Should pill testing be available to drug users in Australia?

What they said...

If people are concerned about substances, don't consume it... That's the way to stay out of hospital.' Victorian premier, Jacinta Allan, commenting on recent drugs-related hospitalisations.

'A drug-checking service would have at least created the opportunity... to receive tailored harm reduction information.'

Victorian coroner, John Cain, recommending pill testing following the drug-related death of a man in 2022.

The issue at a glance

On January 8, 2024, it was reported that nine people were hospitalised (eight in induced comas) following the Hardmission electronic music festival in Melbourne. They were suspected to be suffering MAMD overdoses.

On October 1, 2023, it was announced that two men had died, and ten others had been taken to hospital after attending the Knockout Outdoor festival in Sydney. The two deaths were believed to be the result of drug overdoses.

On February 23, 2023, it was announced that Queensland would operate two fixed-site drug-checking services and a mobile service for events such as music festivals and sporting events. A least some of these services were intended to open in the second half of 2023.

In July 2022, the ACT government launched Australia's first fixed-site health and drug checking service as a six-month pilot. The service has now been extended to December 2024.

The recent hospitalisations and deaths have provoked several organisations to call for pill testing trials in Victoria, New South Wales, and other Australian jurisdictions. Similar demands have been made previously, after earlier drug-related deaths incidents following festivals in New South Wales and Victoria.

State and territory governments have been reluctant to introduce pill testing either temporarily or at permanent fixed locations. The debate surrounding the harm minimization strategy continues.

Background

Most of the information below has been abbreviated from a Wikipedia entry titled 'Drug checking'. The full text can be accessed at \Box

Pill testing - definition

Drug checking or pill testing is a way to reduce the harm from drug consumption by allowing users to find out the content and purity of substances that they intend to consume. This enables users to make safer choices: to avoid more dangerous substances, to use smaller quantities, and to avoid dangerous combinations.

Drug checking initially focused on ecstasy (MDMA) users in electronic dance music events, but the services have broadened as drug use has become more complex. These developments have been strongly affected by local laws and culture, resulting in a diverse range of services, both for mobile services that attend events and festivals and fixed sites in town centres and entertainment districts.

People intending to take drugs provide a small sample to the testing service (often less than a single dose). Test results may be provided immediately, after a short waiting period, or later. Drug checking services use this time to discuss health risks and safe behaviour with the service users. The services also provide public health information about drug use, new psychoactive substances, and trends at a national level.

Countries offering pill testing

Drug checking services have developed over the last twenty-five years in twenty-one countries and are being considered in more, although attempts to implement them in some countries have been hindered by local laws. Thirteen European countries offer pill testing - the Netherlands, Austria, Switzerland, Spain, Portugal, France, Italy, Germany, Poland, Hungary, Belgium, Luxemburg, and Slovenia. Pill testing services are also

available in the United Kingdom, the United States, Mexico, Canada, Uruguay, Colombia, New Zealand and in Canberra and soon in Queensland in Australia.

History

The earliest reported drug checking activity began in Amsterdam in November 1970 with a group from the University Hospital of Amsterdam and samples obtained through psychiatrists working with people who used drugs.

The Dutch service is now formally the Drug Information and Monitoring System (DIMS) supported by the Ministry of Health, Welfare and Sport. Since 1992 the service has tested over 100,000 drug samples at a national network of twenty-three testing facilities. Service users receive results within a week via phone or email and the service publishes aggregated results describing what substances are in use.

Other European countries have led the introduction of drug checking services, with Asociación Hegoak Elkartea founded in Spain in 1994, TechnoPlus in France founded in 1995, and Modus Fiesta in Belgium in 1996. DanceSafe have operated in the USA since 1998 providing reagent testing and harm reduction advice.

More recent services include Neutravel founded in Italy in 2007, The Loop founded in the UK in 2013 and KnowYourStuffNZ in New Zealand in 2015 with Pill Testing Australia launching after a successful trial in 2018.

In November 2021 New Zealand became the first country to make drug checking fully legal after previously allowing this under temporary legislation. Other countries like the Netherlands allow drug checking but do not have legislation to protect the clients or testers, and the practice exists in a legal grey area in countries like the US and UK.

Pill testing in Australia

Australian Capital Territory (ACT)

On-site pill testing from a mobile facility was first offered in the ACT at the Groovin the Moo festival in 2018.

The same service was offered at the festival in 2019.

The service was discontinued in following years because the service providers were unable to find an insurer.

The ACT Government launched Australia's first fixed-site health and drug checking service, CanTEST, as a six-month pilot in July 2022. The service has now been extended to December 2024.
In 2023 on-site festival pill testing was again offered in the ACT and CanTEST extended its hours of operation to accommodate festival goers.

Queensland

In February 2023, the Queensland Health Minister, Yvette D'Ath, announced that her state would introduce pill testing at mobile and fixed sites following the success of trials in Canberra. As of January 17, 2024, no testing centre had been opened in Queensland.

No other Australian state or territory has announced plans to begin pill testing.

Internet information

On January 11, 2024, Sydney Criminal Lawyers published a comment supporting pill testing and quoting the views of the Law Association, and church leaders who share the same opinion. The opinion piece is titled 'Melbourne Mass Drug Overdose Provides the "Mandate" to Rollout Pill Testing'.

The full text can be accessed at

On January 11, 2024, The Daily Telegraph published an opinion piece by Louise Roberts titled 'Pill testing and assisted dying are threatening lives of our children'. Roberts argues against pill testing and assisted dying for those under 18 are measures that endanger young people.

The full text can be accessed at

On January 11, 2024, The Herald Sun published a news report that included an interview with a regular at music festivals who commented on the competitive drug taking culture that exists at these events.

The full text can be accessed at

On January 9, 2024, Sky News published a report titled 'Jacinta Allan issues message to Victorian festivalgoers about 'personal responsibility' as she responds to calls for pill testing'.

The article gives the views of the current Victorian premier, Jacinta Allan, and the previous premier, Daniel Andrews, against pill testing and those of the Victorian Greens and the secretary of the Victorian Ambulance Union who support it.

