

Drug checking services

BRIEF

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Unharm!
Getting drugs right.

Unharm

A grassroots organisation campaigning for safe, positive and ethical drug use

www.unharm.org

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Executive summary

- Drug checking services (a successor term for 'pill testing'¹) make the contents of drugs transparent to consumers. Service staff conduct chemical analysis of samples brought by consumers, then interpret and provide the results with information about the risks of consuming the substances identified in the sample.
- Services usually conduct brief interventions to identify and support people away from problematic consumption patterns where necessary.
- Drug checking services currently operate in about a dozen countries around the world and at present only in one emergency setting in Australia.
- Drug checking can be considered a traditional regulatory intervention in markets to control the harms that suppliers would otherwise cause to consumers. Drug checking also
 - enables better risk management by consumers,
 - creates an opportunity to support people away from problematic consumption patterns, and
 - provides timely and valid data about illicit drug markets and products than can be used to improve clinical care and law enforcement.
 - Drug checking services are timely due to the persistence of illicit markets, the limitations of current regulatory approaches, and the increased risks from the proliferation of high potency and new psychoactive substances.

¹ The term 'drug checking' is more correct because only some of the drugs checked are in pill form but it is not as widely understood as 'pill testing' which can therefore be more useful in describing the service.

Brief: drug-checking services

What are drug-checking services?

Drug checking services use chemical analysis to determine the content and purity of samples of illegal drugs, brought to the service by members of the public. Information about the sample is interpreted by on-site experts, and provided to the person who brought it, by experts. The person usually also receives information about the risks of consuming the substances identified in the sample, and a brief intervention to identify and support people away from problematic consumption patterns where necessary.

Anonymised information about the sample is typically shared with other consumers, Emergency Departments and law enforcement.

Drug checking services are conducted in a range of settings, including at events where people are known to consume illicit drugs, for example dance parties and music festivals. Illicit drug use is not unique to these settings so services also operate in 'high-street' locations and via mail-in.

Context for Australian drug checking services

Prevalence and place of use of main illicit drugs other than cannabis

In 2013, 2.5% of people (580,000) in Australia reported to the National Drug Strategy Household Survey that they had used ecstasy in the past year. Cocaine use and non-medical meth/amphetamine use were reported at a similar rate – each by 2.1% (480,000 people).^{2,3} Actual prevalence of use is likely to be higher – a recent Australian study found that self-reported drug use was about half the rate indicated by oral drug tests.⁴

People in their twenties were more likely than other age groups to report use of ecstasy (8.6%), cocaine (5.9%) and non-medical meth/amphetamine use (5.8%) in the previous year.

Most people who reported past-year use of these drugs used them only infrequently, with 'once or twice a year' the most common response (53.5% of ecstasy users, 49.6% of non-medical meth/amphetamine users and 71.3% of cocaine users across Australia).

Drug use was reported across a variety of settings. People who had used ecstasy in the past year reported doing so at private homes (47.2%), private parties (55.2%), raves/dance parties (63.8%), and other public establishments (49.4%), and a range of less common venues. Illegal drugs were most commonly sourced from friends, with 63.0% of ecstasy users citing a friend as their main source and 29.9% a dealer.

² Past year drug use, people aged 14 years or older, NSW, 2013. Australian Institute of Health and Welfare, 2014, *National Drug Strategy Household Survey detailed report 2013*, Australian Government.

³ NSW June 2013 population data from ABS, 2014, *3101.0 Australian Demographic Statistics, TABLE 4. Estimated Resident Population, States and Territories (Number)*

⁴ Peter Miller, et al, 2015, 'Drug use in Australian nightlife settings: estimation of prevalence and validity of self-report', *Addiction* (epublication ahead of print, accessed 24/09/15 at <http://www.ncbi.nlm.nih.gov/pubmed/26189494>)

High potency and new psychoactive substances

Recent innovations in MDMA (ecstasy) synthesis have led to high potency MDMA in pill or crystal forms circulating on global drug markets.⁵ At the same time, many new psychoactive substances have become available in global drug markets in recent years, and at an increasing rate.⁶

In 2014, European Early Warning System Member States made notifications for 101 new psychoactive substances not previously reported.⁷ These new substances are introduced into markets in a variety of ways, either as counterfeit versions of illegal drugs, as adulterants to these drugs, or as new products in their own right.⁸ Many of these new psychoactive substances are sold in forms that are far more potent than 'traditional' psychoactive substances.⁹ Knowledge about the risks of new psychoactive substances is limited, and even less information is available about combinations of these substances with other drugs in a single pill or powder.¹⁰ These are risks that users may not know about and might want to avoid.¹¹

Persistence of poorly regulated illicit drug markets and limitations of current responses

The illegality of the sale, distribution, use and possession of illicit drugs means that governments have had to rely on just two kinds of regulatory intervention: persuasion and enforcement.¹² Government efforts at persuasion have been limited in scope and shown little impact to date, while enforcement of prohibition has not effectively regulated the supply of illicit drugs.¹³

