IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2020 003434

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

Section 67 of the ***Coroners Act 2008***

Findings of:	Coroner Sarah Gebert
Deceased:	Mr S
Date of birth:	[redacted]
Date of death:	28 June 2020
Cause of death:	*Mixed drug toxicity (ethanol, etizolam, flubromazolam, cocaine)*
Place of death:	[redacted], East Melbourne, Victoria

INTRODUCTION

1. Mr S,[1] born on [redacted], was 20 years of age at the time of his death. He is survived by his mother [redacted] father [redacted], step-father [redacted] and sister [redacted].

2. He lived with his mother, step-father and sister and was known as [redacted] throughout his life.

3. On 28 June 2020, Mr S was sadly found deceased at an apartment in the Melbourne CBD.

THE CORONIAL INVESTIGATION

4. Mr S's death was reported to the Coroner as it fell within the definition of a reportable death in the *Coroners Act 2008* (**the Act**). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury.

5. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death, and surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

6. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.

7. Victoria Police assigned Senior Constable Ashleigh La Rocca (**SC La Rocca**) to be the Coroner's Investigator for the investigation of Mr S's death. The Coroner's Investigator conducted inquiries on my behalf, including taking statements from witnesses and compiling a coronial brief of evidence. The brief comprises statements from Mr S's mother, medical practitioners who treated Mr S, people who were present proximate to Mr S's death, a paramedic who attended the scene, the forensic pathologist who examined him, investigating police including SC La Rocca, as well as other relevant materials.

8. This finding draws on the totality of the coronial investigation into Mr S's death including evidence contained in the coronial brief. Whilst I have reviewed all the material, I will only

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[1] Referred to in this finding as "[redacted]", unless more formality is required.

refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[2]

Background

9. Mr S was born in Auckland, New Zealand and grew up in [redacted] His parents separated when he was 1 year old and he was raised by his mother and step-father, [redacted]

10. [redacted] described Mr S as a *fairly quiet boy* who was quite *cheeky.* In his early years, Mr S was a *very active* child and participated in sports such as rugby, basketball and soccer. He attended [redacted], a boarding school in Auckland, which had a reputation for being sports oriented, and his mother recalled he loved it there.

11. In 2014, Mr S and his mother, step-father and sister moved to Australia where they settled in Melbourne. The move was initially difficult for Mr S as he missed his father's family in Auckland with whom he had a strong relationship. He struggled to adjust during years 11 and 12 and his mother suspected this was because he was unhappy about the move to Australia. Following an incident with another student at school, [redacted] took Mr S to counselling. After that, he took up boxing to *release some stress* and he acknowledged that *he felt better.*

12. Upon commencing work in 2019 after completing school, [redacted] recalled that Mr S settled into Melbourne life better and *seemed happy*. She said he had a stable income and started making friends and attending church with his some of his father's family members, who also resided in Melbourne.

13. [redacted] recalled Mr S would spend his money on *smokes and alcohol,* among other things. She said he would *drink a six pack of beer most nights* and that *he smoked heavily.* Mr S had no history of mental health issues and family and friends did not raise concerns regarding his mental health. Medical records indicate Mr S had attended hospital only once following a fall and injury to his lower back in March 2020.

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[2] Subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

Circumstances in which the death occurred

14. At around 9.00pm on 27 June 2020, Mr S attended a short stay apartment in Melbourne CBD with four others, [redacted] [redacted], [redacted] and [redacted]. They drank heavily together until the early hours of the morning before falling asleep at different times and in different areas of the apartment.

15. [redacted] recalled he observed Mr S taking *prescription drugs* throughout the evening. At one point, he took the bottle of tablets from Mr S out of concern he was taking too many.

16. At approximately 8.00am on 28 June 2020, [redacted] awoke and found Mr S next to her asleep and snoring loudly. She left to sleep in the lounge area. At around 10.00am, [redacted] observed Mr S to still be sleeping and snoring. At around 12.20pm, [redacted] and [redacted] recalled they checked in on Mr S and noticed him breathing and foaming at the mouth. [redacted] observed Mr S to be *snoring funny,* and *by that [she] meant he was taking some short breaths, like a fish.* At around 12.24pm, she took a video of him snoring on her iPhone because she thought it was funny and she would show him later and they *would have a laugh about it*. She recalled they checked on him every few minutes and tried to wake him up but thought that he had just had too much to drink and so they let him rest.