The full text can be accessed at

On December 30, 2023, RNZ New Zealand published a report titled "We've saved lives" - Drug checking service marks two years'. The report describes the success of the pill testing program operating in New Zealand.

The full text can be accessed at

On December 13, 2023, The Australian Pharmacist (the monthly journal of the Pharmaceutical Society of Australia) published an article titled 'Harm minimisation strategies for party season' which supports pill testing and recommends other harm minimization strategies drug takers could employ. The full text can be accessed at

On November 24, 2023, the Australian Alcohol and Drug Foundation updated its information on new strategies for dealing with drugs in Australia. It outlines pill testing processes and benefits and describes the principles of harm minimization. The post includes a link to its detailed advocacy document supporting pill testing.

The page can be accessed at

On October 26, 2023, Lamp (the magazine of the New South Wales Nurses and Midwives Association) published a report titled 'Nurses and midwives join chorus of health workers in calling for pilot drug checking program'. The article explains the Association's support of a harm minimization response to drugtaking.

The full text can be accessed at

On October 23, 2023, The Conversation published a comment by Monica Barratt, Vice Chancellor's Senior Research Fellow, Social Equity Research Centre and Digital Ethnography Research Centre, RMIT University and Isabelle Volpe, PhD Candidate, Drug Policy Modelling Program, UNSW Sydney, titled 'Novel drugs are leading to rising overdose deaths in Victoria - drug checking services could help'.

The article argues that the development of new recreational drugs makes pill testing more necessary. The full text can be accessed at

On October 23, 2023, Youth Projects issued a media release arguing in favour of pill testing as part of a suite of harm reduction measures that could minimize the impact of drugtaking.

The opinion piece is titled 'Drug testing proven to be more effective than not.'

The full text can be accessed at

On October 2, 2023, Sky News published a report titled "Not the answer": Renewed calls for pill testing to be introduced in NSW slammed after two die following music festival'. The article presents several negative responses to demands that pill testing be introduced in New South Wales.

The full text can be accessed at

On February 27, 2023, Medical Republic published a news report titled 'Pill testing evidence "finally being heard". The report details the support of the Australian Medical Association (AMA) and the Royal Australian College of General practitioners (RACGP) for the Queensland government's decision to allow pill testing in the state.

The full text of the article can be found at

On October 12, 2021, Junkee published a news report titled 'NSW Police Minister Still Says Pill Testing "Sends the Wrong Message". The article gives the views of the then New South Wales Police Minister, David Elliott, who is opposed to allowing pill testing in his state.

The full text can be accessed at

On September 24, 2019, The Sydney Morning Herald published a comment by Xavier Symons, a research associate at the Institute for Ethics & Society, University of Notre Dame. Titled "Drop the pretence": Festival goers are old enough to say no to drugs'. Symons argues that introducing pill testing infantalises young adults and accepts that they are unable to regulate their behaviour.

The full text can be accessed at

On July 15, 2019, 4BC Brisbane published comments by news commentator Alan Jones in which he explained his opposition to pill testing. The article is titled "Stop talking about it": Alan Jones blasts pill testing debate.'

The full text can be accessed at

On March 25, 2019, Pedestrian (a youth-focused online news and entertainment website) published a comment by Brad Esposito titled 'Just About Every Major Health Body in The Country Now Backs Pill Testing'. The comment lists all the major Australian health and medical bodies that support pill testing and argues that governments should accept their advice.

The full text can be accessed at

On March 22, 2019, the Australian Medical Association (AMA) announced its support for pill testing trials. In a media release titled 'AMA formally backs supervised drug testing trials', the AMA explained the basis on which it favours this measure.

The full text can be accessed at

On February 20, 2019, SBS News published position statements from Australian state governments, police and some health ministers expressing their respective positions on pill testing. All except for Queensland, are opposed. The item is titled 'Pill testing: "It gives people a false sense of security".

The full text can be accessed at

On February 2, 2019, The Catholic Weekly published a comment by Tony Wood titled 'Testing would still have failed my daughter'. The writer's daughter was 15 when she died of an ecstasy overdose at a music festival. Her father explains his opposition to pill testing.

The full text can be accessed at

On January 24, 2019, The Catholic Weekly published two opinion pieces under the headline 'Pill Testing: Arguments For and Against'. The item gives the views of Dr Alex Wodak, arguing in favour of pill testing and of Gary Christian, who is opposed.

The full text can be accessed at

Arguments in favour of making pill testing available in Australia

1. Drug use is a serious problem which has not been solved by prohibition and law enforcement

A December 2023 report into drug-related deaths at Australian music festivals reveals the seriousness of the problem. The report shows that in the twenty-year period between July 2000 and December 2021 there were 64 deaths. Drug toxicity was the primary cause, and the most-involved drug was ecstasy (MDMA). 73 percent of those who died were male and most of those who died were in their early twenties. The report concluded by stressing the need for pill testing and drug education. It stated, 'The findings suggest that drug-related deaths at music festivals in Australia typically involve young people using multiple illicit substances in combination with alcohol. Most are unintentional and could potentially be prevented through the implementation of a range of harm reduction strategies, including mobile medical care, drug checking services, and increased consumer education and awareness.'

Recent events have further highlighted the injuries and deaths occurring due to drugtaking at music festivals despite substantial police blitzes at these events. On October 1, 2023, it was reported that two men died, and ten other people were taken to hospital after attending Sydney music festivals over the preceding weekend. The deaths prompted calls for more harm reduction strategies, including the adoption of pill testing. New South Wales Greens MP, Cate Faerhmann, and drug support advocates claimed that there is now enough evidence to show pill testing reduces harm. Faerhmann stated, 'It's incredibly frustrating that governments don't seem to act unless there's a crisis but then all they've done after the crisis is commission

reports and then not act on the recommendations...We can't stop people taking drugs at music festivals, so let's focus on making everyone safer.' On January 2, 2024, there was a report of further hospitalisations, with four people being taken for treatment over drug-related issues after a Sydney dance held across the 2023 New Year's Eve weekend. On January 7, 2024, it was reported that eight people were in induced comas and another under hospital care following suspected drug overdoses at the Hardmission festival in Melbourne. Danny Hill of the Victorian Ambulance union stated, 'I think this highlights the dangers of some of the drugs that are passed around at rave parties and why there needs to be mechanisms to try and protect against them - it raises the issue of pill testing and pill checking.'