Drug detection operations are among the enforcement strategies ineffective at regulating the supply of illicit drugs¹⁴ and in response to the presence of detection dog operations people adopt behaviours that increase risk of harm: hiding drugs internally, 'pre-loading' prior to travelling to an event, or taking all their drugs at once when they see a drug detection operation at the entrance to an event.^{15 16 17 18}

⁵ Helen Pidd, 2014, 'Clubbers warned of overdose risk from super-strength ecstasy,' *The Guardian*, 29 November 2014, accessible at <http://www.theguardian.com/society/2014/nov/28/clubbers-warn-overdose-risk-from-superstrength-ecstasy-mdma>, accessed 12/01/16

⁶ European Monitoring Centre for Drugs and Drug Addiction, 2015, *European drug report*, accessible at <http://www.emcdda.europa.eu/publications/edr/trends-developments/2015/online/start>

⁷ *ibid.*

⁸ Claudio Vidal Gine et al, 2014, 'New psychoactive substances as adulterants of controlled drugs. A worrying phenomenon?', in *Drug Testing and Analysis*, 6, 819-824.

⁹ UNODC, 2013, *The challenge of new psychoactive substances*, UNODC, accessible at https://www.unodc.org/documents/scientific/NPS_Report.pdf, accessed 12/01/16

¹⁰ Claudio Vidal Gine et al, 2014, 'New psychoactive substances as adulterants of controlled drugs. A worrying phenomenon?', in *Drug Testing and Analysis*, 6, 819-824.

¹¹ *ibid.*

¹² Ritter, A. (2010). "Illicit drugs policy through the lens of regulation." *International Journal of Drug Policy* 21(4): 265-270.

¹³ *ibid.*

¹⁴ NSW Ombudsman, 2006, *Review of the Police Powers (Drug Detection Dogs) Act 2001*, NSW Ombudsman

¹⁵ Gordian Fulde, 2015, 'In their attempts to smuggle drugs into festivals our youths are putting themselves in serious danger', in *The Daily Telegraph*, accessed January 6 2016 at <http://www.dailytelegraph.com.au/news/opinion/in-their-attempts-to-smuggle-drugs-into-festivals-our-youths-are-putting-themselves-in-serious-danger/story-fni0cwl5-1227243510099>

Attitudes to drug checking

Attitudes to drug checking services are unknown in the broader population but widely supported by young people in Australia. In a recent survey of Australians aged 16-21, 83% said that they supported 'pill testing (where people can have the contents of their pills tested)', including 70% of people who said they had never used an illicit drug.¹⁹

Why check drugs?

Drug checking as a regulatory intervention in illicit drug markets

There is little control over the purity and labelling of prohibited drugs.²⁰ Composition of substances varies widely, making effects unpredictable.²¹ Poor synthesis often leaves by-products and the health effects of these are typically unknown.²² A traditional market regulation strategy would aim to control the risks in products sold to consumers and increase the consumer's ability to choose good from bad products.²³ Prohibition makes most forms of market regulation impossible, but drug checking is an example of how market forces could be used to encourage suppliers to modify their behaviour and cause less harm.²⁴ Drug checking achieves this by providing individuals with information about the substances present in the sample they bring to the service, and publicising that information to other consumers. This makes it more difficult for drug dealers to sell unknown, contaminated or unwanted substances.

Drug checking as a way to promote safer consumer behaviour

Drug checking services provide consumers with credible information about the risks of consuming particular substances²⁵ that is based on what the substances actually are, rather than on consumers' often mistaken beliefs about the contents.²⁶ This is of value to illicit drug consumers and therefore acts as an incentive for them to come to the service, meaning that drug checking services engage people who are already using illicit drugs but are often hard to reach via other health-based

¹⁶ Sophie Hickey, et al., 2012, 'Drug detection dogs in Australia: More bark than bite?', *Drug and Alcohol Review* (September 2012), 31, 778–783

¹⁷ Hazelwood, P., et al, 2008, 'Sniffer dogs: Their role in the reduction of drug-related harm? Results of an Internet survey on people's experiences with sniffer dogs in Victoria, Australia.' Paper presented at the 5th International Conference on Nightlife, Substance Use and Related Health Issues 23–25 June, Ibiza, Spain.

¹⁸ Dunn M and Degenhardt L., 2009, 'The use of drug detection dogs in Sydney, Australia.' *Drug Alcohol Review* 28:658–62.

¹⁹ Kari Lancaster et al, 2013, *Young people's opinions on alcohol and other drugs issues*, Australian National Council on Drugs.

²⁰ Brunt, T. M. and R. J. M. Niesink (2011). 'The Drug Information and Monitoring System (DIMS) in the Netherlands: Implementation, results, and international comparison.' *Drug Testing and Analysis* 3(9): 621-634.

²¹ Australian Crime Commission, 2015, *Illicit drug data report 2013-14*, Australian Crime Commission.

²² Claudio Vidal Gine et al, 2014, 'New psychoactive substances as adulterants of controlled drugs. A worrying phenomenon?', in *Drug Testing and Analysis*, 6, 819-824.

