metabolite of cocaine was detected in an antemortem sample of blood collected on admission to the Alfred. No alcohol or other commonly encountered drugs or poisons were detected other than other than morphine, midazolam and levetiracetam, consistent with therapeutic use in the ICU and palliative setting. The reporting toxicologist advised that NPS (25CNBOMe and 4-Fluoroamphetamine) can lead to adverse effects including seizures, cardiac failure and death.
24. Dr Dodd formulated the medical cause of Jordan's death as *1(a) hypoxic/ischaemic encephalopathy 1(b) restraint in the context of combined drug toxicity.*

THE FOCUS OF THE CORONIAL INVESTIGATION & INQUEST

25. The main focus of the coronial investigation of Jordan's death and the deaths of the other four deceased forming part of a cluster of deaths associated with the ingestion of the same two NPS was on:
- i. the deceased's access to the NPS;
 - ii. the nature of the NPS, including their known effects and potency; and
 - iii. exploration of the potential for prevention-focused comments and recommendations.
26. I note that the main focus of the coronial investigation as reflected in the brief originally submitted by the CIs (in respect of each death) was on access to and the immediate effects of the NPSs; the main focus of the inquest was on receiving and exploring the nature of the NPS; while the main prevention-focused investigation occurred subsequent to the inquest.

THE NPS IMPLICATED IN THE DEATH/S: 25C-NBOMe & 4-FLUOROAMPHETAMINE

27. Apart from the routine toxicology report provided by VIFM, at my request, Dr Dimitri Gerostamoulos, Head Toxicologist at VIFM, provided an expert report about the two NPS implicated in the death of Jordan and others and testified at inquest. The following paragraphs rely on his evidence.

28. 25C-NBOMe⁹ is a designer novel psychoactive substance (NPS). It is in a class of NPS, which are N-methoxybenzyl substituted 2C phenylethylamine hallucinogens. Street names include “C-Boom”, “Cimbi-82”, “Pandora” and “Dime”. The substance is available in powder form, pills or as blotter paper.
29. Anecdotal reports indicate that 25C-NBOMe is highly potent and can be taken either by placement under the tongue or in the cheek, swallowed or via nasal ingestion. It can cause several hallucinogenic effects such as extreme patterning, vibrant colouring, euphoria, acceleration of thought and time distortion.
30. Potential complications include hyperthermia, seizures, metabolic acidosis, rhabdomyolysis, organ failure and death.
31. The NPS 4-Fluoroamphetamine (**4-FA**) is commonly known as 4-FA or 4-FMP, Flux or FIFA. It is a psychomotor stimulant that was first synthesized in the 1940s and has been found in products sold as ecstasy and amphetamine powders, as well as an adulterant in other illicit substances.
32. 4-FA may be able to inhibit monoamine oxidase as it functions as a substrate-style releasing agent of dopamine, norephedrine and serotonin. It is a ring-substituted analogue of amphetamine with properties that are also encountered with cocaine and other amphetamine-like psychostimulants; a key feature of the substance is its ability to increase extracellular levels of dopamine, norepinephrine (noradrenaline) and serotonin.
33. It is most often imbibed orally or via nasal insufflation. Users of 4-FA report stimulant effects with euphoric properties, described as intermediate between amphetamine and MDMA. Effects typically occur within 30 to 60 minutes of consumption and last for four to six hours.
34. Studies have shown that severe toxic effects include severe cardiovascular and cerebrovascular complications including intracerebral haemorrhage. As at 2012, (only) one fatal case implicating 4-FA had been reported in the literature.
35. Dr Gerostamoulos’ evidence, particularly his evidence at inquest, stressed the particular challenges posed by NPS and the transient nature of the NPS market - *“One thing that must be noted about these novel psychoactive substances is that many of these drugs are transient. So what we were seeing perhaps in 2016 and 17 are no longer really observed in any drug market nor detected in any of our ah analyses that we currently conduct. We do look for these routinely*

⁹ The chemical name of 25C-NBOMe is 2-(4-chloro-2,5-dimethoxyphenyl)-N-[2-methoxyphenyl-methyl]ethanamine.