Some critics have argued that a law-enforcement approach to preventing drugtaking at music festivals may make the problem worse. It has been claimed that facing the risk of detection, some young people panic and ingest drugs which they were trying to hide or carry for others. Such behaviour increases the risk of overdosing or mixing potentially fatal combinations of drugs.

Numerous authorities have argued that a prohibition and law enforcement approach to drug taking in Australia has clearly not solved the problem. These authorities have called for a different approach involving more harm minimization, where Australia recognises that some of its population will always take dangerous drugs recreationally and works to reduce the risk to life and health this behaviour causes. Pill testing and drug education are part of this harm minimization strategy.

A report released in 2015 has demonstrated the failure of drug prohibition and the need for drug law reform in Australia. The report was written by Dr Alex Wodak, a physician who was Director of the Alcohol and Drug Service at St. Vincent's Hospital, Sydney, for thirty years, from 1982 to 2012. Dr Wodak is currently President of the Australian Drug Law Reform Foundation and was President of the International Harm Reduction Association from 1996 to 2004. In the 2015 report Dr Wodak claims, 'During the last 50 years, the drug market in Australia and other countries has continued to expand and become more dangerous. The production and consumption of drugs, the number of drug types and the hazardousness of drugs available have all increased. Prices fell, purity often increased, and an overwhelming majority of drug users continued to report that obtaining illicit drugs was 'easy' or 'very easy'. Although the aim of our drug laws was to protect the health and well-being of Australians, deaths, disease, property crime, violence and corruption have increased. For example, the rate of heroin overdose deaths in Australia increased 55-fold between 1964 and 1997.'

Supporters of a harm minimization approach argue that it has been more successful and should either replace a prohibition and law enforcement approach or be used in conjunction with it. Dr Wodak has stressed the comparative success of a harm minimization strategy. In his 2015 report, Dr Wodak focused on the success of harm minimization when applied to heroin use in Australia. He stated, 'In contrast to the poor record of criminal justice measures, health and social interventions have often had impressive results. Harm reduction measures such as needle and syringe programs, strenuously opposed initially, averted the spread of HIV among and from people who inject drugs, thereby protecting the community. \$1 spent on needle and syringe programs saved an estimated \$4 of healthcare costs and \$27 overall, while \$1 spent on methadone treatment saved an estimated \$7.6 The incidence of hepatitis C has declined substantially in Australia in recent years following expansion and improvement of the needle and syringe and drug treatment systems.'

2. Pill testing services reduce the risk of drug users taking adulterated or too-potent drugs

Studies have shown that the pill adulteration and potency warnings that pill testing services provide have led many potential drug users to discard the products they were going to take. Supporters of pill testing claim that this will have protected the health and possibly saved the lives of these drug users.

The selling of falsely labelled illicit drugs is a significant problem, with users potentially consuming dangerous drug combinations or drugs at higher levels of potency than they believed. Recent pill testing trials at the Groovin the Moo Festival in Canberra and a United Kingdom festival found that 20-43 percent of drugs tested were not what festival attendees believed they had purchased, placing them at risk of consuming contaminated or mislabeled products. Similar results have occurred in North America. A Canadian survey of samples of illegal drugs tested between April 2018 and August 2019 found that 13 percent of opioid-containing samples contained at least one other psychoactive substance. The same survey found that 11 percent of methamphetamine-containing samples contained additional psychoactive substances. Overseas testing has also revealed that in addition to containing other active adulterants, some illegally purchased

drugs contained none of the substance the purchaser believed s/he had bought. Of the drugs tested at a British Columbia festival in 2018, 11 percent of the supposed ecstasy samples submitted for testing contained no MDMA. Of the cocaine samples submitted for testing 8 percent contained none of the expected drug. The widespread misrepresentation of illegally sold drugs has led many spokespeople to call for the general introduction of pill testing.

Some of the adulterants being used are known to be lethal. In 2007, a 20-year-old Sydney dance teacher died after dropping two caps of what she believed to be MDMA but which, unknown to her, contained the adulterant para-Methoxyamphetamine, or PMA. In 2017, three people at Melbourne's Revolver nightclub were killed by what was initially described as 'a bad batch of MDMA', but which was later revealed to be 'a cocktail of illicit substances' - including a lethal strain of the powerful hallucinogen N-benzyl Methoxy, or NBOMe.

Numerous studies have shown that when warned that the drugs they had purchased were falsely labeled or mixed with other substances many buyers would often discard their purchase. A study published in the United Kingdom in December 2018 found that 20 percent of users disposed of substances when a drug testing service revealed them to be other than what the buyer had intended to purchase. Australian data from the same period shows a similar pattern among Australians who used illicit recreational drugs. The pilot pill testing service, set up at the Canberra Groovin' the Moo music festival in April 2018, found that 35 percent of patrons who had their drug tested indicated that they would change their behaviour as a result (including 18 percent who indicated they would not consume the drug, and 12 percent who would consume less). The 2019 pill testing trial at Moovin the Groove was even more successful, with everyone who was told their pills contained other substances, safely discarding their drugs. The results of the first fixed-site pill testing centre set up in Canberra showed that in December 2022, after six months of operation, 10 percent of drugs were immediately discarded. The data does not indicate how many of the remaining 90 percent had been found not to be contaminated or to be the product the purchaser believed it to be. After a year of operation, the discard rate was higher with 33 percent reporting they would not use the drug when testing showed it did not meet their expectations.

There is also data to suggest that as drug using populations become more informed, their readiness to discard suspect substances may increase. A 2019 survey of 719 regular participants in the Berlin party scene found that if a test revealed the sample to contain a high amount of active ingredient, 91 percent of those surveyed indicated they would take less of the substance than usual. Two-thirds (66 percent) said they would discard the sample if it contained an unexpected/unwanted agent along with the intended substance. If the sample contained only unexpected/unwanted substances and not the intended substance at all, 93 percent stated they would throw it away. Those conducting the survey concluded drug checking or pill testing as a harm reduction tool was highly accepted in the scene, and most participants stated they would align their consumption behaviour to accord with test results.