²³ Ritter, A. (2010). "Illicit drugs policy through the lens of regulation." *International Journal of Drug Policy* 21(4): 265-270.

²⁴ *ibid.*

²⁵ *ibid.*

²⁶ Helena Valente, Daniel Martins, Helen Moura, *Drug check!ng: shedding light on the black market*, conference presentation at Club Health 2015, accessible at <http://www.cph.org.uk/wp-content/uploads/2015/07/Helena-Valente.pdf>, accessed 12/01/16

services.²⁷ The service can be a setting for psychosocial interventions to identify and support people away from problematic consumption patterns where necessary.

An Australian drug checking service operated by Enlighten Harm Reduction between 2000 and 2005 included a secure bin where some consumers chose to dispose of drugs after receiving the results of the test.²⁸

Drug checking services can influence the behaviours of a broader group of consumers via warning systems that disseminate information about particularly dangerous samples. Warning notices are posted at festivals, on websites and on social media.²⁹

Drug checking to support health care service provision

Drug checking supports health care service provision through real-time monitoring of drug use trends and the emergence of new substances onto illicit markets. This improves the knowledge base for clinical management of acute and chronic presentations³⁰, as well epidemiological and public health monitoring, and could contribute to better overdose management through the dissemination of up-to-date information about substances circulating on the market. Sampling directly from consumers is more accurate than relying on samples from police seizures because seizures may be a misrepresentative subsample of substances on the market³¹, and are often less adulterated than substances that are actually consumed.³²

How is testing conducted?

The most basic services use colourmetric reagent testing, where a chemical reagent is mixed with the substance being tested. When combined, the reagent and the contents of the substance react and change colour. This colour is then compared with a colourmetric chart that indicates the most likely contents of the substance. Multiple tests with different reagents are necessary for the greatest accuracy. Colourmetric reagent testing kits are widely available to consumers from internet retailers at low cost, for example:

²⁷ Rainer Schmid, 2013, *Drug testing at music events - A low threshold drug prevention program for young consumers of synthetic drugs*, accessible at <http://www.ewdts.org/data/uploads/vienna/ewdts2013-schmid.pdf>, accessed 12/01/16

²⁸ Andrew M. Camilleri & David Caldicott, 2005, 'Underground pill testing, down under', in *Forensic Science International*, 151, pg 54.

²⁹ Trans European Drug Information (TEDI), 2011, *Factsheet on Drug Checking in Europe*, TEDI. Accessible at https://www.ecstasydata.org/text/2011/2011_tedi_factsheet_on_drug_checking_in_europe.pdf, accessed 12/01/16

³⁰ Nadine Ezard, Monica Barrett, Robin Butterfield, *The case for incorporating drug checking into Australia's drug trend monitoring systems*, conference presentation at 2015 APSAAR Congress and IDARS Conference, accessed via the authors.

³¹ Monica Barrett, Robin Butterfield, Nadine Ezard, *Improving the monitoring of New Psychoactive Substances (NPS) in Australia*, conference presentation at 2015 APSAAR Congress and IDARS Conference, accessed via the authors.

³² Trans European Drug Information (TEDI), 2011, *Factsheet on Drug Checking in Europe*, TEDI. Accessible at https://www.ecstasydata.org/text/2011/2011_tedi_factsheet_on_drug_checking_in_europe.pdf, accessed 12/01/16

- Ecstasypilltest.com is an Australian retailer that sells a 'Complete Ecstasy Pill Test Kit' comprising the following reagents: Marquis, Mandelin, Mecke, Robatest and Buffer. Each reagent is packaged separately and is sufficient to conduct about 80 tests. The kit costs AU\$79.95 including shipping, representing AU\$1 per test.
- Dancesafe is a US retailer that sells a 'Complete Set Of All 7 Testing Kits' that comprises the following reagents: Mandelin, Mecke, Marquis, Folin, Froehde, Liebermann and Ehrlich's. Each reagent is packaged separately and is sufficient to conduct about 50 tests. The kit costs US\$95.00 plus US\$58 postage, representing AU\$4.30 per test.
- EZ Test Wholesale is a Netherlands retailer that sells 100 GHB tests for EU\$135 plus EU\$19.50 shipping, representing AU\$2.35 per test.

Colourmetric reagent tests have substantial limitations: they are only indicative; they provide no information on the non-drug components which may be present in a sample; they give misleading results for drug mixtures; they have only limited capacity to provide information on drug dosages or purity; they give results that are open to subjective interpretation; and they contain hazardous chemicals.³³ A study conducted in South Australia compared reagent test results with results from laboratory analysis (using Gas Chromatography-Mass Spectrometry). Only 11% of pills with combinations of illicit substances had both substances correctly identified by the reagent test.³⁴

Much more precise testing procedures utilise modern laboratory technologies like chromatography and spectrometry, and use them to compare samples with a reference library of chemical standards. A Victorian feasibility study for an illicit drug monitoring system explained that