17. A short time later, [redacted] recalled [redacted] contacted Mr S's family on the phone asking them to come pick him up. At approximately 1.46pm, [redacted] called emergency services and CPR was performed under the instruction of the call taker At approximately 1.51pm, paramedics attended the scene and were joined shortly after by police members, including the Coroner's Investigator SC La Rocca. Upon examination, paramedics observed Mr S to have an *absent pulse, no respiratory effort and fixed dilated pupils*. Due to this presentation, no resuscitation was attempted.

18. Police commenced an investigation and collected photographic evidence which formed part of the coronial brief. Police observed a number of empty bottles at the apartment. Police seized the bottle of alprazolam 2mg tablets as well as Mr S's and [redacted]'s phones. They were able to extract, among other things, a number of text messages which confirmed that Mr S intended on buying drugs on 20, 25 and 27 June 2020, had taken Xanax *for fun* on 26 June 2020 and intended on buying cocaine on 28 June 2020.

Identity of the deceased

19. On 28 June 2020, Mr S, born [redacted] was visually identified by his aunt [redacted].

20. Identity is not in dispute and requires no further investigation.

Medical cause of death

21. Forensic Pathologist Dr Sarah Parsons from the Victorian Institute of Forensic Medicine (**VIFM**) conducted an autopsy with conditions on 3 July 2020 and provided a written report of her findings dated 14 August 2020. The conditions of the autopsy were that it excluded Mr S's head, hair, face and hands.

22. Toxicological analysis of post-mortem samples identified the presence of a blood alcohol concentration (**BAC**) of ~0.05g/100mL, as well as the presence of etizolam[3] (~23ng/mL), flubromazolam[4] (~36ng/L), cocaine[5] (~0.03mg/L) cocaine metabolites[6] benzoylegonine (~0.2mg/L), ecgonine methyl ester (~0.05mg/L) and cocaethylene (~0.01mg/L). Alprazolam and flualprazolam were not detected.

23. Dr Parsons noted that *the concurrent use of alcohol and benzodiazepine can lead to increased synergistic CNS (sedation) and respiratory depression* and that *the combination of drugs may cause death in the absence of contributing factors.*

24. She further noted that *there was no natural disease that would have caused or contributed to death in this case.*

25. Dr Parsons provided an opinion that the medical cause of death was *Mixed drug toxicity (ethanol, etizolam, flubromazolam, cocaine).*

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[3] Etizolam is a thienotriazolodiazepine derivative with amnesic, anxiolytic, anticonvulsant, hypnotic, sedative and skeletal muscle relaxant effects (Baselt, 2017). A single oral 0.5 mg dose given to six men yielded an average peak plasma etizolam concentration of 0.0083 mg/L (8.3 ng/mL) at 0.9 h (Fracasso et al., 1991).

[4] Flubromazolam (8-bromo-6-(2-fluorphenyl)-1-methyl-4H-[1,2,4]triazolo[4,3-a]benzodiazepine) is a benzodiazepine derivative and has no established therapeutic use (Baselt, 2017). In one adult given a single oral 0.5 mg dose, the peak serum flubromazolam concentration was 8 ng/mL at 8 h (Huppertz et al., 2018).

[5] Cocaine is an alkaloid found in the leaves of Erythroxylon coca (2% by weight). It is an indirectly acting sympathomimetic and is abused for its stimulant properties (Baselt, 2017). Single dose studies of intranasal cocaine (as much as 100 mg), intravenous cocaine (as much as 64 mg), and smoking cocaine (as much as 100 mg) generally attained an average peak plasma concentrations of 0.2-0.4 mg/L.

[6] Cocaine is highly unstable and rapidly hydrolysed to inactive metabolites, benzoylecgonine and ecgonine methyl ester, that are further hydrolysed to ecgonine. Norcocaine and the isoforms of hydroxycocaine are active metabolites but produced at low concentrations. Anhydroecgonine methyl ester generated upon pyrolysis is a marker of smoking cocaine. Cocaethylene is formed by the transesterification of cocaine and ethanol when co-consumed.