3. Pill-testing services do not suggest that drugs are safe

Supporters of pill testing argue that education is at the centre of the service. They claim that the purpose of pill testing is to change drug takers behaviour, up to and including to discourage them from taking any drug at all, by explaining the risks associated with drugtaking. Those who have established and continue to run pill testing services claim that they never suggest that any drug is safe and actively discourage those who visit them from thinking this.

The whole focus of the pill testing process is to warn and explain. David Caldicott is the Clinical Lead for Pill Testing Australia and for CanTEST (the group which manages the administration of pill testing in the Australian Capital Territory). Dr Caldicott notes that when clients visit a Canberra pill-testing service, they are first spoken to by the post-doctoral chemist who will conduct the test. The chemist will explain how the drug is manufactured. Caldicott has noted, 'The first thing we say is that if you want to stay safe today from any harms associated with drug consumption, you shouldn't use any drugs today.' The test results are then passed on to a doctor who explains to the festivalgoer what medical issues could arise from taking the substance. Caldicott, who, as a doctor, has often performed this role, notes 'That will be my opportunity ... to say to the punter, "that's not great then is it?" ... So it may be that they take less of it, or they abandon it.' Dr Caldicott claims research from Europe shows that after drug testing, many people did something other than consume their whole pill. \square

After festivalgoers have spoken to the chemist and the doctor, and before they decide whether they want to keep their pill, they will speak to a harm reduction worker. Jessica Murray, from peer-led harm reduction organisation DanceWize, is a harm reduction worker. Murray states, 'The job of harm reduction workers is to explain why taking the drug - no matter how pure it is - is a bad idea... We say, "this is very strong and it's highly likely to lead to a very bad time for you and you may get sent to hospital, please don't do this to your parents and friends." Murray has noted that workers will explain how factors like extreme heat, alcohol consumption and other drugs like antidepressants can have an impact on their reaction to substances like MDMA. Murray states, 'We get people to think about, deeply, what it is they are trying to achieve by taking this drug or being at this festival, and why it is they think it's a good idea.' Gino Vumbaca, the president of Harm Reduction Australia, has summed up the whole process, 'We'll let you know what actually you're going to consume, but more importantly we'll talk to you about what the risks and harms are associated with that, and just as importantly what to do if there's an adverse outcome - if there's a problem, what to do to get help, and the importance of getting help immediately.'

An additional part of the process is that the drug user is required to sign a waiver. This is intended to free the pill testing service of legal liability should the drug taker suffer injury or death because of consuming the drug that is tested. However, it is a further guarantee that the drug taker is aware that the substance s/he consumes is not safe. The drug user signs a document which explicitly states that s/he was not advised that the substance being tested is safe.

Pill testing services are intended to function as sources of education and information for drug users, helping them to make the best and safest decisions possible. ANU Associate Professor Anna Olsen, who led an evaluation of CanTest's first six months of operation, stated, 'CanTEST provides critical information about drug contents to service users and the wider community. The evaluation shows that 70 per cent of users had never discussed their drug use with a health professional before visiting CanTEST. The service is reaching a unique group of people who use drugs.' Professor Olsen's review noted other ways in which CanTEST sought to promote the safety of drug users. The evaluation noted that CanTEST delivered more than 1,000 health interventions to service users in the first six months of operation, including harm reduction, overdose prevention, mental health counselling and other general health advice.

4. Pill testing services have not led to an increase in drugtaking

Defenders of pill testing services argue that they do not lead to an increase in the consumption of illicit drugs by encouraging their use.

Public health and addiction and drug use specialists argue that no studies have linked pill testing to promoting and increasing drug use. Dr David Caldicott, the Clinical Lead for Pill Testing Australia and Professor Alison Ritter, Director of the Drug Policy Modelling Program at the University of New South Wales claim that there is no research or evidence to support the view that pill testing increases drug use. Both say pill testing is about targeting people who already have the intention of consuming illicit substances and helping to reduce their risk. The Alcohol and Drug Foundation has also stated its support for this view and states that 'drug checking does not promote illicit drug taking, and people who choose to get their substances tested have already purchased them with the intention to use them'. Alison Ritter additionally stated, 'There is no evidence showing increased use of drugs with the presence of pill testing, and strong evidence of reduced consumption in association with pill testing.' Finally, researchers and academics at the University of Technology Sydney's Centre for Forensic Science have all endorsed the claim, 'There's...no evidence to suggest that pill testing leads to a higher prevalence of drug use. The opposite is actually true - educating young people about the potential dangers of certain drugs makes them less inclined to take them.'

Overseas studies have also demonstrated that pill testing services do not lead to increased illicit drug taking. A 2011 study in Zurich Switzerland examined the effects of drug checking, a practice usually referred to in Australia as pill testing. Streetwork, the youth advisory service of the city of Zurich, has provided onsite and stationary Drug Checking facilities since 2001 and 2006, respectively. The 2011 study used surveys completed by over 7,000 participants to determine the impact that drug testing had on their behaviour, including their readiness to begin drugtaking and to increase their drug use. The study concluded, 'The results indicate that a Drug Checking service combined with a consultation session does not, as some would claim, encourage consumption. As shown, there was no increase either in the frequency of consumption of most party drugs or in polydrug use over the years.' The authors of the study noted that the benefits resulting from drug testing combined with the absence of negative consequences should encourage setting up more drug

testing facilities. They stated, 'The knowledge developed within the present evaluation will hopefully encourage other party metropolises [cities] to create new and improved services or to redefine existing services based on a realistic and acceptance-based drug prevention approach embedded within an overall local concept.'

Recent Australian research has also indicated that pill testing does not result in increased drug use. A 2021 study, led by Edith Cowan researcher Sherri Murphy, surveyed the behaviour of 247 people attending a Western Australian music festival. The survey results indicated that access to pill testing did not increase the likelihood that those questioned would either increase their drug use or begin using drugs. Murphy stated, 'My results indicate that for both ecstasy-naïve and ecstasy-initiated individuals, a pill testing service is unlikely to increase an individual's intention to use ecstasy.