*chromatography involves the separation of a drug compound into its separate chemical components, thus permitting the identification of individual substances in complex chemical mixtures. It is a relatively fast technique, taking as little as fifteen minutes, possesses high-level reliability and produces quantitative and qualitative results that can be used immediately in on-site testing locations. Mass spectrometry involves the conversion of a drug or drug metabolite into charged particles and the mass-to-charge ratios of the particles generated create a pattern that provides a positive identification of the drug.*³⁵

These technologies are substantially more expensive to purchase and operate than colourmetric reagent testing, but they address the substantial limitations of the older technique. In particular, testing methods that involve chromatography provide information about the substances present in a pill or powder *and the quantity* of the substances present.³⁶ High performance liquid chromatography (HPLC) is a particularly accurate technology for conducting quantitative analysis to

³³ Roger Nicholas, 2006, On-site ecstasy pill testing - a consideration of the issues from a policing perspective, The Australasian Centre for Policing Research.

³⁴ Andrew M. Camilleri & David Caldicott, 2005, 'Underground pill testing, down under', in Forensic Science International, 151, pp 53-58.

³⁵ Hales, J. (2009). A feasibility study for an illicit tablet information and monitoring service. Report to the Premier's Drug Prevention Council Victoria. Melbourne, Health Outcomes International.

³⁶ Roger Nicholas, 2006, On-site ecstasy pill testing - a consideration of the issues from a policing perspective, The Australasian Centre for Policing Research.

determine the dose present in samples,³⁷ and for that reason some services use a combination of liquid chromatography–mass spectrometry (LCMS) and HPLC. A review conducted for the Australasian Centre for Policing Research recommended that

*if it is deemed desirable to accurately determine the content and quantity of substances present in ecstasy pills as part of a harm reduction approach, then these are the 'gold standard' approaches that should be used.*³⁸

In addition to the very precise qualitative analysis possible with mass spectrometry, HPLC enables accurate quantitative analysis – that is, it enables analysts to determine how much of each substance is present in the sample.³⁹

The major limitation of this type of technology is the low through-put given the time taken to process samples. An Austrian drug checking service discussed later in this brief uses four high-performance liquid chromatography–mass spectrometry (HPLC-MS) systems running in parallel. The service can analyse up to 100-120 samples a night. This kind of system has high start-up costs of approximately €100,000 (AU\$155,000) for each HPLC-MS, though the technology can be used for other applications which could defray costs substantially.⁴⁰

Hand held devices using Raman Spectrometry technologies may be a good alternative but have not yet been carefully assessed for use in drug checking services. These devices are typically manufactured for illicit drug identification by police and customs or chemical emergency first responders. Readings are very fast in comparison to the more precise HPLC-MS systems and the devices are much smaller and about one third of the cost.

Drug checking services around the world

Although no sanctioned consumer drug-checking services operate outside of emergency settings at this time in Australia, there are services operating in other countries:

- The Trans-European Drug Information project (TEDI) comprises Checkit! (Austria), Jellinek (Netherlands), AiLatek (Spain), APDES (Portugal), Saferparty (Switzerland), CePT (Luxembourg), Medecins del Monde (France), co-ordinated by Energy Control (Spain).⁴¹
- The Netherlands has a drug monitoring system DIMS that sources data from a network of drug checking services across the country.⁴²
- A research project in Manchester provides drug checking services in nightlife settings.⁴³

³⁷ Dr Prof David Caldicott, personal communication

³⁸ Roger Nicholas, 2006, On-site ecstasy pill testing - a consideration of the issues from a policing perspective, The Australasian Centre for Policing Research.

³⁹ Dr David Caldicott, 2016, personal communication.

⁴⁰ Helena Valente, Daniel Martins, Helen Moura, *Drug check!ng: shedding light on the black market*, conference presentation at Club Health 2015, accessible at <http://www.cph.org.uk/wp-content/uploads/2015/07/Helena-Valente.pdf>, accessed 12/01/16

⁴¹ See <http://newip.safernightlife.org/drug-checking>

⁴² Brunt, T. M. and R. J. M. Niesink (2011). 'The Drug Information and Monitoring System (DIMS) in the Netherlands: Implementation, results, and international comparison.' *Drug Testing and Analysis* 3(9): 621-634.

⁴³ See <https://www.dur.ac.uk/sass/staff/profile/?id=11362>

- The International Drug Testing Service (through Energy Control in Spain), ecstasydata.org in the USA and WEDINOS in Wales operate mail-in drug checking services.^{44 45}

Face-to-face drug checking services provide the opportunity to interact with and influence the behaviour of consumers. They vary in service model, location and technology. Three examples are provided below, representing some of the best practice.

Drug checking in the Netherlands

In the Netherlands, drug checking began in the 1990s. Initially it was conducted by a non-government organisation and operated as a mobile service. The service has now transitioned to a network of 26 fixed sites and is incorporated into the Ministry of Health's Drug Information and Monitoring System (DIMS). Services typically operate on a weekday, in the afternoon and evening, in a 'high street' setting.