26. I accept Dr Parsons' opinion.

CPU REVIEW AND FURTHER INVESTIGATIONS

27. As part of this investigation, I requested advice from the Coroners Prevention Unit (**CPU**) regarding whether there are any prevention opportunities arising from Mr S's death.[7]

Review of substances taken by Mr S

28. The CPU undertook a review of the substances that may have been taken by Mr S in the time proximate to his death. Photographs of the bottle found at the scene show that it was labelled as *alprazolam*. Text messages between Mr S and a friend indicate he had previously taken *xannie,* or Xanax, being a brand name of alprazolam. The post-mortem toxicology report confirmed that alprazolam was <u>not</u> detected in Mr S's blood.

29. Given this, the CPU undertook a further examination of the bottle of alprazolam seized. It was noted that on 29 June 2020 the Therapeutic Goods Administration released a Safety Advisory about counterfeit alprazolam 2mg tablets:

    Counterfeit Alprazolam 2mg tablets and Kalma 2 tablets may contain a range of undeclared substances in different combinations and dosages. Undeclared substances that may be present include etizolam, cyproheptadine, promethazine, Flubromazepam, amantadine and MMTMP.[8]

30. The advisory included information about how to tell the difference between genuine and counterfeit alprazolam 2mg tablets. The label of genuine alprazolam product carries the National Drug Code (**NDC**) *0378-4007-01*, whereas the counterfeit product carries the NDC *0487-3008-02*.

31. Photographs of the bottle found in the apartment show that it was labelled with the counterfeit NDC *0487-3008-02*.

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[7] The Coroners Prevention Unit (CPU) was established in 2008 to strengthen the prevention role of the coroner. The unit assists the Coroner with research in matters related to public health and safety and in relation to the formulation of prevention recommendations. The CPU also reviews medical care and treatment in cases referred by the coroner. The CPU is comprised of health professionals with training in a range of areas including medicine, nursing, public health and mental health.

[8] Therapeutic Goods Administration, "Counterfeit Alprazolam 2mg and Kalma 2 tablets", 29 June 2020, <https://www.tga.gov.au/alert/counterfeit-alprazolam-2mg-and-kalma-2-tablets>, accessed 11 November 2021.

Deaths involving NPS etizolam and flubromazolam in Victoria

32. Mr S died in a setting of mixed drug toxicity, where two of the contributing drugs were new psychoactive substance (**NPS**) benzodiazepines etizolam and flubromazolam. The available evidence suggests that he did not know he had ingested either of these drugs. Instead, he believed he was using alprazolam that he had purchased illicitly from the unregulated drug market.

33. Mr S was likely not the only person in Victoria to die after using counterfeit alprazolam in 2020. The CPU identified eight other overdose deaths during 2020 in Victoria which involved both etizolam and flubromazolam as contributing drugs, and in five of these there was direct or indirect evidence that the deceased person believed they were using alprazolam.

34. The CPU noted that the number of Victorian overdose deaths involving NPS benzodiazepines has risen quite suddenly in recent years: from one in 2018, to 10 in 2019, to 28 in 2020. This increase is mirrored in several other countries, and the Coroners Court of Victoria is concerned that it may be indicative of an emerging trend, rather than a transitory feature of drug-related harms in the state.

35. The experience from Scotland provides some indication of the potential for harm. In 2018, NPS benzodiazepines (primarily etizolam, and to a lesser extent diclazepam and phenazepam) were implicated in 571 deaths, accounting for 48.2% of the total 1187 drug related deaths registered in Scotland for that year.[9] These numbers had risen even higher by 2020, when NPS benzodiazepines were implicated in 879 (66%) of the 1339 drug-related deaths in Scotland for that year.[10]

HARM MINIMISATION AND NPS BENZODIAZEPINES

36. The rise of NPS benzodiazepine-involved overdose deaths is one manifestation of the broader emerging harms associated with novel psychoactive substance use in Victoria.

