CanTEST Health and Drug Checking Service Program Evaluation: Final Report

Anna Olsen, Greta Baillie, Raimondo Bruno, David McDonald, Mohamed Hammoud and Amy Peacock









We acknowledge and celebrate the First Australians on whose lands CanTEST operates, and pay our respect to the elders of the Ngambri and Ngunnawal people, past, present, and emerging.

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For queries regarding this publication, contact anna.olsen@anu.edu.au

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Author affiliations:

Anna Olsen, School of Medicine and Psychology, Australian National University Greta Baillie, National Drug and Alcohol Research Centre, University of New South Wales Sydney Raimondo Bruno, School of Psychological Sciences, University of Tasmania David McDonald, Social Research and Evaluation Pty Ltd Mohamed Hammoud, Kirby Institute, University of New South Wales Sydney Amy Peacock, National Drug and Alcohol Research Centre, Oniversity of New South Wales Sydney

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ABBREVIATIONS AND NOTATIONS

ACT	Australian Capital Territory
ANU	Australian National University
AOD	Alcohol and other drugs
ACTGAL	ACT Government Analytical Laboratory
FTIR	Fourier Transform Infrared Spectroscopy
FTS	Fentanyl test strips
GC-MS	Gas chromatography-mass spectrometry
GHB	Gamma hydroxybutyrate
IDU	Injecting drug use
MDMA	3,4-Methylenedioxymethamphetamine
NSW	New South Wales
PCE	Phenylcyclohexylethylamine
PWID	People who inject drugs
UNSW	University of New South Wales
UPLC-PDA	Ultra-performance liquid chromatography-photodiode array
UPLC-PDA-MS	Ultra-performance liquid chromatography-photodiode array mass spectrometry

TERMINOLOGY

AOD interventions: Alcohol and other drug interventions provided by service staff and offered to all service users.

Community notice: Public health notices issued by CanTEST to create awareness of a substance identified by the service which has significant unique or pervasive health risks.

Detected drug(s): The drug identified through FTIR at high confidence OR UPLC-PDA detection OR a positive fentanyl test strip.

Discard: When the drug is discarded within the service following testing of a sample of that drug.

Drugs: The substance that the service user presents for drug checking. It could be in the form of pill/tablet, capsule, powder, crystalline, liquid, or other. Once drug checking is conducted, service users are given the option to discard their drugs at the service.

Exact match: When the detected drug and the expected drug are the same (see definitions for 'detected drug' and 'expected drug'). Note that this does not preclude other substances also being identified.

Expected drug: When a sample is presented/submitted to be checked, the service user is asked what drug they think the sample contains before testing occurs. We call it the "expected drug". Knowing the expected drug helps tailor harm reduction advice. It also provides a reference for service users to compare between what they thought the sample was versus what the results show is in the sample.

Follow-up survey: Optional survey completed by primary service users voluntarily around two weeks after visiting CanTEST.

General health interventions: Other health interventions provided by the service nurse and offered to all service users.

Primary service user: When a group of service users presents in a visit, the group nominates a 'primary service user' to be the spokesperson for the group and to answer the service questions on behalf of the group. For those who visit the service by themselves, they are also referred to as a 'primary service user'.

Service users: Anyone who visits the service, solely or in a group, and for drug checking or for another reason (e.g., to access general health interventions available).

Service staff: CanTEST is a multi-disciplinary health service, with a staff team comprising of chemical analysts, nurses, Alcohol and Other Drug (AOD) counsellors, and peer educators.

Pre-test survey: An optional, standardised survey completed at the service by primary service users voluntarily prior to the submission of a sample for testing.

Post-test survey: An optional, standardised survey completed at the service by primary service users after the submission of a sample for testing.

Public health alert: Public health notices issued by ACT Health to create awareness of a substance which has significant unique or pervasive health risks.

Purity: Drug purity is identified through UPLC-PDA testing and categorised according to the purity % value:

High purity: >66%

Lower purity: 33-66%

Low purity: < 33%

Samples: When a service user visits the service to have drug/s checked, a small 'sample' of the drug is obtained on which to conduct testing. Samples cannot be returned to the service user after drug checking.

Unique ID: A code sequence generated by the primary service user that can be used to identify repeat visits by the same individual. The unique ID does not contain identifying information.

Visit: Each service interaction is recorded as a 'visit'. A visit can contain a single person (service user) or a group of service users.