and I can tell the court that we have not seen either of these two drugs [4-fluoroamphetamine and 25C-NBOMe] in the last few years um and certainly not in combination.”¹⁰

36. I understood the implication to be that, while the combination of 4-fluoroamphetamine and 25C-NBOMe may never appear again in Victoria, there are hundreds and hundreds of other novel psychoactive substances presenting similar risks of harm and death (either alone or in combination) which may be potentially be circulating through the State's unregulated drug markets now and in the future. Mitigating the harms these drugs may cause requires interventions that target novel psychoactive substances generally, rather than 4-fluoroamphetamine and 25C-NBOMe specifically.

CORONERS PREVENTION UNIT

37. To assist this aspect of my investigation I asked an investigator from the Coroners Prevention Unit (CPU)¹¹ to identify and engage an appropriate expert witness to review the deaths under investigation and to advise as to potential prevention-focuses opportunities. The CPU engaged Dr Monica Barratt, a Senior Research Fellow at the Royal Melbourne Institute of Technology (RMIT) with expertise in drug harm reduction and the use of NPS.

38. Dr Barratt reviewed the coronial briefs of evidence in relation to the death of Anson and four others, and provided an expert report addressing the following four questions:

- a) What measures are already in place in Victoria to reduce the risk of further deaths occurring in similar circumstances?
- b) What is done in other jurisdictions (Australian or overseas) which is not done in Victoria, to reduce the risk of deaths occurring in similar circumstances?
- c) Are there any opportunities for new interventions to be introduced in Victoria to reduce the risk of similar deaths occurring in the future?
- d) For any new intervention that could be considered for Victoria what practical issues might need to be addressed?

39. Dr Barratt's expert report was influential in shaping my understanding of the broader context in which the deaths occurred, and therefore warrants summarising in this finding.

¹⁰ Inquest transcript page 85.

¹¹ The Coroners Prevention Unit is a business unit in the Coroners Court of Victoria, whose staff support coroners' investigations through activities such as collating data, reviewing evidence, compiling literature reviews, and consulting with relevant experts and organisations. The CPU's central purpose is to assist coroners to identify opportunities to reduce preventable deaths.

DR BARRATT'S EXPERT REPORT

40. Dr Barratt noted that in all five cases, the people who died did not know they were consuming the novel psychoactive substances 4-fluoroamphetamine and 25C-NBOMe. Instead they believed they were consuming MDMA or (in one case) psilocybin. Dr Barratt wrote that this is a key risk under Australia's current drug control regime, that is that certain drugs are prohibited and therefore are not regulated with respect to labelling or content or quality.
41. Accepting that people will continue to use drugs of all types, and that Australian and international drug controls are unlikely to change in the near future to enable regulated supply of currently-illegal substances such as MDMA and psilocybin, Dr Barratt posited that the prevention of future deaths resulting from adulterated or mis-sold drugs requires timely and verifiable information about what drugs contain and what drugs are being consumed.¹²
42. Dr Barratt identified two related harm reduction initiatives that could be implemented to achieve this prevention goal.
43. The first initiative is a drug checking service, also known colloquially as a pill testing service. A person who obtains a drug from unregulated markets can submit a sample to the service, where it is analysed to establish what it contains; this information is then used to inform harm reduction responses.
44. There are many different service models for drug checking. In some models the sample is submitted in person; other models entail submission via post or a secure drop box. In some models the results of analysis are provided back to the person who submitted the drug, together with tailored education on risks of consumption and strategies to manage these risks. Other models may not provide the results directly to the person but may instead circulate public warnings if analysis reveals a substance of particular concern. Some models involve fixed testing sites, whereas others involve mobile testing sites that can be set up at events where people who use drugs might attend.
45. The second initiative is to establish an effective early warning network to alert the public and to disseminate information rapidly on substances of concern that have been identified circulating in unregulated drug markets.
46. A drug early warning network ideally integrates information from a range of sources including drug checking services, people who use drugs, police forensic analysis of seized drugs, wastewater analysis, analysis of used drug equipment, and analysis of biological samples taken

¹² Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 3.

from people in clinical settings. Alerts may specify the appearance of a substance, where it is known to circulate, what it contains, and harm reduction advice on risks of consumption and countermeasures to reduce those risks if the substance is consumed.