Consumers attend the service and provide the sample. Initial testing is done on the spot with a colourmetric reagent test and by comparing pill size, shape and colour with a database. Consultations include a brief health education intervention and the option for referral to further interventions. Second line laboratory testing is also conducted using thin layer chromatography or Gas chromatography–mass spectrometry, but there is a one week delay before these test results are available.⁴⁶

Drug checking in Vienna, Austria⁴⁷

The 'Checkit!' service was founded by the Drug Coordination service of the City of Vienna in 1997, in collaboration with the Medical University of Vienna. The service is run by a non-government organisation with a mobile lab that is transported to festivals and events. It provides objective information about substances submitted alongside a brief psychosocial counselling intervention and the option of a referral to further interventions.

The service has three zones – an information and counselling zone with up to eight staff trained in psychosocial counselling, a sampling zone staffed by two counsellors, and an analytical laboratory staffed by up to three trained chemists.

A special sampling device enables the consumers to prepare the sample themselves – a process which is necessary due to the legal parameters for the service. The mobile lab then uses one of four high-performance liquid chromatography–mass spectrometry (HPLC-MS) systems running in parallel to analyse the sample.⁴⁸

⁴⁴ See <http://energycontrol.org/noticias/528-international.html>

⁴⁵ See <http://www.wedinos.org/>

⁴⁶ Brunt, T. M. and R. J. M. Niesink (2011). 'The Drug Information and Monitoring System (DIMS) in the Netherlands: Implementation, results, and international comparison.' *Drug Testing and Analysis* 3(9): 621-634.

⁴⁷ Except where noted, the reference for this section is Rainer Schmid, 2013, *Drug testing at music events - A low threshold drug prevention program for young consumers of synthetic drugs*, accessible at <http://www.ewdts.org/data/uploads/vienna/ewdts2013-schmid.pdf>, accessed 12/01/16

⁴⁸ Karl Kociper (Checkit! Director), 2016, personal communication.

Using this set up, the service can analyse up to 100-120 samples a night and results are posted in about 20 minutes.⁴⁹ A larger group of people access other parts of the service, with 600 information and/or counselling contacts on-site per night.

Test results are posted alongside the counselling zone. The results are numbered so that the person can identify a result as their own, and include a brief interpretation of what the results mean in terms of risk (e.g., 'Caution, high dosage').



Image credit: Checkit!

Drug checking in Portugal⁵⁰

The Check!n service was established in Portugal in 2006 as a harm reduction team working in party settings, with the support of Portuguese High Commissioner for Health. Drug checking was integrated into this service in 2009 and is conducted at music festivals and other party settings.

Check!n uses a hybrid testing process with increasingly accurate and expensive testing methods applied where possible and necessary. Initial tests use colourmetric reagent testing to give an indication of the contents of the substance. Thin layer chromatography (TLC) is then used to identify all substances present in the sample. TLC is a relatively rudimentary technology that does not provide quantitative information. Where TLC cannot identify the substance/s or where quantitative testing is required, HPLC is used. HPLC has very high reliability of results but is much more expensive than TLC with start up costs of approximately €100,000 compared with €4,000 for TLC.

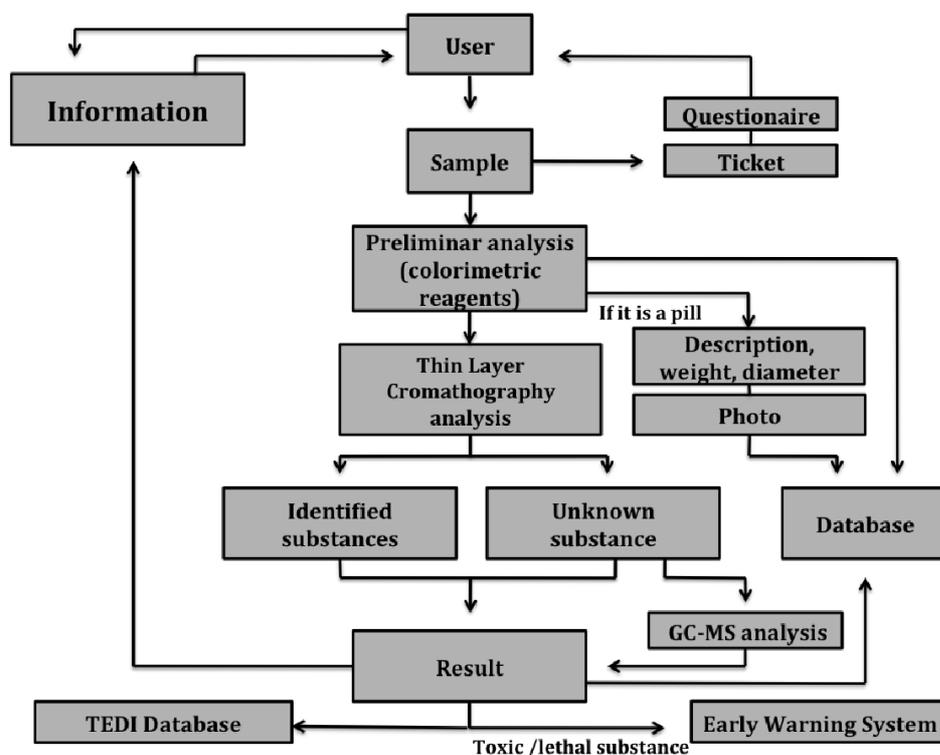
⁴⁹ Karl Kociper (Checkit! Director), 2016, personal communication.