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1 EXECUTIVE SUMMARY

This final evaluation report assesses the first six months of operation of the fixed-site health and drug checking service ("CanTEST") in Canberra, ACT. CanTEST is funded by ACT Health and run by a collaboration between Directions Health Services, Pill Testing Australia and the Canberra Alliance for Harm Minimisation and Advocacy. It is the first fixed-site drug checking service in Australia.

Between 21st July 2022 and 20th January 2023, 498 service users visited CanTEST with 481 visiting to check their drugs and 437 receiving drug checking. Open for six hours across two days each week there was an average of 15 visits per week (range 4-62). Over two-thirds (70%, n=168) of service users reported never previously accessing a healthcare worker for information or advice about drug use. Half the drugs were found to contain a substance not expected by the service user, evidencing the inconsistent drug market and need for drug checking to improve community safety.

The findings of this evaluation support the continuation of the service with a few suggestions for modifications and considerations for future operations.

1.1 Key findings against the evaluation questions:

To what extent was the service implemented as intended?

The first six months of the CanTEST service was intended as a pilot to develop and trial a fixed-site drug checking and health service in Canberra, ACT. Evaluation results show that the service is delivering drug checking and health services to people who use drugs. In the context of the pilot, the original service model has changed in minor ways. Planning and implementation took longer and was more costly than anticipated, in part because of the COVID-19 pandemic. The service has developed practices and protocols aligning the three collaborating organisations and the inter-disciplinary staff. Service users and stakeholders report that the model is delivering quality information and care however the current service location and opening hours are limited, and the service model should be revised to ensure optimal impact.

What are the key characteristics of those who accessed the service?

A total of 498 service users visited the site between 21st July 2022 and 20th January 2023 (includes those visiting the service for drug checking and those visiting for other reasons). Most service users reported residing in the ACT (80%) and are young adults (39% aged 24 or under and 30% aged 25-34). The majority of primary service users identified as 'man or male' (70%, n=182). Two-thirds (66%) of primary service users reported using any illicit drugs or pharmaceutical drugs like benzodiazepines or pharmaceutical opioids in the past month and relatively few service users reported injecting a drug in the past month (9%, n=22). The majority (70%, n=168) reported never previously accessing a healthcare worker for information or advice about drug use.

What service elements were needed and accepted by service users?

Open for six hours across two days, the Friday session (6-9pm) was more popular than the Thursday session (10am-1pm) and the most common hours of service provision were 6pm on Fridays. Most people accessed the service to have drugs checked, with the majority of these also receiving health interventions alongside their drug checking. A total of 626 samples were tested over the six months and 1,006 AOD and/or general health interventions were provided across all service users.

The service was received positively by service users. Follow-up data indicates that nearly all (98%, n=238) primary service users who completed the post-test survey said they would recommend the service to others,

and 94% (n=227) rated the service overall as 10/10. Service users valued the opportunity to discuss their drug use in a non-judgmental environment with friendly staff. Feedback in included a few suggestions for change with longer opening hours, more service days, being able to identify more drugs and easier parking the most common.

How was the service received by other key stakeholders?

Stakeholders from other organisations expressed support for CanTEST and the role of the drug checking service in reducing the harms of drugs in Canberra. They also reported that consultation prior to service development was adequate and requested ongoing updates. CanTEST staff noted the benefits of a fixed-site service compared to the festival setting and advocated for the fixed-site service continuing. Echoing service users, staff believed that the current location is not ideal for public access. Many also desired a premises with a more open layout and dedicated analytical space. Most staff believed that the service model is delivering quality information, education and health care but that it could be refined to streamline roles and processes.

To what extent did the service produce valuable and timely information about illicit drug availability and harms in Canberra, and how was that information used?

Only half the test results (53%, n=323) detected the expected drug, with an additional 2% (n=12) detecting another substance (with high confidence) as well as the expected drug. Thus, the service is providing critical drug and health information to individuals and the broader public. The service and ACT Health used this data to produce timely and informative information about illicit drugs. During the first six months of operation, CanTEST released five monthly reports summarising drug checking results, two community notices regarding harmful substances found in samples and one public health notice about a particularly dangerous substance. The reach of the monthly reports and community notices appears to be beyond the ACT as the service has received multiple requests for information and mail-in drug checking.

To what extent did the service result in service users' attitudinal and/or behavioural change related to illicit drug use?