It has been argued that rather than harm minimization approaches, such as pill testing, increasing drug use and deaths, the reverse may be the case. Critics of Australia's prohibitionist approach argue that it has allowed recreational drug use to boom. Ugur Nedim and Zeb Holmes, writing for Sydney Criminal Lawyers, have stated, 'According to the 2014 UN World Drugs Report, Australians have the highest rate of MDMA ('ecstasy') consumption in the world despite our 'zero tolerance' approach to illicit drug use. In 2015, it was reported that 8 percent of Australians aged 20 to 29 had used ecstasy in the preceding 12 months.'

5. Pill testing services alert authorities to new trends in drug supply, distribution, and use

Supporters of pill testing argue that the results obtained from sample testing indicate the type of illicit drugs being supplied and used in Australia. This is valuable information which can be given to health authorities to enable them to treat people suffering the adverse effects of a particular drug or drug combination. The same information can also be supplied to police and customs to assist in their work detecting drug smugglers and local manufacturers. Advocates argue that pill testing can monitor drug markets for new or particularly dangerous substances and contribute to an early warning system for dangerous substances.

In 2015, Dr Andrew Groves, a lecturer in Criminology in Deakin's School of Humanities and Social Sciences, explained the importance of identifying and tracking drug use. Grove noted that monitoring systems could warn of changes in the drug market, identifying the drugs in use by which social groups. This information is important to health authorities trying to assist users and it is important to police trying to locate drug suppliers. In Australia this monitoring is done through the Ecstasy and Related Drugs Reporting System (EDRS), which compares interviews with drug users and key professionals to map trends in drug use, price, purity, and availability. This data is used primarily by health care providers. Information used by law enforcement officers typically comes from the Illicit Drug Reporting System (IDRS); however, the two systems contain the same data from the same sources. Drug users are most frequently interviewed through police or support services such as medical centres and doctors. The EDRS finds it difficult to monitor users of 'party drugs' such as ecstasy. Party drug users are a diverse group of consumers, many of whom are educated, socially and economically stable and rarely interact with criminal justice, treatment, or support services. They often regard themselves as only 'occasional' users and are outside the usual data collection pools. Pill testing allows for the substances being taken by party drug users to be tested at the sites where they are being used.

Supporters of pill testing argue that it can be particularly valuable in alerting authorities when new drugs enter the country or arrive within a particular location. It can also warn authorities when a dangerously potent or contaminated drug is circulating within a particular region. Dr Groves has stated, 'On-site testing has the capacity to act as an early warning system to identify the emergence of new drugs more quickly than retrospective analysis such as waste-water testing.' The value of pill testing as an early warning system was demonstrated on December 31, 2022, when the ACT government released a 'red alert' over a drug detected through Canberra's fixed-site pill testing centre. The pills had been falsely sold as oxycodone. In fact, they contained metonitazine, a potentially lethal synthetic opioid linked to fatal drug overdoses in New Zealand and the United States. The counterfeit pills were detected after they were submitted for testing at the free pill testing service CanTEST. Stephanie Stephens, acting head of Directions Health Services, said it is positive that the substance was detected before it caused any deaths from being ingested. Stephens noted that this detection indicated another important service that pill testing centres could provide and warned there will need to be careful monitoring in all jurisdictions in Australia, particularly with the party and music festival season upon us when unmarked tablets could be in higher circulation.

Dr David Caldicott, the Clinical Lead for Pill Testing Australia, has also stressed the value of the monitoring system that pill testing can help to provide. Dr Caldicott has stated, 'The combination of onsite testing, fixed site testing and monitoring provides the greatest coverage of drug intelligence, much in the same way that different levels of flu-tracking allow us the best analysis of what lies in store and is circulating. [Different levels of pill-testing] allow services to detect and issue warnings about harmful substances that are circulating. The United States Center for Disease Control (CDC) has recommended drug checking as a way of monitoring the fentanyl crisis in that country. Any future CDC in Australia should strongly consider incorporating such surveillance in its remit.'

Arguments against making pill testing available in Australia

1. Pill testing will not prevent many drug-related deaths

Some opponents of introducing pill testing services in Australia argue that these are not necessary to prevent many drug-related deaths, especially those associated with ecstasy (MDMA) use. Drug testing is used to gauge the potency and possible contamination of a drug. Critics claim that neither of these factors is significant in deaths attributed to ecstasy.

Ecstasy is a widely used drug associated with an increasing number of deaths. It is one of the more commonly used illicit substances in Australia, particularly among young adults. It is very commonly taken at music festivals. The most recent National Drug Strategy Household Survey (2019) found that ecstasy was the third most used illicit drug in Australia after cannabis and cocaine, with use reported by 3 percent of Australians aged 14 and older in the previous 12 months. According to the 2019 Global Drug Survey, Australia has the second highest rate of MDMA use in the world, after the Netherlands. Last the second highest rate of MDMA use in the world, after the Netherlands. claimed that ecstasy use is increasing in Australia. In 2023, ecstasy and cannabis were the most reported drugs of choice for participants in the Ecstasy and Related Drugs Reporting System (EDRS). When the past 6 months were compared with the previous year, Ecstasy use was reported by 95 percent of those surveyed, an increase from 88 percent in 2022. There were 392 MDMA-related deaths in Australia between 2000 and 2018. Death rates increased significantly between 2001 and 2007, declined between 2008 and 2010, and increased again between 2011 and 2016 consistent with international supply trends. C Deaths occurred predominantly among males in their mid-twenties, with females likely to be significantly younger. Most incidents occurred in private locations. It has further been noted that this number of fatalities is likely to be an understatement. National Drug and Alcohol Research Council information officer, Paul Dillon, has stated, 'It's very difficult to know the numbers because people often die a number of days after from complications, so MDMA does not appear on the death certificate.' It is also claimed that the non-lethal effects of MDMA are underacknowledged. Mr Dillon has stated, 'There's a range of other consequences such as psychological problems. I think people need to know there are risks when taking any drug - it does not matter whether they're legal or illegal.'