47. At present drug checking services are not permitted to operate in Victoria, and there is no integrated drug early warning network. Dr Barratt explained the relevance of drug testing to the circumstances of the five deaths as follows: *“If the deceased had known their drugs contained 4-FA combined with 25C-NBOMe rather than MDMA, they may have decided not to take the drug at all, or they may have taken it anyway but via a different route of administration.”*¹³
48. With respect to a drug early warning network, Dr Barratt noted police were aware at an early stage that the risky combination of 4-fluoroamphetamine and 25C-NBOMe was in circulation in Victoria, however: *“The lack of a rapid pathway for public drug alerts or warnings from existing information regarding the existence of a brown crystalline substance containing 4-FA/25C-NBOMe in January 2017 meant that information available to Victoria Police was not shared with the public directly [...]”*¹⁴
49. In the main body of her expert report, Dr Barratt expanded upon these points to describe what is currently being done in Victoria to progress drug testing and early warning networks, and what else needs to be done to realise their harm reduction potential.

Current measures to reduce the risk of death

50. Dr Barratt noted that there are several initiatives underway to understand what drugs are being used across Victoria's unregulated drug markets, and to disseminate this information for harm reduction purposes to people who use drugs. These include:
- a. Victoria Police Forensic Services analysis of police seizures across illegal drugs, with the data disseminated internally to inform police understanding of drug markets.
 - b. A National Centre for Clinical Research on Emerging Drugs (**NCCRED**) research project involving multiple partners including Victoria Police, the Victorian Department of Health, and Harm Reduction Victoria (**HRV**), which aims to translate forensic data from police drug seizures into clinical alerts about unusual drug trends and drug detections.
 - c. A Victorian Department of Health and Human Services (**DHHS**) public alert in March 2020 about a drug sold as MDMA that instead contained a novel psychoactive substance named N-ethylpentylone.

¹³ Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 3.

¹⁴ Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 4.

- d. The Rapid and Precise Intelligence on Drugs (**RAPID**) pilot project at the University of Melbourne, funded by DHHS, which tests for drugs in samples taken from different places (for example discarded injecting equipment and wastewater) to track drug market changes and inform decisions about public drug alerts if any concerning findings emerge.
- e. An NCCRED-funded project to test urine in a cohort of people who use heroin, to detect the presence of other opioids that these people may not have intentionally consumed.
- f. HRV's DanceWize harm reduction initiative, through which peer workers at music festivals and other events (as well as online) disseminate drug alerts and harm reduction messages to people who attend the events.
- g. The activities of not-for-profit organisation The Loop Australia, which is undertaking background work in chemistry, research and healthcare to inform the Victorian implementation of a drug checking service "when it becomes legally and politically possible to do so".¹⁵

What is being done elsewhere in Australia and internationally

51. Dr Barratt identified initiatives in two other states that are further advanced towards the type of drug checking services and drug early warning networks needed to achieve meaningful drug harm reduction. These were:

- a. New South Wales (**NSW**) established the NSW Health Standing Panel on Toxicity Risk in response to several deaths at music festivals. The Panel considers information on drug detections from sources including clinical toxicology and forensic testing and makes recommendations on public health and clinical alerts. A related initiative, the Prescription Recreational and Illicit Substances Evaluation, utilises laboratory toxicology testing results to contribute to alerts for clinicians and the public. The NSW Ministry of Health disseminates alerts via its networks.
- b. The Australian Capital Territory (**ACT**) government supported drug checking trials at a one-day music festival in 2018 and 2019. However, the conditions of the trials included that information derived from the checking would not be shared in real time with festival attendees, which limited its harm reduction potential.