As has been found in previous research, service users' reported likelihood of using the drug/s after receiving the test results varied considerably according to whether the results aligned with the drug they thought it would be. When the substance was not what the service user expected, it contained an additional drug or testing was inconclusive, service users were 4 times more likely to report that they would 'definitely not' use the drug. Approximately one-in-ten samples tested resulted in a drug being discarded at the service (10%, n=64).

Uniquely, this evaluation also recorded actual drug use post-drug checking. Aligning with reported intentions in the service, where the expected substance was not detected, an additional substance was found or the results was inconclusive, the drug was less likely to be used (32% reported 'Definitely will not use') than when the expected substance was found (7% reported 'Definitely will not use'). Trying to obtain more of the drug that was tested was uncommon for follow-up respondents and most reported telling someone else about the drug checking result.

Is the operational data sufficient and of quality to build an on-going minimum data set that would inform both routine monitoring and research activity?

Most service users accessing CanTEST are completing the voluntary pre-test and post-test surveys (82% completion rate), with 82 also completing the follow-up survey around two weeks after using the service. To date, these data have been collected in order to satisfy a range of needs and requirements including: legal obligations (e.g., ensuring service users signed waiver); undertaking chemical analysis quality assurance (e.g., ACTGAL testing); quantifying service provision (e.g., number of clients, number of interventions) for reporting to funders; understanding client experiences and outcomes as well as local drug markets; and evaluating the service. Findings suggest that data are comprehensive and of high quality. As the service evaluation is

complete there is scope to refine and streamline data collection in a way that still enables important insights on service performance and drug markets however reduces burden on service users and staff.

Did the service have any unintended consequences, either positive or negative? If so, what were they?

A range of unintended consequences were observed during the first six months of operation. Most of them were positive, and the few negative consequences are informative as to how the service can be further developed. A broad range of people visited the service, including diverse service users and professionals wanting to learn about the pilot. In terms of future planning, while ACT Health provided the funds to meet the budgets provided, substantial in-kind contribution has been necessary to design and implement the service. Further, the analytical equipment used is not owned by Directions Health Services or ACT Health and costs of either purchasing the equipment or leasing longer term will need to be considered. None of the unintended consequences are serious enough as to warrant changes in policy concerning the service, nor in changes in the broad approach to the service model.

What were the financial costs of the service?

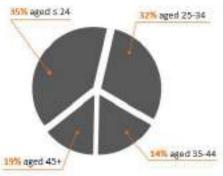
Due to increased set-up and equipment costs and the unanticipated quantity of time taken to plan and implement the service, the cost of the service has been higher than originally budgeted. The additional costs have been met by in-kind contributions from the CanTEST coalition members, evaluation team and ACTGAL. The ACT Government has committed to meeting the shortfall on a range of these costs.

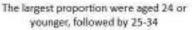
Should the service continue and, if so, what changes in the program and its contexts are desirable?

The CanTEST service is delivering drug checking and health interventions, often to people who have not previously discussed their drug use with a health professional. Half the drugs tested are found to be different to what the service user expected. The service is associated with behaviour change such as discarding, non-use and harm reduction behaviours with use. We have identified a number of strengths of the program that should be retained as well as potential program improvements to consider in future design and delivery.

SERVICE VISITS AND SERVICE USER DEMOGRAPHICS







RECENT DRUG USE – PRE-TEST SURVEY RESPONDENTS

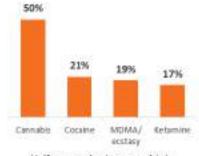


The majority reported never previously accessing a healthcare worker for information or advice about drug use

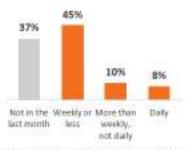
DRUG CHECKING SERVICE VISITS



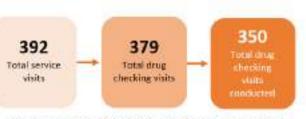
Two-thirds reported using illicit substances in the past month



Half reported using cannabis in the past month



The largest proportion reported using drugs (excluding cannabis) 'weekly or less' in the past month



The service conducted 350 drug checking visits. In cases where the service was due to close soon, drug checking could not be conducted

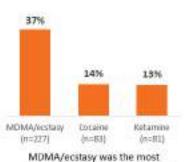


626 samples were brought in for testing

614

614 samples proceeded to drug checking

EXPECTED DRUG & SAMPLE ASSESSMENT



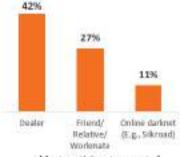
common expected drug, followed by cocaine and ketamine