Despite the risks represented by ecstasy use, critics of establishing permanent pill testing centres argue that this strategy is unlikely to reduce ecstasy-related deaths. Commentators have noted that those who die because of taking MDMA do not do so because of overdosing; therefore, pill-testing to determine ecstasy concentration per table would not have prevented these deaths. The medical literature notes that users can take massive doses of MDMA and live. At the same time, users die with less than one eighth the MDMA blood levels of the average Australian fatality (0.85mg/litre) making pill testing purity assessments of limited value in reducing MDMA fatalities.

In a submission made to the Northern Territory Legislative Assembly in February 2019, Drug-Free Australia claimed, 'Many deaths can be attributed to something akin to an allergic reaction, where four friends can ingest identical MDMA pills purchased from the same dealer but only one die. This was exactly the case with...Australia's first MDMA death in 1995. Some have correctly likened ecstasy use to playing Russian roulette...The argument that pill testing personnel can enhance safety, advising users to take half or quarter a pill where MDMA purity is high, may be as safe as doctors telling those suffering anaphylactic shock from a peanut allergy that they should eat quarter instead of the whole.'

It has further been claimed that though MDMA-related deaths can occur because of other toxic drugs being mixed with, or fraudulently sold as ecstasy, this is not commonly the case. In an Australian study examining ecstasy-related deaths between 2001 and 2005, 82 percent of the 82 deaths were attributed to MDMA. The other 18 percent were 'primarily due to pathological events/disease or injury, with MDMA a significant

contributing condition.' The conclusion that Drug Free Australia has drawn from this, and other data is that 'There are no mysteries about party pill deaths in Australia. Almost all, according to the many coroners reports, are from ecstasy itself.' Drug Free Australia uses the claimed primacy of MDMA in causing these deaths as a justification for arguing that pill testing is not needed to determine what other potentially harmful substances recreational drug users may be taking along with the ecstasy they consume.

2. Pill testing is not completely accurate or sufficiently comprehensive

Those opposed to the establishment of pill testing services also argue that the testing methods used are not always accurate and are not sufficiently comprehensive, that is, they are not able to detect all the potentially harmful substances in the drugs submitted to them.

Critics of setting up pill testing services are skeptical about the value of the results given by the tests that are performed. Three types of testing have been supplied at the ACT fixed-site pill-testing clinic during its sixmonth trial operation. The first type of test uses Fourier-transform infrared spectroscopy (FTIR). Different frequencies of infrared light are passed through a very small drug sample. Because different substances absorb different light frequencies, analysts can use this absorption data to determine the chemical composition of the sample being tested. The FTIR is commonly used for testing at music festivals because it is portable and supplies results quickly. The other form of testing used in the Canberra fixed-site trial is an Ultra-Performance Liquid Chromatography-Photodiode Array (UPLC-PDA) analysis. The UPLC-PDA can test the purity and identity of a specified ten drugs in ten minutes. The service also uses fentanyl test strips (FTS) to look for fentanyl derivatives. FTIR pill testing is the primary form of testing supplies at festivals and other temporary sites.

Several concerns have been raised about the adequacy of FTIR pill testing. Toxicologist, Dr John Lewis, at the University of Technology, Sydney, has explained, 'You get a scraping of the pill and you put the grains onto a plate, or a diamond and the infrared beam passes through it and produces a spectrum. That spectrum is analysed mathematically and if it matches, let's say ecstasy, it will give you a probability. It might be 80 or 90 percent. However, data from Europe - where FTIR has been used for the purposes of pill testing for several years - has highlighted some limitations.' Forensic toxicologist and marketing director at Safework laboratories, Andrew Leib, has similarly stated, 'FTIR is not very good at detecting poly-drug mixtures, so once you get more than two or three drugs in your sample - which is extremely common - you get too much noise, and it can't identify the drugs very well. The other thing is it doesn't tell us anything about the dose, and that's critical, certainly in the harm-minimisation aspect of some of these pills.

And the final point is, a lot of the newer drugs feature much more dangerous compounds, new psychoactive substances, or NPS. There is a real zoo of these things out there, literally hundreds that have only been recorded in the last few years. The newer and the more exotic these compounds are, the less likely FTIR is to be able to detect them, because it relies on a library match - if it hasn't been told what some of these new drugs look like, it just won't see them.'

Concern has also been raised that FTIR's inability to gauge the potency of a drug could lead to overdosing in a variety of circumstances. Dr Lewis has argued that when you are comparing commercially produced and regulated drugs with the erratic manufacturing practices of illicit drug producers, FTIR's inability to gauge potency is a problem. He has explained, 'If you get a pill made in Bankstown or Guancheng ...What if this becomes a very slow release because of all the muck that's been put into the pill? The person says, "I've bought a dud, it's not working", and they take another one. By that time, the first one's dissolved, and so they've actually overdosed.'

There has also been some concern about the limitations of Ultra-Performance Liquid Chromatography-Photodiode Array (UPLC-PDA) analysis. The ACT pill testing centre describes the UPLC-PDA as 'the real pill testing fire power' as it can detect key components of a drug and contaminants and indicate the proportion of each within a compound. However, the test centre admits that this testing also has limits and will later be upgraded to incorporate mass spectrometry (MS) to improve the pill testing centre's ability to identify sample contaminants occurring at lower proportions of the drug samples.

3. Pill testing offers a false sense of security

Critics of pill testing argue that the process offers a false sense of security, encouraging drug takers to believe that inherently dangerous substances can be consumed safely.

Opponents of pill testing stress the inevitable danger associated with taking illicit drugs, either singly or in combination, and argue against pill testing because they believe it masks this danger. In a statement made in February 2019, the then Victorian Deputy Police Commissioner, Rick Nugent, stated, 'Victoria Police is not supportive of pill testing. There is no such thing as a safe illicit drug. An identical drug can affect different people in different ways. Illicit drugs affect people different depending on the purity of the drug, tolerance level, or medical conditions that people may or may not know they have. The majority of overdoses at music festivals are caused by poly drug use - that is multiple drugs consumed by the person. Pill testing does not prevent this... Drugs are manufactured by criminals with absolutely no regard for the safety of the people who take them.' The same view has been expressed by a former New South Wales Health Minister, Brad Hazzard, who in 2019 stated, 'There is no such thing as a safe illegal drug. Pill testing or "drug checking" may test for the presence of particular compounds in a pill or capsule - it does not indicate that a pill or capsule is safe to consume. It gives people a false sense of security that may leave them brain damaged or physically disabled.'