⁵⁰ The reference for this section is Helena Valente, Daniel Martins, Helen Moura, *Drug check!ng: shedding light on the black market*, conference presentation at Club Health 2015, accessible at <http://www.cph.org.uk/wp-content/uploads/2015/07/Helena-Valente.pdf>, accessed 12/01/16

HPLC is also slower, able to test about three samples per hour compared with 20 to 30 samples per hour using TLC, and must be conducted and interpreted by a specialist chemist or toxicologist.

The diagram below shows this flow through the service, with different testing technologies used at different points as appropriate.

Figure 1: CHECK!N (Portugal) service flow



Information about the substances present in samples is disseminated to consumers, to the Trans-European Drug Information database and where necessary, to the European Early Warning System. At multiple-day festivals, service staff post alerts around the festival site when particularly dangerous substances, or substances that differ from the claimed contents, are detected in samples.

Drug checking service evaluation evidence

A controlled trial would be necessary to identify the full extent to which consumer drug checking services can influence the supply side of drug black markets but indicative evidence is positive. The Netherlands' Drugs Information Monitoring System (DIMS) found that particularly dangerous substances identified through drug checking services and made the subject of public warning campaigns were eliminated from the market.⁵¹ Programs in Berlin and Switzerland found that the actual ingredients of tested pills corresponded more and more to the expected ones over time.⁵²

⁵¹ Spruit, I. P. (2001). "Monitoring synthetic drug markets, trends, and public health." *Substance Use and Misuse* 36(1-2): 23-47.

⁵² Kriener, H. and R. Schmid. "Check Your Pills. Check Your Life. ChEck iT! High quality on-site testing of illicit substances. Information, counselling and safer use measures at raves in Austria." Retrieved 3 August 2005,

Indicative evidence about the capacity of consumer drug checking services to influence consumer behaviour in ways that reduce risk of harm is also positive. Evaluation of the Austrian project Checkit! found that when presented with a 'bad result', two thirds of people say they will not consume the drug and will warn friends.⁵³ A recent evaluation of the Portuguese service found that among people who had tested a substance that they thought was LSD, for example, 45% were surprised by the result and 29% reported they would not take the substance. In Australia, a study that asked participants how they would respond in a hypothetical situation where a test indicated an 'unknown' substance found that 76% reported they would not take it.⁵⁴

The Netherlands' Drugs Information Monitoring System also shows evidence of the capacity for drug checking services to engage with populations that do not engage with other government messages about drug use. Program staff have observed that 'young drug users often dismiss government messages as tendentious and untrustworthy and are better persuaded by personal contact with well-informed peers or professionals'.⁵⁵

Other hypothesised impacts that require further evaluation include:

- increased timeliness and accuracy of data used to monitor markets and products, and
- improved clinical care – particularly overdose management – through the dissemination of up-to-date information about substances circulating on the market.

How would a service sit within the existing policy context?

National Drug Strategy

The mission of the Australian National Drug Strategy [NDS] is 'to build safe and healthy communities by minimising alcohol, tobacco and other drug-related health, social and economic harms among individuals, families and communities.'⁵⁶ The framework for that mission is the 'three pillars' of demand reduction, supply reduction and harm reduction.

A consumer drug checking service could be construed as consistent with the NDS harm reduction objective 'reduce harms to individuals'. In particular it would 'strengthen evidence-based drug education initiatives to ensure they are appropriately targeted in terms of patterns of drug use

from <http://www.drugtext.org/library/articles/kriener.htm>, quoted in Alison Ritter and Jacqui Cameron, 2005, *Monograph No. 06: A systematic review of harm reduction*. Turning Point Alcohol and Drug Centre.

⁵³ Kriener, H. and R. Schmid. "Check Your Pills. Check Your Life. ChEck iT! High quality on-site testing of illicit substances. Information, counselling and safer use measures at raves in Austria.". Retrieved 3 August 2005, from <http://www.drugtext.org/library/articles/kriener.htm> Alison Ritter and Jacqui Cameron, 2005, *Monograph No. 06: A systematic review of harm reduction*. Turning Point Alcohol and Drug Centre.

⁵⁴ Johnston, J., Barratt, M. J., Fry, C. L., Kinner, S., Stoové, M., Degenhardt, L., George, J., Jenkinson, R., Dunn, M., & Bruno, R. (2006). A survey of regular ecstasy users' knowledge and practices around determining pill content and purity: Implications for policy and practice. *International Journal of Drug Policy*, 17, 464-472.

⁵⁵ Brunt, T. M. and R. J. M. Niesink (2011). 'The Drug Information and Monitoring System (DIMS) in the Netherlands: Implementation, results, and international comparison.' *Drug Testing and Analysis* 3(9): 621-634.