41%

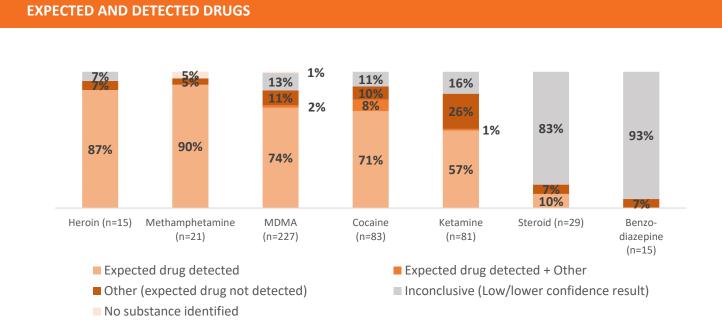
Almost half of samples were submitted in powder form



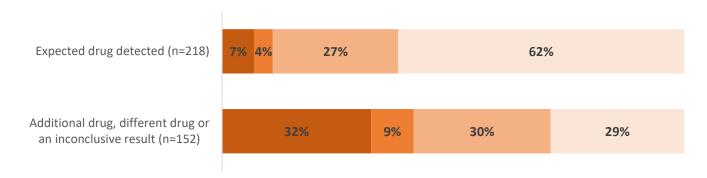
The majority reported that they had tried the drug type before



Most participants reported sourcing their drugs from a dealer



POST-DRUG CHECKING LIKELIHOOD OF USE



On a scale of 0 to 10, how likely is it that you will use it now that it has been tested?



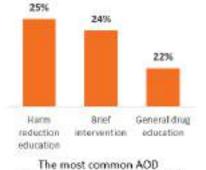
AOD AND HEALTH INTERVENTIONS



Two-thirds of service users accepted an AOD and/or general health intervention



 1,006 AOD / general health Interventions were provided across all service users



The most common AOD interventions provided were brief intervention, general drug education, and harm reduction education



The service facilitated access to naloxone for 61 service users to take away

2 BACKGROUND

Illicit drug markets are unregulated, meaning that the type and quality of substances available can vary widely (Cole et al., 2011, Peck et al., 2019, Giné et al., 2014). Variability in illicit drug composition (e.g., dose, presence of adulterants) can elevate risk of harm, including overdose (Cole et al., 2011). Without objective information on drug contents, people have limited capacity to understand potential risks of use and to modify behaviour accordingly.

Drug checking services (also known as pill testing services) undertake chemical analyses to provide qualitative (i.e., presence or absence of substance) and/or quantitative (i.e., amount of a substance) information on contents of illicit substances. They are established with the aim of reducing harm related to drug use and returning findings of chemical analyses to the service user or general public. Drug checking services also often provide tailored interventions about reducing the potential harms associated with drug use, and contribute information to organisations that monitor illicit drug trends (Barratt and Measham, 2022). There are a range of drug-checking service models providing different levels of access to the public, including fixed-site, as well as mobile, event-based and mail-in services.

Despite a range of drug checking services operating globally, the evidence base for drug checking is still developing, and few independent evaluations of services are published.

Drug checking services in the ACT

The first government-approved drug checking trial in Australia was conducted in 2018 at the Groovin the Moo festival in Canberra by Pill Testing Australia (Makkai et al., 2018). A second trial was funded and conducted by Pill Testing Australia at the Groovin the Moo festival in 2019 and independently evaluated by ANU with ACT Health funding (Olsen et al., 2022b, Olsen et al., 2019). These festival-based services aimed to advise service users accessing the services about the contents of the substances and deliver harm reduction information, while also providing data on the drugs in circulation to health and law enforcement agencies. These trials occurred with the support of local stakeholders, including territory government, police, public health, and festival management. An external, independent evaluation of the 2019 ACT Pill Testing Trial was conducted by ANU (Olsen et al., 2022b, Olsen et al., 2019) and outcomes led to the development of "The Festivals Pill Testing Policy" (ACT Health, 2020). At the time of writing this report, there were no government sanctioned drug checking services operating outside of the ACT in Australia.

Building on the promising results of two festival-based trial projects (Olsen et al., 2022b) and strong community support (McAllister and Makkai, 2021), the ACT Government has supported the establishment of a six-month pilot of a fixed-site health and drug checking service, CanTEST, in Canberra from July 2022 to January 2023, the period covered by this evaluation report. (In January 2023, the pilot service was extended, by the ACT Government, to August 2023, but that did not affect the period covered by this evaluation report). A consortium of organisations has developed and implemented the service; Directions Health Services is delivering the service in conjunction with Pill Testing Australia and the Canberra Alliance for Harm Minimisation and Advocacy.