Critics of pill testing argue that a pill test which confirms to a potential user that the substance s/he has purchased is chemically what they believed it to be can act as an assurance that it is safe to consume. This point has been made by Paul Spinks, a MICA paramedic, trauma counsellor and mental health advocate. Spinks states, 'Those who have resisted using drugs out of the fear of ... not being certain of what was contained within them will now have a government endorsed message that these drugs are safe to use and that there's nothing to fear.' Support for Spinks' concern can be found in a 2003 study of the effect of pill testing on United States college students who had not yet tried illicit drugs. In a survey of non-drug users, 19 per cent reported that they might be more likely to try ecstasy if pill testing were available. The study concluded 'it gives an artificial shine of safety to a group of diverse drugs that remain both illicit and potentially harmful'.

Spinks also argues that if a test demonstrates that the product they have bought was as advertised by the seller, who will act as an endorsement of the safety of other drugs supplied by the same seller. Spinks writes, Once their supply has been tested why would the same source for the drugs not be OK to use elsewhere?' Critics of a drug user feeling confident in the quality of already tested drugs note that drug suppliers do not supply a consistently reliable product. An American ABC news report published in February 2023 noted, 'Legal pharmaceutical products are manufactured with safeguards in place to ensure quality control. Drug dealers may not have professional chemistry skills and may not have quality control tests...' Opponents of pill testing argue that because one test of one pill from one batch sold by a supplier was 'safe', this does not mean that other pills from the same supplier will be.

Recent concerns about pill-tests giving drug users a false sense of security have been raised about fentanyl test strips. Fentanyl is a pharmaceutical opioid that is prescribed for the management of severe pain. It is about 80 to 100 times stronger than morphine. The ACT testing centre uses fentanyl test strips to help guard against this growing threat; however, critics are concerned the testing procedure is not adequate. Fentanyl test strips have been found to give false negative readings. In a 2017 Canadian trial of 70 fentanyl test strips 63 accurately identified that opioids were present; however, in three samples, the fentanyl test strips gave false negatives, indicating no opioids present, when the lab tests indicated they were. Health Canada advised that the risk of a false negative is particularly concerning, because it could 'lead to a false sense of security which may result in overdose or death.' Accuracy issues remained in 2020. A Brown University study found of the 210 samples tested using fentanyl strips, the strips gave false negative readings on 3.7 percent of tests. Critics note the risk of false readings and overdose remains as indicated by Canada Health's warning.

4. Pill testing appears to give government sanction to drugtaking and so normalises the behaviour Opponents of pill testing believe that the amnesty from arrest or having drugs confiscated that exists at pill testing services contradicts the illegality of the drugs being tested. Critics claim that these tests undermine the laws prohibiting drug use. They further note that governments who establish pill testing are acting against laws they have helped to enact and are normalising drugtaking.

Critics of governments establishing pill testing argue this would reduce the public perception that drug taking is illegal and begin to normalise the practice. They claim that once drug taking begins to be normalised, its frequency will increase. The 2016 National Drug Strategy Household Survey found that 31.1 percent of Australians who did not use illicit drugs refrained because the substances were illegal. Sociologists and criminologist argue that laws shape people's behaviour either because they fear punishment if detected or

because they recognise that the law demonstrates that the outlawed behaviour is harmful in some way. A 2021 British study explaining how laws shaped people's perception of acceptable behaviour stated, 'Laws not only affect behaviour due to changes in material payoffs [rewards or punishments], but they may also change the perception individuals have of social norms, either by shifting them directly or by providing information on these norms.'

Several commentators have argued that the government would be sending mixed messages about the seriousness of the law if it allowed pill testing services to be established. Sky News commentator Alan Jones, congratulating New South Wales on not approving pill testing, has stated, 'It surely is beyond ludicrous to be saying to young people, drug taking is illegal, but we will test your illegal product, with taxpayers' money, to tell you whether you are likely to die or not... The NSW Premier, Gladys Berejiklian has, to her great credit... held her line.'

3AW radio commentator, Tom Elliott, has similarly stressed that governments must continue to adhere to their states' laws. Elliott stated, 'The law makes it very clear: party drugs, MDMA, ecstasy, all those sorts of things... they are illegal. The idea that there are safe illegal drugs and unsafe illegal drugs is not what our legal system says.' Finally, an editorial published in The Sunday Telegraph in January 2019 stated, 'There is a real sense of desperation in the notion that government should pay for a test to make sure the illegal drugs a teenager is about to take are actually an illegal substance and not washing powder ... the notion that a government which has clear laws about drug usage designed to keep people safe would offer teenagers a quick, free test to ensure the pills that they just bought were what the dealer said they were wouldn't pass the pub test.'

Government ministers past and present have also stated their belief that governments would be failing in their responsibility to send the right message to the electorate if they established pill testing services. Former New South Wales deputy premier, Tony Grant, has indicated that governments cannot consistently uphold the law if they allow pill testing. Grant stated, 'What you're proposing there is a government regime that is asking for taxpayer's money to support a drug dealer's illegal business enterprise.' Former New South Wales Police Minister David Elliott has stated, 'Pill testing ... sends the wrong message to young people about the consumption of illegal substances. All illicit substances carry the real risk of harming, or ultimately killing, the person who takes it. We have not forgotten the tragic drug-related deaths of so many young people only a couple of years ago.' In 2021, Queensland LNP deputy leader Tim Mander stated, 'I strongly support education - what we have to do is convince our young people that taking drugs is not the way to have a great time at concerts.' However, regarding government-endorsed pill testing centres, he argued, 'Drugs are illegal for a reason - they are dangerous, they can kill, and they do kill.'

5. There is no reliable evidence that pill testing has reduced drug consumption or mortality rates Critics of pill testing argue that it is being offered to the public without reliable evidence of its effectiveness.