52. Internationally, Dr Barratt highlighted the following relevant initiatives:

- a. The Dutch Drugs Information and Monitoring System, a network of offices where members of the public can submit substances for testing. If analysis identifies drugs that present a high risk, or drugs that were not expected (for example if the person submits a substance they believe to

¹⁵ Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 6.

be MDMA and it is actually contains 6-fluoroamphetamine), public alerts and tailored messaging for people who use drugs can be issued very quickly.

- b. The British Columbia Drug Overdose and Alert Partnership, which brings together people across health and law enforcement and harm reduction and treatment settings to collect and share data on drug detections and, where indicated, initiate public health interventions including clinical and public alerts.

What else could be done in Victoria

53. Dr Barratt stated that a consumer-facing drug checking service is needed, where people can submit substance samples for rapid analysis of content and purity. In submitting the sample, the person should specify what they believe the substance to be. Ideally, a drug checking service should incorporate timely feedback (that is, within minutes) to the person submitting the sample, so they can make an informed decision about consuming the substance. Analysis results - including differences between what the person believed the substance contained and what it actually contained - should also feed into a drug early warning network.
54. Dr Barratt also stated that testing of drugs from police seizures should be prioritised to eliminate lag time between seizure and testing, and between testing and dissemination of results. These drug seizures can be a vital source of information on evolution of unregulated drug markets, so long as this information is timely enough to detect issues as they emerge and inform responses.
55. Finally, Dr Barratt expressed the opinion that a Victorian drug early warning network or system is needed, possibly based on the British Columbia model, bringing together the broadest possible range of information sources (including drug checking service analysis) and stakeholders to identify and respond to issues in unregulated drug markets.

Practical issues to address in implementing these interventions

56. Dr Barratt noted that two major obstacles were repeatedly raised in consultations about improving drug early warning systems in Australia, namely a lack of resourcing and a lack of dedicated responsible organisations/entities.¹⁶ In this regard, Dr Barratt opined that developing a platform, shared vision and agree protocols for information sharing would enable a Victorian drug overdose and alert network to coordinate local efforts and that such a network would work best if it included members representing all relevant stakeholder groups, including peer

¹⁶ Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 10.

workers. In Dr Barratt's words "*At the moment this function is not anyone's normal responsibility, nor is the work funded.*"¹⁷

57. The implementation of a drug testing service and a drug early warning network would involve the resolution of many other quite specific practical issues. These include who has responsibility and oversight for the work; who is included in the network; who is data custodian; how privacy issues are managed; what protocols are used to assess incoming information; what are the triggers for public or clinical alerts; what accommodations might need to be made for the service and network to operate legally; and the physical location of any service. However, Dr Barratt stated that such practical issues have been addressed by other jurisdictions and are not insurmountable.¹⁸

The broader context

58. Dr Barratt's expert report give weight to a finding that a drug checking service and drug early warning network are practical and reasonable interventions which warrant consideration in the interests of preventing deaths such as Anson's and the other four deceased.

59. However, Dr Barratt's is not a lone voice. In her expert report, Dr Barratt referenced a recent NSW coronial finding involving the deaths of six individuals who used MDMA and were linked by their attendance at a music festival. Deputy State Coroner Harriett Grahame identified several opportunities to reduce the risk of similar deaths occurring the future, including the introduction of a drug checking and a drug early warning system in NSW, and made recommendations accordingly.¹⁹

60. Relevantly, the need for both types of interventions was recently recognised by a committee of the Parliament of Victoria. In March 2018, following comprehensive community and expert consultation, the members of the Parliament of Victoria's bipartisan Law Reform, Road and Community Safety Committee published their final report into the effectiveness of existing laws and procedures relating to illicit and synthetic drugs and prescription medications (the Committee).

¹⁷ Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 9.

¹⁸ Barratt M, Expert report commissioned by the Coroner of Victoria, 28 October 2020, page 10.