⁵⁶ Ministerial Council on Drug Strategy, 2011, *National Drug Strategy 2010–2015*, Commonwealth of Australia.

through the life span and mode of delivery' by providing up-to-date information about drugs being used in specific population groups.⁵⁷

A drug checking service could access a population that might not come into contact with other services, and thereby also help meet the NDS demand reduction objective to 'support people to recover from dependence and reconnect with the community' and the harm reduction objective to 'enhance treatment and associated service systems across settings to provide help at all stages of drug use, particularly for disadvantaged populations'.

What are the legal implications of a service?

The only published legal advice about the legal implications of a drug checking service in an Australian jurisdiction comes from New South Wales. Relevant offences in the *NSW Drugs Misuse & Trafficking Act 1985* include possession⁵⁸ and supply of prohibited drugs, and knowingly taking part in supply.⁵⁹ Aiding or abetting any of these offences is also an offence.⁶⁰ Any organisation intending to commence operation of a drug checking service should seek formal legal advice. However, the Courts and Legal Services of the NSW Police Service provided the following advice in 2001 to consultants working on behalf of the Commonwealth Department of Health:

The question of criminality associated with the possession and use of testing kits would depend on the circumstances... [A] tester in the context of a testing station would not be committing an offence of possession because the charge requires that the person has knowledge of the substance being an illicit drug and has physical control over the substance... [A] tester would not know what the substance was until after the test was performed and it is likely that holding the drug for long enough to perform a test does not constitute control.

NSW Police Service also considered it unlikely that a person who provides a testing facility could be found guilty of the offence of aiding or abetting the possession or use of a prohibited drug. It is believed that for a person to be aiding and abetting the offence they must be 'linked in purpose' with the drug user and that it is also necessary for the person to engage in some action or encouragement which makes the offence more likely to occur.⁶¹

⁵⁷ *ibid.*

⁵⁸ Part 2 Division 1 Summary Offences: Section 10 (1): A person who has a prohibited drug in his or her possession is guilty of an offence. Note that 'to prove possession, the prosecution must show beyond reasonable doubt that: illegal drugs were in a person's "custody or control", and the person knew that this was the case.' Steve Bolt, 2014, 'Drug offences', in *The Law Handbook*, 13th Edition, Thomson Reuters, Sydney.

⁵⁹ Part 2 Division 2 Indictable Offences: Section 25 (1): A person who supplies, or who knowingly takes part in the supply of, a prohibited drug is guilty of an offence.

⁶⁰ Part 2 Division 1 Summary Offences: Section 19 (1) and Part 2 Division 2 Indictable Offences: Section 27 (1): A person who aids, abets, counsels, procures, solicits or incites the commission of an offence under this Division is guilty of an offence and liable to the same punishment, pecuniary penalties and forfeiture as the person would be if the person had committed the firstmentioned offence.

⁶¹ Sue Henry-Edwards, et al, 2005, *Drug testing kits: detailed discussion paper on social, health and legal issues*, Australian Government Department of Health and Aging

Note that this applies only to the people working in the service, and that the clients of the service would remain at risk of prosecution.

In addition to potential violations of criminal law, any organisation intending to commence operation of a drug checking service should also consider civil liability. This issue was also addressed in the Department of Health report quoted above, in relation to colourmetric reagent testing kits. It is equally relevant here and is therefore reproduced in its entirety.

Concerns have been raised that the manufacture, distribution and use of ecstasy testing kits could potentially lead to huge problems with civil liability in the event of adverse reactions occurring after consumption of tablets which have been tested. Concerns were also raised by police drug and alcohol coordinators about whether a police force which agreed to testing kits being used as a harm reduction strategy would also incur liability. At this stage it has not been possible to obtain a legal opinion on these questions and it is likely that no definitive answer to this question can be given until an actual case has been decided.

In order to attribute liability it would be necessary to establish that there had been a breach of duty of care or an act of negligence on the part of the manufacturer or distributor of the test, the tester, or the organisation which agreed to the use of the tests as a harm reduction measure. Manufacturers, marketers and distributors of these kits would need to be careful in what they claim the test kits will indicate as a matter of duty of care. Duty of care is a jurisdictional issue and jurisdictions would need to seek their own advice as to the potential legal liability.

It is also necessary to establish a causal link between the testing kit and the adverse effect resulting from taking the tested drug. Among other questions at issue are what the test results mean, what is implied by a particular reaction, what information was provided to the user, and whether the user would have taken the tablet if it had not been tested.

...DanceSafe [USA] has adopted standard procedures for testing and information giving which represent an attempt to limit liability in the event of an adverse event. These procedures include never stating or implying that any pill is safe to use or that the user will be alright if they take it.⁶²

Legal issues will be specific to the jurisdiction where the service operates but the Netherlands' Drugs Information Monitoring System service provides some guidance about how a service could operate:

DIMS has a special permit to possess and handle illicit drugs for scientific purposes. Other important requirements are privacy protection and confidentiality for the providers, but also an environment and precautions to ensure the safety of the "testers," whether quick-testing in the field or working as preventive personnel in the offices where samples are delivered. Agreements ...ensure that police controls [operations] do not take place near test facilities.