Given the need for further evidence on the feasibility, effectiveness and outcomes of drug checking services in Australia, an external independent evaluation of the CanTEST pilot service was requested for tender by ACT Health. The Australian National University (ANU), in collaboration with the National Drug and Alcohol Research Centre at UNSW Sydney and the University of Tasmania, are conducting the independent evaluation.

An interim report, assessing the service after three months of operation, was released in late 2022 (Olsen et al., 2022a).

3 EVALUATION FRAMEWORK AND METHODS

The purpose of the evaluation is to: document the development and implementation of the pilot drug checking service; document acceptability and feasibility of the drug checking service; identify outcomes of service provision; and make recommendations for future service provision. A further aim is to develop a strong evaluation framework for future evaluations of drug checking services in Australia, building on prior evaluations of festival-based services (Olsen et al., 2019, Makkai et al., 2018).

3.1 EVALUATION MODEL

This evaluation applies the Utilisation-focused Evaluation model. Utilisation-focused Evaluation is defined as follows:

Program evaluation is the systematic collection of information about the activities, characteristics, and results of programs to make judgements about the program, improve or further develop program effectiveness, inform decisions about future programming, and/or increase understanding. Utilization-focused program evaluation is evaluation done for and with specific intended primary users for specific, intended uses. (Patton, 2008)

The Utilisation-focused Evaluation model has been assessed as being one of the nine 'Best approaches for twenty-first-century evaluations' (Stufflebeam and Coryn, 2014) using the international program evaluation standards (Yarbrough et al., 2011) as the assessment criteria.

3.2 EVALUATION QUESTIONS

The following questions were developed by the evaluation team to guide the evaluation:

- 1. To what extent was the service implemented as intended?
- 2. What are the key characteristics of those who accessed the service?
- 3. What service elements were needed and accepted by service users?
- 4. How was the service received by other key stakeholders?
- 5. To what extent did the service produce valuable and timely information about illicit drug availability and harms in Canberra, and how was that information used?
- 6. To what extent did the service result in service users' attitudinal and/or behavioural change related to illicit drug use?
- 7. Is the operational data sufficient and of quality to build an on-going minimum data set that would inform both routine monitoring and research activity?
- 8. Did the service have any unintended consequences, either positive or negative? If so, what were they?
- 9. What were the financial costs of the service?
- 10. Should the service continue and, if so, what changes in the program and its contexts are desirable?

3.3 EVALUATION METHODS AND INSTRUMENTS

All survey data collection instruments were co-designed by the evaluation team and the CanTEST service. This included development of survey questions and piloting of these data collection instruments before the service opened. The data collection instruments build on previous drug checking reporting in the festival setting (Olsen et al., 2019, Makkai et al., 2018). The chemists employed by the service designed protocols relating to chemical analyses. Operational, survey and analytical data were recorded electronically via REDCap (Research Electronic Data Capture), a secure web-based software platform (Harris et al., 2019, Harris et al., 2009) hosted by Directions Health Services. A range of data sources were used to collect empirical evidence on the processes and outcomes of the CanTEST service over the six month pilot period. Data collection tools are available in Chapter 8 Appendices.

3.3.1 Service operational data and documentation

Staff record an array of information about the visit, including number of samples tested and details of interventions delivered. The service also supplies the evaluation team with information about financial costs and other service activities (trainings, meetings, community notices).

3.3.2 Service chemical analysis data

Service data include the results from chemical analyses of samples. The service itself can undertake up to three types of testing within a visit: Fourier transform infra-red (FTIR) spectroscopy; ultra-performance liquid chromatography-photodiode array (UPLC-PDA); and fentanyl test strips (FTS). FTIR is conducted for all samples submitted; UPLC and FTS are optional. Details of how these testing approaches work are outlined in Section 5.1 (Panel 1). In this report, we only discuss specific substances identified as 'detected drug(s)'. Detected drugs are identified where:

- 1. FTIR 'first match' identifies the drug with 'high confidence' (score of 750 or higher) and/or
- 2. UPLC-PDA identifies the drug

FTIR results that are not 'high confidence' or do not have supporting UPLC-PDA results are categorised as 'low/lower confidence'. For samples where analysts can't identify a drug with high confidence, service users are provided with the results and told that the substance can't be identified. All analytical information is provided along with harm reduction information.