37. NPS include a huge range of drugs that are designed to mimic 'traditional' illegal drugs such as heroin, methamphetamine, MDMA, cocaine, cannabis and LSD. They also include non-approved forms of therapeutic psychoactive drugs such as benzodiazepines. Their effects are in many cases poorly understood if at all, though they are known to produce adverse and toxic effects that can result in death. New NPS are constantly being developed and produced for

[9] National Records of Scotland, Drug-related deaths in Scotland in 2018, Edinburgh: National Records of Scotland, 2019.
[10] National Records of Scotland, Drug-related deaths in Scotland in 2020, Edinburgh: National Records of Scotland, 2021.

unregulated drug markets; they are invariably cheaper and easier to manufacture than 'traditional' illegal drugs, and less risky to possess and distribute because legal and regulatory bodies are often unable to identify them.

38. People have always faced the risk that drugs obtained from unregulated markets are not what they expected: more potent, or adulterated, or even completely different to what was represented by the supplier. Where this occurs, the potential for harm including overdose and death is increased. The appearance of NPS in unregulated markets has substantially increased this risk, because NPS are often substituted for other drugs and represented as being other drugs. The rapid evolution of NPS means that suppliers may not even know what they are offering in the market; and the highly variable effects between NPS with respect to onset of action, potency, interactions with other drugs, and so on, mean that developing informed safe use practices is extremely difficult.

39. These risks were examined during Coroner Paresa Spanos' inquest into the deaths of five young men who died after consuming a particularly dangerous combination of two NPS from the phenethylamine class: 25C-NBOMe and 4-fluoroamphetamine. In each case, the deceased person did not know they were consuming NPS and instead believed they were consuming MDMA (or on one case psilocybin).

40. Assisted by expert evidence as well as submissions from multiple organisations involved in drug harm reduction, Coroner Spanos delivered findings on 31 March 2021[11] which included two recommendations aimed at addressing the risks inherent in a person using a substance when they cannot know with certainty what drug or drugs it contains.

41. Coroner Spanos' first recommendation was that the Victorian Department of Health implement a drug checking service (also known colloquially as a *pill testing* service) in Victoria. Such a service would enable a person who obtains a substance from unregulated markets to submit a sample, where it is analysed to establish what it contains; this information can then be used to inform harm reduction responses. Appropriate responses might include letting the person know what the substance contains and associated risks; counselling the person more generally about safe drug use; and using the insights from drug checking to inform local targeted responses to emerging drug harms.

[11] Finding into Death of Anson with Inquest, Coroners Court of Victoria, COR 2016 3441.

42. Coroner Spanos' second recommendation was that the Victorian Department of Health establish an early warning network to alert the public and disseminate information rapidly on substances of concern that have been identified circulating in unregulated drug markets. This could integrate information from a range of sources including drug checking services, and provide education in addition to alerts.

43. In a response dated 6 July 2021, Department of Health Secretary Prof Euan Wallace acknowledged but did not accept the recommendations. Prof Wallace indicated there was "no active plan for implementation of a drug checking service" in Victoria, and outlined work in drug surveillance and monitoring as an alternative to an early warning network.

44. While Coroner Spanos' recommendations were made in the context of an investigation into deaths involving NPS phenethylamines, they are entirely applicable to reducing harms associated with NPS benzodiazepine use.

45. A drug checking service would enable people to learn what NPS benzodiazepines and other drugs are contained within a substance, so they can make better-informed decisions about drug use. During this process, NPS benzodiazepines with higher risk profiles can be flagged, and contact with the service presents opportunities to deliver other harm reduction interventions.

45. In Scotland, where as noted above, NPS benzodiazepine-related harms are far more prevalent than Victoria, the Scottish Drug Deaths Taskforce is implementing a drug testing service for exactly this purpose: "*to anonymously inform those using benzodiazepines on the potency and content of their drugs so that they can make informed choices on their use, and also to use the service as a touchpoint to engage about wider issues of harm reduction and available treatment pathways*".

46. Similarly, a drug early warning network would be able to disseminate information and alert people to substances containing risky and potent NPS benzodiazepines. I note that in New South Wales, the Ministry of Health has published two recent alerts regarding NPS benzodiazepines.