⁶² Sue Henry-Edwards, et al, 2005, *Drug testing kits: detailed discussion paper on social, health and legal issues*, Australian Government Department of Health and Aging

Another ... agreement [is that police will] not inquire about the individual (regarding persons or drug samples) information for purposes of criminal investigation and prosecution.⁶³

There are two examples of how legal issues related to the operation of the a service could be dealt with in NSW.

Example of a formal guideline for policing in the vicinity of the service

Clients of the needle and syringe program in NSW remain at risk of prosecution for possession of prohibited drugs, but police officers are directed to 'be mindful not to carry out unwarranted patrols in the vicinity of needle and syringe program outlets that might discourage injecting drug users from attending.'⁶⁴ Formal police guidelines provide detailed advice about how officers should comply with this direction. These guidelines emphasise that police should communicate with needle and syringe program or pharmacy staff if they need to conduct an operation in the vicinity of a service.⁶⁵ The needle and syringe program therefore provides a model for how police discretion could operate in relation to drug checking services. Note that needle and syringe program outlets could also be potential sites for co-location of drug checking services, which would entail continuation of normal police practice in the vicinity.

Example of an enabling legislative framework

The Sydney Medically Supervised Injecting Centre is a place where people can inject prohibited drugs and legal drugs used illicitly under the supervision of medical staff. *NSW Drugs Misuse & Trafficking Act 1985* Part 2a - Medically Supervised Injecting Centres, Division 4 exempts users of the centre from liability for possession of, administering or attempting to administer a small quantity of a prohibited drug. The Division also exempts 'persons engaged in conduct of licensed injecting centre' from offences prescribed by the Act and from 'civil liability in connection with conduct of licensed injecting centre'.

What related services and programs are currently operating in Australia?

Australian Federal Police Drug Monitoring System

The Australian Federal Police (AFP) are in the process of establishing a Drug Monitoring System (DMS) that will serve as a central repository for information on new psychoactive substances in Australia. Little information is available at this time but a recent AFP submission to a Federal Parliamentary Inquiry described the DMS as 'a central repository of information on precursor chemicals that are used in illicit drug manufacture and new psychoactive substances. The DMS will enhance detection and identification capabilities, and allow States and Territories to share technical information to ensure that regulatory mechanisms are updated to address new threats.'⁶⁶ Access to

⁶³ Spruit, I. P. (2001). "Monitoring synthetic drug markets, trends, and public health." *Substance Use and Misuse* 36(1-2): 23-47.

⁶⁴ NSW Police Force, 2013, *The needle & syringe program: guidelines for police*, NSW Police Force

⁶⁵ *ibid.*

⁶⁶ Attorney-General's Department, Australian Crime Commission, Australian Federal Police, Australian Institute of Criminology, Australian Transaction Reports and Analysis Centre, Immigration and Border Protection

the system is limited to persons considered ‘appropriate’ by administrators, and although containing some useful information regarding what products have been identified by law enforcement in Australia, is clearly focussed on interdiction.⁶⁷

Victorian Government feasibility study for ‘illicit tablet information and monitoring service’

The Victorian Government commissioned a feasibility study for an ‘illicit tablet information and monitoring service’ that was published in 2009. The study described a service that would

provide information about illicit tablets that enables individuals to be more informed of the content of the tablets that they may contemplate using; to identify the health and social risks associated with illicit drug use; to measure progress against strategies to offset drug use and to seek treatment, support and referral information. In addition, an [illicit tablet information and monitoring service] may assist in identifying emergent trends in drug use and in providing awareness of the presence of illicit drugs in specific regions, thus making it a useful resource for legislators, law enforcement personnel, health care providers, drug services and researchers.⁶⁸

ACTINOS (ACT Investigation of Novel Substances) project

ACTINOS was set up by Dr David Caldicott in the Emergency Department of the Australian Capital Territory’s Calvary Hospital. People presenting to Emergency Department while intoxicated have the option to give the remainder of whatever they have taken to doctors for laboratory analysis. Information is then shared among stakeholders, including the person themselves, so that they can understand what they took. The length of time needed to conduct tests means that the results are not used in the clinical care of the person themselves. Information is disseminated to other consumers via bulletin boards (e.g., pillreports.net) and press releases, and shared with other Emergency Departments, poisons units and law enforcement agencies.⁶⁹

Portfolio, June 2015, Parliamentary Joint Committee on Law Enforcement Inquiry into crystal methamphetamine (ice).

⁶⁷ Dr Prof David Caldicott, personal communication

⁶⁸ Hales, J. (2009). A feasibility study for an illicit tablet information and monitoring service. Report to the Premier’s Drug Prevention Council Victoria. Melbourne, Health Outcomes International.

⁶⁹ Cathy Saunders, 2015, ‘Opportunity lost: What the Emergency Department could tell us about drugs’, in *Of Substance*, 13 (1) pp. 8-11