FTS is also offered to service users. A single line indicates that fentanyl or a fentanyl analogue has been detected.

3.3.3 Service pre- and post-drug checking survey completed by primary service users during their visit As part of service data collection, primary service users were asked whether they consented to completing two brief electronic surveys about their visit while in the service. One survey is completed prior to chemical analyses of samples (hereafter 'pre-test survey'); the other subsequent to receipt of the results of chemical analyses and delivery of any AOD intervention(s) (hereafter 'post-test survey'). Questions are self-complete or administered by service staff depending on the preference of the primary service user.

The pre-test survey covers details such as perceived contents, previous use, purchasing and concerns about the drug(s) for checking; intentions around use of the drug(s) for checking; socio-demographics; broader substance use; and previous experience accessing drug checking and other healthcare services for information about drugs. Some of these questions are only asked of service users on their first visit to the service (as multiple visits are linked by the unique ID where accurately provided).

The post-test survey covers details such as information received from the service on the chemical analysis results and on harm reduction behaviours; intention to use the drug and share the drug checking results with others; and perception of the service and intention to use the service in future.

Non-consent to these surveys did not preclude accessing the service. The evaluation team access these service data in order to record and assess the service. In the pilot period, 298 primary service users completed the pre-drug checking survey, and 243 completed the post-drug checking survey (see Section 5.1 for further information).

3.3.4 Evaluation follow-up survey completed by primary service users subsequent to their visit

Primary service users were asked if they consented to be contacted by the evaluation team for a follow-up online quantitative survey and/or qualitative interview (see below for information on the latter). The invitation to complete the follow-up survey was sent via email and/or mobile approximately one week after the visit, and with three subsequent reminders. The follow-up survey covers details such as whether the primary service user: used the drug subsequent to checking; shared the chemical analytic results with others; gained knowledge about the effects of the drug from accessing the service; general changes in substance use

after accessing the service; and perception of the service and intention to use the service in the future. Open ended responses are also sought on how the service could be improved and any other feedback. In the pilot period, 82 primary service users completed the follow up drug checking survey (see Section 5.1 for further information).

3.3.5 Evaluation follow-up qualitative interviews with primary service users subsequent to their visit As above, primary service users were asked if they consented to being contacted by the evaluation team for a telephone qualitative interview. The invitation to complete the follow-up interview was sent via text, with three subsequent reminders if there was no response. The follow-up interview asks questions about the primary service user's: expectations of the service; their experience of the service; whether they used the drug subsequent to checking or shared the chemical analytic results with others; gained knowledge about the effects of the drug from accessing the service; general changes in substance use after accessing the service; and perception of drug checking services and intention to use the CanTEST service in the future. The interviews were conducted by phone and were audio recorded.

Thirty-seven service users consented to a follow-up interview and 23 participated in an interview during the pilot period. Eleven identified as male, 10 identified as female, one as non-binary and one undisclosed gender. Ages ranged from 20 to 56 years of age. Most lived in Canberra, with five from New South Wales and two from Victoria. All reported previous experience with drugs before attending the service and two were currently injecting drugs.

3.3.6 Evaluation follow-up qualitative interviews with key stakeholders

Key stakeholders were interviewed after the first six months of operation. Representatives from CanTEST, ACT Policing, a co-located service, ACT Ambulance and the ACT Government Analytical Laboratory (ACTGAL) were approached by the evaluation team to consent to interviews. The follow-up interview asks questions about the stakeholder's: expectations of the service; their professional experience of the service; general perception of drug checking services and views on the operation of the CanTEST service in the future.

Eleven stakeholders were interviewed on video call or via email exchange. Seven CanTEST staff were interviewed, as well as representatives from the aforementioned services/organisations.

3.3.7 Other data considered but not included in this evaluation report

Several data sources were considered for inclusion in this report but were not feasible to include at the time of publishing this report for reasons outlined below. We encourage study of these data where possible in future.

Administrative data. Analysis of administrative data from health (e.g., drug-related emergency department presentations, drug-related hospitalisations) and law enforcement (e.g., drug seizures) were considered for inclusion in this report. Significant lags in administrative data collation and access precluded such study for the purpose of this report (Peacock et al., 2020).