Several recent Australian studies and literature reviews have failed to find substantial evidence demonstrating the effectiveness of pill testing. A study conducted by Ian and Russ Scott that was published in Internal Medicine Journal in January 2020 concluded, 'Recent pill-related deaths of young people at music festivals in Australia have led to a concerted push for on-site pill testing as a means for preventing such events. However, whether pill testing (also termed 'safety checking') is an effective harm reduction strategy remains uncertain. This narrative review concludes that pill testing currently lacks evidence of efficacy sufficient to justify publicly funded national roll-out of on-site pill testing programs.' A 2022 in-the-field evaluation of the effectiveness of pill testing noted the positivity of participants' responses, however, it also noted the difficulty of determining the reliability of their responses.

One of the key areas where critics detect a lack of evidence is in pill testing leading to reduced drug use. A comment posted by the Sydney-based Marsden Law Group states, 'Whilst pill testing is common in Western Europe, its effectiveness in saving lives is still questionable. There is very little data to show that pill testing ultimately leads to a reduction in consumption rates. The only proven benefit of pill testing is that the analysis of drugs allows the Government to detect bad batches of drugs and issue public health warnings. Nevertheless, there is still no evidence to demonstrate that pill testing leads to people no longer taking pills. Whilst public health warnings may persuade many people to not consume pills from an identified bad batch, there is no evidence to illustrate that they will not simply purchase new pills, those that do not originate from a bad batch, and consume them.' Andrew Groves 2018 study noted, 'Like most debates about policy reform, a key question in the rationale for pill testing is whether it "works". The literature is complicated,

and, to date, no studies have fully tested in a controlled way, whether pill testing reduces harms. Most evaluations concern attitudinal change (e.g., what people would do), legal issues and the integrity of various analytic procedures, with others describing program features or contextually relevant praxis, so... a large, multi-site systematic review of testing practices is needed.'

There is also limited evidence that pill testing significantly improves health outcomes or reduces mortality. An overview of drug testing effectiveness produced by the Australian National Centre for Education and Training on Addiction noted, 'Evidence for the effectiveness of drug testing to improve safety or reduce risk of harm is limited. Few quality evaluations of drug testing programs have been undertaken...' Some critics have noted that it would be almost impossible to assess whether pill testing had reduced the risk of mortality. They claim that even if pill testing were to be associated with an apparent drop in user deaths, this would need to be balanced against other factors. One such factor is the possibility that pill testing has led to greater drug use, thus the benefit of pill content warnings would have to be balanced against the harm of increased use. This point has been made by Drug Free Australia who have stated, 'The purported "safety" of pill testing would be expected to broaden the pool of users, thus increasing deaths, matching any decreases in bad batches.'

Critics note that even among those who recommend a continuation of pill testing services, evidence-based claims of effectiveness are cautious and inconclusive. The evaluation conducted after the ACT Pill Testing Trial 2019 stated, 'Overall, the evaluation produced no strong arguments against the development of further services that provide pill testing and harm reduction information for people who use illicit drugs.' The 2022 evaluation of the ACT Pill Testing Trial, while recommending the program continue, also acknowledged limitations in its findings. The evaluation noted, 'As a small pilot study in a real world, there are limitations with the data set. In addition to missing questionnaire data (particularly the post-testing survey), the follow-up data set is small. Studies such as this, that use self-report data, particularly regarding illegal behaviour like drug use, are prone to social desirability bias; in this case, the under-reporting of socially disapproved behaviour.'

Further implications

New South Wales and Victoria have been the two Australian states with the largest number of fatalities and drug-related hospitalisations over the 2023-2024 summer festival period. Speculation is now growing as to whether either state will soon alter its stance against pill testing.

Both states have an established history of opposition to pill testing which has been restated by their current governments. Immediately following the two recent music festival deaths in Sydney, the New South Wales health minister, Ryan Park, stated that pill testing was not a 'silver bullet' that would prevent deaths, while the premier, Chris Minns, indicated there was not enough evidence to justify its introduction at this time. This was in response to requests that the New South Wales government immediately begin a trial of the service. The Victorian premier Jacinta Allan responded to similar requests by stating, 'We have no plans to change the current settings on that matter.'

Pressure on these state governments to change their policies will not end with the end of summer and the music festival period. Both the New South Wales and Victorian governments will face continued demands to introduce pill testing before the start of the next festival season. The New South Wales Greens have introduced a bill into state parliament to license as many as four pill-testing sites, including one in a fixed location. The Victorian government is also being pushed to act on pill testing. Three crossbench parties have renewed their calls on the Victorian Government to establish pill testing across the state. The Victorian Greens, the Animal Justice Party, and Legalise Cannabis Victoria have a bill before Parliament that would establish pill testing in time for the 2024 summer festival season. As with the Green's bill in New South Wales, the Victorian Pill Testing Pilot for Drug Harm Reduction Bill would establish a mobile pill testing service for major music festivals, as well as a fixed-site service for more detailed analysis year-round. Both sites would be licensed for two years with the potential for a four-year extension following a review.

Some critics have anticipated that the two state governments will continue to oppose pill testing; however, their current positions may simply indicate that neither state government wants to appear to be buckling under pressure from another party or from drug testing lobbyists. Each of these new state governments inherited their position on pill testing from the government which proceeded them - Minns from the former Bereijklian Liberal government, and Allan from the former Andrews Labor government. Bereijklian was a

firm opponent of pill testing, declaring she had 'closed the door' on it, even in the face of a coroner's recommendation that it be introduced. Andrews was perhaps even more staunchly opposed, declaring that the policy on pill testing would not change while he was in office. With pill testing having been so vocally opposed by the former premiers of each state, the new governments may want an opportunity to establish themselves before they address this issue.

Despite what some commentators have said, each of these new governments has shown a potential to change its position. During last year's election campaign, Chris Minns promised to hold a drugs summit if his party won power in New South Wales. Since the election he has indicated that the summit will be held this year. Pill testing will be one of the items on the summit's agenda. The current Victorian premier, Jacinta Allan, has also not expressed the same level of opposition to pill testing as her predecessor. On January 16, 2024, she indicated that she would open debate about pill testing with cabinet ministers and seek expert advice on the harm-minimisation approach.

Given the high level of popular support for pill testing \square and the unanimous support of the medical and health services community \square there seems little political risk in either state government changing its current position. However, as opponents of the measure note, there is no guarantee that there will not be further deaths at next year's music festivals even if pill testing regimes are introduced in each state.