

Drug checking services: an evidence brief

What is drug checking?

Drug checking services are where people who use drugs provide a small sample of a substance to find out its content and dosage - including unusual/unexpected substances and higher-than-usual doses - and receive a tailored health intervention. Individuals discuss their drug use and test results in a meeting with a healthcare worker (including peer-based harm reduction workers). Drug checking services can be provided at a fixed-site (permanent location) and as a mobile or pop-up service (e.g. on-site at venues and festivals). Service data can be cross-checked with other information about substances in the community.

Drug checking service data can feed into early warning systems (also referred to as 'early warning networks') which flag concerning trends or substances that pose particular risk to communities. In this way, data can be leveraged to inform health and harm reduction responses to emerging drug market trends. For example, advisories can be published to warn people if an unusually dangerous substance is circulating, and tailored workforce training can prepare first responders to respond to unusual presentations. Knowing whether drug samples contain unexpected novel substances gives communities, health and justice services, and government vital information it currently lacks.

Is it 'drug checking' or 'pill testing'? Are they the same thing?

Drug checking and pill testing are different terms that mean the same thing.

Drug checking is commonly known as 'pill testing' in Australia, although there are many different terms used to describe these services (including 'street drug identification', 'drug safety testing', and 'point-of-care drug testing')¹. The term 'drug checking' has been used in Europe for decades, and in the last 5-10 years this term has been adopted globally. Early services were called 'pill testing' services because they mostly focused on testing 'ecstasy' (MDMA) at festivals, which usually came in pill form. As drug checking interventions have developed and matured, so have discussions around the value of drug checking in other settings and for other drugs. Drug checking technology is now used to analyse many forms that drugs come in, including pills, tablets, powders, crystals, and liquids. This is why the term 'pill' is often replaced with the term 'drug' – to better reflect what forms of substances can be tested.

How widespread are drug checking services?

Drug checking services operate in at least 28 countries globally and are government-supported in three Australian jurisdictions.

In Australia, fixed-site and mobile drug checking services operate in Canberra^{2,3} and Queensland⁴. The Victorian Government has recently passed legislation and announced funding to commence fixed-site and mobile drug checking services commencing December 2024^{5,6}. An independent evaluation of the Canberra city-centre fixed-site service pilot strongly supported its continuation, and development beyond the pilot period³. The independent evaluation of Queensland's services is underway and will be available in 2025.

A 2022 review of harm reduction services around the world identified the existence of drug checking services in at least 28 countries⁸. In 2021, New Zealand passed legislation to make drug checking services fully legal, with extensive guidance on suitable service implementation features required to obtain a drug checking license⁷. In recent years, services have expanded significantly in countries around the world and particularly in North America (e.g. Toronto⁹ and Vancouver¹⁰) in response to soaring overdose rates arising from markets flooded with fentanyl-type substances.

Do people who use the service take measures to reduce harms?

Yes, people who use services show changes in behaviour.

In Australia: An independent evaluation of Canberra's mobile drug checking service trial found that all service users who were informed that their sample contained the novel substance n-ethyl-pentylone (a new psychoactive substance (NPS) known to have a particularly high-risk profile) discarded the drugs². The evaluation also found increases in self-reported drug harm reduction knowledge, trust in service providers, and behaviour change consistent with common harm reduction advice³.

Globally: There is strong evidence that service users adjust their intended behaviour after accessing drug checking services¹¹. Recent research from the UK¹² and Portugal¹³ also demonstrates that service users change their behaviour after accessing drug checking services, particularly when test results are unexpected. Most service users (86% Portugal, 69% UK) who received test results indicating that the drug was different than expected did not go on to consume the substance. About half of service users (50% Portugal, 59% UK) whose test results indicated that their drugs were stronger than expected took a smaller dose than usual. At a Canadian drug checking service located at a supervised injecting site, service users who unexpectedly found fentanyl in their drugs were more likely to reduce their dose¹⁰. Those who did reduce their dose were also significantly less likely to overdose.

Although harder to measure, there are indications that public communication of drug checking service findings through early warning

systems have impacts on broader consumer behaviour. The Dutch Drugs Information and Monitoring System¹⁴ quickly tailors public warnings to prompt avoidance of high-risk drug samples in the community. For example, in 2014, alerts were rapidly issued advising the public to avoid 'Superman' pills that contained an unexpected lethal dose of PMMA. No deaths were recorded in the Netherlands. In neighbouring UK where no warnings were issued, the same tablets were associated with several deaths¹⁵.

Does drug checking promote drug use or the perception that drug use is safer?

Evidence does not support claims that the implementation and availability of drug checking services lead to increased drug use.

A recent Australian study¹⁶ that surveyed festival-goers about drug checking scenarios found that the existence of a drug checking service (on-site at a festival or in a central fixed-site location) did not increase intention to use ecstasy, for both ecstasy-naive and ecstasy-initiated groups.

Drug checking services around the world operate on the basis that drug consumption is never entirely safe or risk-free. However, as evidenced above, drug checking services do create safer conditions under which drugs are taken, by empowering service users with knowledge to make informed decisions. This has been demonstrated to lead to safer decision-making.

Do Australians support drug checking?

Robust political discourse about drug checking has culminated in its public support.

The majority of Australians support drug checking, as evidenced in two recent major surveys: the nationally representative '2019 Australian Election Study'¹⁷ and the Australian Institute of Health and Welfare's (AIHW) 'National Drug Strategy Household Survey 2022-2023'¹⁸ (with an increase in support since the 2019 AIHW survey). Younger people (including age groups with the highest rates of use) are even more likely to support drug checking¹⁹.

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