¹⁹ See Grahame, H. *Inquest into the deaths of six patrons of NSW music festivals*. Lidcombe: State Coroners Court of NSW, 8 November 2019. This was an investigation into the deaths of six young people who died in a setting of drug use at or shortly after attending music festivals. DSC Grahame's investigation identified consumption of high-purity MDMA as a common factor in the deaths, together with co-consumption of alcohol and other drugs. I note that the circumstances differed in two respects from the deaths under investigation here – firstly, the six people who died in NSW believed they were using MDMA and this was in fact the case, whereas in Victoria all five people believed the drug they took was something other than a combination of 4-fluoroamphetamine and 25C-NBOMe. In the second place, the NSW deaths were all linked to music festivals whereas the Victorian deaths occurring in a range of settings.

61. The Committee examined the risks presented by unregulated drug markets and the rise of novel psychoactive substances and concluded that a drug early warning system is essential to identify drugs circulating in these markets and respond where necessary with public health alerts.
62. In recommendation 7 of their final report, the Committee recommended that: The Victorian Government establish an early warning system (EWS) to enable analysis, monitoring and public communications about novel psychoactive substances (NPS) and other illicit substances of concern. This will require greater information sharing and collaboration between Victoria Police, the Victorian Institute of Forensic Medicine, the Department of Health and Human Services, coroners, hospitals, alcohol and other drug sector organisations (particularly harm reduction and peer-based services) and other interested stakeholders. Essential components of the EWS should include:
- a) real time public health information and warnings where required
 - b) developing a drug registry to understand the NPS market
 - c) a rapid response clinical toxicology service for hospitals and poison centres²⁰
63. The Committee also considered at length the need for a drug checking service in Victoria. They highlighted a range of benefits, including that knowledge about the contents of a substance can change a person's drug taking behaviour; the significant role that drug checking can play in informing drug early warning systems; the opportunities to deliver drug harm reduction education to people who submit substances for testing; and the potential for drug checking to have a positive impact in removing risky substances from unregulated drug markets.
64. The Committee considered but largely dismissed two commonly articulated objections to drug checking, which were that it will encourage drug use and implicitly convey the message that consuming a drug might be safe when it is not.²¹

²⁰ Parliament of Victoria Law Reform, Road and Community Safety Committee, *Inquiry into Drug Law Reform*, East Melbourne: Parliament of Victoria, March 2018, page 96.

²¹ “Recommendation 48: The Victorian Government work with the Department of Health and Human Services, Victoria Police, Ambulance Victoria and DanceWize to facilitate the availability on an onsite drug testing unit for health and law enforcement authorities at an appropriate music festival to be used in the event of a suspected overdose or other serious adverse effects due to an illicit substance. The unit would not be public facing and its purpose is to test substances to determine their composition to assist health authorities treat the patient and, where appropriate, release a public alert to prevent further incidents. The units will operate as part of the early warning system as recommended in chapter four.” Ibid page 526.

Also, Recommendation 49: The Victorian Government refer to the proposed Advisory Council on Drugs Policy the issues of drug checking services, and request that it monitor overseas and domestic models to obtain relevant evidence to inform consideration of a trial in Victoria. If appropriate, the Council should develop guidelines for such a trial (and include appropriate messaging e.g. not condoning drug use nor indicating that drug use is safe, appropriate technology, data collection and clear liability safeguards). The Council should also consider an evaluation framework to measure the future trial’s effectiveness in minimising drug-related harms.” Ibid page 527.

65. The Victorian Government was not receptive to these recommendations. While the early warning system recommendation was not directly addressed, in its formal response to the Committee's report and recommendations, the Victorian Government indicated that in 2018-2019 the Government will pilot a more coordinated response to overdose incidents at public events. This will include information-sharing among health and law enforcement agencies after ambulance officers attend a cluster of drug-related incidents at a public event.²² The recommendations regarding a drug checking trial were not well-received with the Government indicating its clear positions against changes such as pill testing.²³

SUBMISSIONS FROM STAKEHOLDERS

66. Following receipt of Dr Barratt's report, I asked the CPU to write to several significant organisations and individuals whose work intersects - or potentially intersects - with drug checking and drug early warning system initiatives, to provide each organisation with Dr Barratt's expert report and an overview of the deaths being investigated, and to invite any submission they might wish to make about two potential prevention-focused opportunities:

- a) Implementation of a drug checking service in Victoria; and
- b) Establishment of a lead agency with responsibility to implement a Victorian drug early warning network.