47. The CPU considered that there was an urgent need to gain an understanding of what has driven the recent substantial increase in NPS benzodiazepine contribution to Victorian overdose deaths, and the information derived from a drug checking service could play an important role in this. It would inform an understanding of how NPS benzodiazepines circulate in Victoria's unregulated drug markets, including whether substances that contain NPS benzodiazepines also contain other drugs.

48. Other benefits of relevance in Victoria include:

> *The identification of NPS benzodiazepines in the drug supply can help raise alarms in the context of rapidly shifting drug markets, and offers supportive data in corroboration of community-based reports of clusters of atypical overdoses.*[12]

OVERDOSE RECOGNITION

49. Another prevention opportunity arising in this case was that those present with Mr S did not recognise and respond to the signs that he was experiencing a drug overdose. On the morning of 28 June 2020, multiple people at the apartment noted classic signs of central nervous system depressant overdose, including inability to be roused and obstructed breathing but emergency services were not called immediately.
50. Overdose recognition and response training is a core harm reduction intervention delivered to people who inject drugs, particularly heroin. It is also increasingly being delivered to people prescribed strong opioids to treat pain management and/or to treat opioid dependence.
51. The underlying principle is simple: the sooner a person is recognised to experience overdose, the sooner a response can be implemented to manage the person's airways and summon clinical assistance so the person does not sustain a hypoxic brain injury.

FINDINGS AND CONCLUSION

52. Pursuant to section 67(1) of the Act I make the following findings:

    a) the identity of the deceased was Mr S, born [redacted];

    b) the death occurred on 28 June 2020 at [redacted], East Melbourne, Victoria from *Mixed drug toxicity (ethanol, etizolam, flubromazolam, cocaine)*; and

    c) the death occurred in the circumstances described above.

53. Having considered all of the circumstances, I am satisfied that Mr S's death was the unintended consequence of the drugs he consumed.

[12] Laing MK, et al, "An outbreak of novel psychoactive substance benzodiazepines in the unregulated drug supply: Preliminary results from a community drug checking program using point-of-care and confirmatory methods", International Journal of Drug Policy, vol 93, no 3, February 2021: 103169.

COMMENTS

Pursuant to section 67(3) of the Act, I make the following comments connected with the death.

54. Mr S died in an apartment where friends and acquaintances were present, after a prolonged period of unconsciousness and obstructed breathing. Several of those present observed signs and symptoms that clearly indicated he had overdosed, however they did not appear to recognise the significance of these and therefore did not call emergency services until they noticed that he had stopped breathing.
55. I inferred from the circumstances that none of those present had undertaken training in overdose recognition and response. This life-saving training is now delivered through many drug and alcohol services to people who inject drugs as well as their families and loved ones; and is increasingly being regarded as an important harm reduction measure when prescribing strong opioids to any patient.
56. The underlying principle is simple and powerful: the sooner a person is recognised to experience overdose, the sooner an appropriate response can be implemented to prevent associated harm including death.
57. In these circumstances, the Victorian Department of Health could give consideration to how to reach people a broader group of people, such as Mr S and his friends and acquaintances, with overdose awareness and response training.

RECOMMENDATIONS

58. There is no reason to believe that recent fatal harms associated with NPS benzodiazepine use in Victoria are transitory; and the experience of Scotland shows the potential for these harms to grow.

59. I am satisfied that a drug checking service and drug early warning system are necessary elements of any strategy to reduce these harms.

60. I therefore recommend pursuant to section 72(2) of the Act:

    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 nonfatal harms) associated with the use of drugs obtained from unregulated drug markets.

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 non-fatal harms) associated with the use of drugs obtained from unregulated drug markets.

61. I convey my sincere condolences to Mr S's family for their loss and acknowledge the tragic circumstances in which the death occurred.

62. Pursuant to section 73(1B) of the Act, I order that this finding (in a redacted format) be published on the Coroners Court of Victoria website in accordance with the rules.

63. I direct that a copy of this finding be provided to the following:

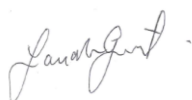
[redacted], Senior Next of Kin

[redacted], Senior Next of Kin

The Department of Health

Senior Constable Ashleigh La Rocca, Coroner's Investigator

Signature:



Coroner Sarah Gebert

Date: 29 April 2022

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.