67. I received written responses from the following organisations and individuals. I am very grateful to each for their contribution to the coronial investigation of the death of Anson and the other four individuals and for their assistance to help me to better understand the context and prevention opportunities raised by the circumstances:

- a) Sione Crawford from Harm Reduction Victoria (HRV).
- b) Dr Anita Muñoz and Dr Hester Wilson from the Royal Australian College of General Practitioners (RACGP).
- c) Sam Biondo and David Taylor from the Victorian Alcohol and Drug Association (VAADA).
- d) Professor Euan Wallace from the Victorian Department of Health and Human Services (DHHS).
- e) Professor Gavin Reid from The University of Melbourne.

²² Victorian Government, *Response to the Parliamentary Inquiry into Drug Law Reform*, Melbourne: Victorian Government, August 2018, page 12.

²³ Victorian Government, *Response to the Parliamentary Inquiry into Drug Law Reform*, Melbourne: Victorian Government, August 2018, page 5.

- f) Will Tregoning from The Loop Australia.
- g) Chief Commissioner Shane Patton, Victoria Police.

Submissions from DHHS and the Chief Commissioner of Victoria Police

68. Professor Euan Wallace's submission on behalf of DHHS was brief but pithy, reiterating the central importance of harm reduction in Victorian drug policies and offering the following response to the two proposed interventions: *“The department is considering opportunities to better monitor and respond to alcohol and drug consumption, harm and risk in a more systematic and timely manner. This includes timely identification of harms through analysis of existing health and justice data and other testing sources. The Victorian Government has no current plans to trial pill testing at public events.”*²⁴
69. The submission on behalf of the Victoria Police Chief Commissioner clearly articulated an opposition to drug-checking, stating that "lawful drug checking could imply that drug use is condoned by the State Government and that there are circumstances in which consuming illicit drugs is safe."²⁵
70. The submission explained the Victoria Police perspective on harm reduction as follows: *“Drug checking as a harm-reduction initiative operates at the end point of drug use. That is, it occurs at a point when a person has already obtained illicit drugs and intends to consume them. Victoria Police is focused on opportunities to prevent and/or reduce drug use before this point and actively works to reduce the supply of drugs to the market in the first instance. Moreover, the organisation supports the health and education sectors to attempt to prevent the uptake of illicit drug use through education and early intervention.”*²⁶
71. The submission did not express a view on a drug early warning system if it was implemented by another organisation such as DHHS, however submitted that "presently, early warning systems that contain police drug seizure data are not supported by Victoria Police".²⁷

The other submissions

72. The remaining five submissions were generally supportive of both proposed recommendations, though noting Professor Reid's submission was focused on the scientific feasibility and

²⁴ Wallace E, Submission in response to Coroner's invitation, 14 December 2020, p.1.

²⁵ Submission on behalf of Victoria Police Chief Commissioner in response to Coroner's invitation, 21 December 2020, page 1.

²⁶ Submission on behalf of Victoria Police Chief Commissioner in response to Coroner's invitation, 21 December 2020, page 2.

²⁷ Submission on behalf of Victoria Police Chief Commissioner in response to Coroner's invitation, 21 December 2020, page 3. At risk of labouring the semantics, this is essentially a “prohibition” model and not what is generally referred to as “harm reduction.”

practicality of the interventions rather than their harm reduction potential, policy implications or other features.

Implementing a drug checking service

73. The need for a properly funded drug checking service was broadly supported, with Dr Muñoz and Dr Wilson noting "there is some urgency" to implement this intervention.²⁸ The following themes recurred in the discussion of drug checking.
74. The first theme was that drug checking services have been implemented successfully elsewhere in Australia and around the world. The emerging evidence from these implementations suggests that they are effective at reducing harms associated with drugs obtained from unregulated markets; for example people who have substances checked and learn they are not what was expected will often discard the substance rather than take it.
75. The second theme was Victoria's capability to implement drug checking immediately.
76. Professor Reid's evidence was particularly helpful in this respect. He described multiple drug checking strategies and analytical techniques that have been tested both in public-facing contexts ('front of house') and without public interaction ('middle of house') and outlined the strengths and weaknesses of different approaches. He concluded: *"In summary, on the basis of the information outlined above, I am confident in stating that implementation of a drug checking service in the State of Victoria, based on either 'middle of house' or 'front of house' operating models, is scientifically and technically feasible, and practical, but that appropriate attention must be given to ensure that the technologies employed for analysis are capable of providing definitive information regarding drug identities and purities."*²⁹
77. The third theme was that a drug checking service must include a public-facing component (what Professor Reid described as a 'front of house' model) to maximise harm reduction potential. Sione Crawford provided a comprehensive explanation as to why this is the case: *"[...] drug checking services should be public-facing first and foremost, so it is an accessible health service that people who use or are contemplating using drugs are provided with tailored information from the chemical analysis, harm reduction education, and health service referral options. A public-facing service also provides the immediate opportunity to thoroughly record and photograph the form of substances before consumption for a more comprehensive data set; and, if a drug sample produces results of an undesired substance, there is the immediate opportunity to dispose of it safely."*³⁰

²⁸ Muñoz A and Wilson H, Submission in response to Coroner's invitation, 16 December 2020, page 1.

²⁹ Reid G, Submission in response to Coroner's invitation, 22 December 2020, page 4.

³⁰ Crawford S, Submission in response to Coroner's invitation, 22 December 2020, page 4.

78. Related to this was the need to involve peers in the design and operation of any service. Sam Biondo and David Taylor noted a range of design factors may impact on whether people choose to engage with the service, and therefore whether it is successful. These include accessibility and inclusiveness, staff suitability, speed with which results are communicated, and what the service does to minimise stigma for people who use drugs. To maximise engagement, *"Those who will use the service are integral in informing the design"*.³¹ From an operational perspective, the expertise and insight of peers is needed to engage most effectively with service users. Dr Muñoz and Dr Wilson explained their crucial role as follows: *"The information provided by the service needs to be credible. A combination of trained staff to analyse the results of the test and peers from the groups involved and providing this in a safe environment without risk of legal consequences, will ensure acceptability and credibility for the service."*³²
79. The fifth main recurring theme was the concern that current policies criminalising drug use are jeopardising the prevention potential of a drug checking service, by potentially exposing all those involved (both clients and service staff) to legal issues. Will Tregoning from The Loop Australia advised that new legislation would be advantageous, to ensure a drug checking service can operate in the way intended.

Establishing a drug early warning network

80. In common with Dr Barratt's report, the submissions repeatedly emphasised the interdependence between drug checking services and drug early warning networks. The two were described as essentially two sides of the same coin, drug checking providing timely information on drug trends and emerging risks for early warning networks, and people with concerns about a substance after reviewing a network alert being able to access a drug checking service.
81. Consistent with this interdependence or interrelatedness, the major themes across the submissions regarding a drug early warning system mirrored those themes discussed above regarding drug checking.
82. The submissions highlighted the successful operation of drug early warning systems internationally; the fact that most elements of such a network already exist or have been trialled in one form or another in Victoria; the need for direct engagement with people who use drugs; the essential role that peers will play in ensuring the successful dissemination of drug early warning system alerts that are meaningful for people who use drugs; and drug criminalisation as a barrier to implementing an effective system.

³¹Biondo S and Taylor D, Submission in response to Coroner's invitation, 18 December 2020, page 9.

³² Muñoz A and Wilson H, Submission in response to Coroner's invitation, 16 December 2020, page 5.

FINDINGS/CONCLUSIONS

83. The standard of proof for coronial findings of fact is the civil standard of proof on the balance of probabilities, with the *Briginshaw* gloss or explications.³³
84. Adverse findings or comments against individuals or institutions are not to be made with the benefit of hindsight but only on the basis of what was known or should reasonably have been known or done at the time, and only where the evidence supports a finding that they departed materially from the standards of their profession and in so doing caused or contributed to the death under investigation.
85. Having applied the applicable standard of proof to the available evidence, I find that:
- a. The identity of the deceased is Jordan, born on 22 September 1994, aged 22.
 - b. Jordan died at The Alfred Hospital, 55 Commercial Road, Melbourne, on 25 December 2016.
 - c. The medical cause of Jordan's death is hypoxic/ischaemic encephalopathy secondary to restraint in the context of combined drug toxicity. The drugs involved are 25C-NBOME, 4-Fluoroamphetamine and cocaine.
 - d. Jordan's death occurred in the circumstances of an accidental or inadvertent overdose, that is, it was the unintended consequence of his intentional use of illicit drugs.

COMMENTS

Pursuant to section 67(3) of the Coroners Act 2008, I make the following comments connected with the death/s, including matters relating to public health and safety or the administration of justice:

1. Anson, Ilker, Jordan, Jason and James died after using a substance they obtained illegally in unregulated drug markets and as a direct or indirect consequence of that use. They each believed the substance contained MDMA (and/or in one case psilocybin), but in fact it contained a dangerous combination of two novel psychoactive substances, being 25C-NBOMe and 4-fluoroamphetamine.³⁴

³³ *Briginshaw v Briginshaw* (1938) 60 C.L.R. 336 especially at 362-363. "The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding, are considerations which must affect the answer to the question whether the issues had been proved to the reasonable satisfaction of the tribunal. In such matters "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony, or indirect inferences..."

³⁴

2. Risk has always existed when obtaining drugs from unregulated markets: for example the risk that the drug's contents are not what you believe them to be; the risk that the drug is more potent than expected; and the risk that the drug's contents are adulterated.
3. This risk is heightened through the proliferation of novel psychoactive substances: a term used to describe a wide range of psychoactive drugs that are for the most part poorly understood in terms of their potency, their effects on the individual, and their interactions with other drugs.
4. If we accept that there are unlikely to be any major changes to drug regulation in the foreseeable future, or any changes in individual's preparedness to use illicit drugs, Victorians will continue to be exposed to the risks of unregulated drug markets.
5. The evidence available to me supports a finding that there is broad support for a drug checking service and drug early warning network as evidence-based interventions, at least among those with knowledge and expertise in harm minimisation.

RECOMMENDATIONS

Pursuant to section 72(2) of the Coroners Act 2008, I make the following recommendations, including recommendations relating to public health and safety or the administration of justice.

1. That the Department of Health, as the appropriate arm of the Victorian Government, implements a drug checking service in the State of Victoria as a matter of urgency, to reduce the number of preventable deaths (and other lesser harms) associated with the use of drugs obtained from unregulated drug markets.
2. That the Department of Health, as the appropriate arm of the Victorian Government, implements a drug early warning network in the State of Victoria as a matter of urgency, to reduce the number of preventable deaths (and other lesser harms) associated with the use of drugs obtained from unregulated drug markets.

PUBLICATION OF FINDING

Pursuant to section 73(1) of the Act, unless otherwise ordered by a coroner, the findings, comments, and recommendations made following an inquest must be published on the Internet in accordance with rules. I make no such contrary order.

DISTRIBUTION OF FINDING

I direct that a copy of this finding be provided to:

Jordan's parents Andrew and Patricia

The Alfred Hospital c/o Alfred Health

Senior Constable Christine Johnstone, Coronial Investigator

Dr Dimitri Gerostamoulos, Head of Toxicology, Victorian Institute of Forensic Medicine

Dr Monica Barratt

The Honourable Martin Foley, Minister for Health

Professor Euan Wallace, Secretary, Victorian Department of Health

Chief Commissioner Shane Patton, Victoria Police.

Sione Crawford, Harm Reduction Victoria

Dr Anita Muñoz and Dr Hester Wilson, Royal Australian College of General Practitioners

Sam Biondo and David Taylor, Victorian Alcohol and Drug Association

Professor Gavin Reid, The University of Melbourne.

Will Tregoning, The Loop Australia

Signature:



Paresa Antoniadis Spanos

Coroner

Date: 31 March 2021

NOTE: Under section 83 of the *Coroners Act 2008* ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.