Illicit Drug Reporting System (IDRS) and Ecstasy and Related Drugs Reporting System (EDRS). The IDRS and EDRS include annual interviews with sentinel samples of people who regularly inject drugs and people who regularly use ecstasy and/or other illicit stimulants, respectively, recruited from all Australian capital cities (Sutherland et al., 2022a, Sutherland et al., 2022b). Questions around accessing CanTEST (including barriers to access for those who had not used the service) were approved for inclusion in the interview schedule for the ACT sample in 2022 and 2023 however data are collected April-July and thus fell immediately prior and subsequent to the pilot period.

3.4 ETHICS AND CONFIDENTIALITY

Ethics approval was received from the ACT Health Human Research Ethics Committee (2021.ETH.00197) to access operational and service data and to collect follow-up survey and interview data from service users and stakeholders.

All survey data were recorded electronically via REDCap (Research Electronic Data Capture), a secure webbased software platform (Harris et al., 2019, Harris et al., 2009) hosted by Directions Health Services.

Primary service users were asked to provide a unique but non-identifying code name so as to link visits at the service user level over time and preserve confidentiality for research and evaluation purposes. Service users were asked if they would consent to a follow up evaluation survey and/or interview; contact details were only collected from those who consented to follow-up. Data are only reported at the aggregate level and any potentially identifying information is not reported. Qualitative data were audio recorded and transcribed. Audio recordings were destroyed after the transcripts were checked for accuracy. Contact information is stored separately to all other data and can be accessed by the evaluation team only.

4 ANALYSIS AND REPORTING

This study employs a convergent mixed methods design: quantitative and qualitative methods are considered complementary during study design, data collection, and data analysis. Our mixed methods approach is exploratory in that we aimed to describe and assess processes embedded within the design and enacted through the implementation of the service, as well as describe and assess outcomes of the service. **Table 1** shows the data sources used to address the evaluation questions for the purpose of this report.

Quantitative data are reported as descriptive statistics: percentage and number for categorical data; mean and standard deviation for normally-distributed continuous variables; and median and interquartile range for skewed continuous variables. Findings are reported as complete-case (i.e., missing data excluded) unless otherwise specified; this means that the denominator may vary slightly between data points. Findings may be reported of different groups (e.g., number of service users, visits, primary service user, samples or people who completed surveys); this is made explicit throughout. Some primary service users attended the service on multiple occasions; please note that these are not de-duplicated in the count of primary service users unless otherwise indicated.

Qualitative data collected from the follow-up evaluation survey was analysed using content analysis via a word cloud; the more a specific word appears in the data, the bigger and bolder it appears in the word cloud visualisation. Follow-up interviews and stakeholder interviews were analysed using descriptive thematic analyses to document and describe who was involved, what was involved and perceptions of events in relation to the CanTEST service.

Please note that quantitative data has undergone further processing relative to historical reporting by the evaluation team and the service, and thus numbers may not always align. There were also minor modifications to data collection instruments over time; these are noted within the report where they may impact data interpretation.

Table 1. Data sources used to address evaluation questions in the current report

	Service operational data	Service drug chemical analysis data	Service pre-/post- test primary service user survey within visit	Evaluation follow-up service user survey after visit	Evaluation follow up service user qualitative interviews after visit	Evaluation stakeholder qualitative interviews
1. To what extent was the service implemented as intended?	\checkmark		\checkmark	\checkmark		\checkmark
2. What are the key characteristics of those who accessed the service?			\checkmark			
3. What service elements were needed and accepted by service users?			\checkmark	\checkmark	\checkmark	\checkmark
4. How was the service received by other key stakeholders?						\checkmark
5. To what extent did the service produce valuable and timely information about illicit drug availability and harms in Canberra, and how was that information used?	\checkmark	\checkmark			\checkmark	\checkmark
6. To what extent did the service result in service users' attitudinal and/or behavioural change related to illicit drug use?			\checkmark	\checkmark	\checkmark	
7. Is the operational data sufficient and of quality to build an on-going minimum data set that would inform both routine monitoring and research activity?	\checkmark					\checkmark
8. Did the service have any unintended consequences, either positive or negative? If so, what were they?	\checkmark				\checkmark	\checkmark
9. What were the financial costs of the service?	\checkmark					
10. Should the service continue and, if so, what changes in the program and its contexts are desirable?	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark

5 FINDINGS

5.1 TO WHAT EXTENT WAS THE SERVICE IMPLEMENTED AS INTENDED?

The service aimed to provide free harm reduction support to people who use drugs through the chemical analyses of service users' drugs and the provision of information, AOD and health interventions. Evaluation results show that the service is delivering drug checking and health services to people who use drugs. CanTEST runs every Thursday and Friday for 6 hours each week. A total of 498 service users visited the site between 21st July 2022 and 20thJanuary 2023 (includes those visiting the service for drug checking and those visiting for other reason, for example, being curious about the service or wanting to access other health or AOD services). In the context of the pilot, the original service model has changed in minor ways. As detailed in the interim report (Olsen et al., 2022a), service planning and implementation took longer and has been more costly than anticipated, in part because of the COVID-19 pandemic. The service has developed practices and protocols aligning the three collaborating organisations and the inter-disciplinary staff. Service users and stakeholders report that the model is delivering quality information and care however the current service location and opening hours are limited and the service model should be revised to ensure optimal impact.

IMPLEMENTATION

There was significant advocacy work, including volunteer-run festival-based drug checking services by Pill Testing Australia, in the years leading up to the ACT Government 2021 commitment to fund a fixed-site pilot. Upon the ACT Government announcement, a consortium of organisations (Pill Testing Australia, Directions Health Services and Canberra Alliance for Harm Minimisation and Advocacy) submitted a proposal for consideration. Negotiation with the Government included assessment of costs, what services could be provided, service model staffing and potential locations (**Figure 1**). The result is a drug checking service in the City Community Health Centre at 1 Moore Street in the Canberra civic area. During the pilot period the service was to operate at specified regular times each week (Thursday 10am-1pm and Friday 6pm-9pm) and to be staffed by a variety of professionals. Staff at each shift include one AOD counsellor, one primary health nurse, one peer educator, two analytical chemists and a medical practitioner on-call. A senior chemical analyst and medical specialist are available on-call to provide feedback on analytical results of clinical concern (novel products for which there may not be community familiarity, potentially hazardous doses, and dangerous mixtures) as well as to assess whether ACT Health should be alerted on any drugs of concern. Directions Director of Service Delivery or CEO provides management oversight.

The overall aim of the service is to provide discreet and private advice to people wishing to have drugs tested and as such, CanTEST is free and confidential (**Figure 2**). Drug checking is offered on a range of drug types, in the form of pills, capsules, powders, crystals and liquids. Some substances such as plant material, blotters or dilute solutions could not be tested during the pilot period using the methods supplied in the service (**Panel 1**). Drug checking requires a very small scraping/sample of the pill or drug (as little as a few mg) for analysis. Service users can bring in up to five samples for testing. The drug checking process can take around 20 minutes if both FTIR and UPLC-PDA analysis is conducted, but can take longer depending on the substance and number of service users waiting. Once the drug checking is complete, the analysts discuss the results with the service user and an AOD counsellor and/or peer educator to provide service users with information about the results and discuss the risks associated with consuming the substance/s detected and means to reduce harms, as well as any other concerns service users may have. Service users can also receive non-drug checking health services, such as discussing any health needs, with the service nurse (**Figure 3**).

The CanTEST team works collaboratively, with AOD counsellors and peer educators taking service users from entry to exit. CanTEST nurses are able to provide advice and care across a broad range of health concerns

ranging from alcohol and drug assessments and harm reduction through to wound care and sexual health screening. The analytical chemists test the substances and provide information about testing procedure as well as quantitative and qualitative information about the contents and purity of drug samples. Peer educators and AOD counsellors often work with the chemists to interpret analytical results and then provide advice on drug interactions, evidence-based strategies to reduce harm associated with drug use and overdose prevention as well as support services available (**Panel 2 and 3**). Chemists also collect samples for further detailed laboratory analysis off-site at the ANU Research School of Chemistry and ACTGAL.

CanTEST has a protocol for identifying high-risk substances and notifying ACT Health. Upon notification of a potentially high-risk substance, ACT Health convenes relevant key experts to assess the notifications and determine whether public health risk communications are required. As necessary, public drug alerts or alerts for the health or AOD sector and/or clinical first responders will be prepared. Several community notices have been issued by CanTEST to provide targeted information for the community and service clients on particular substances identified. These notices also encourage the community to bring substances in to CanTEST for checking. Alongside the development of risk communications, the CanTEST Drug Early Warning Protocol was developed in conjunction with the ACT Government, which helps to identify the emergence of drugs of concern and potential changes in the local/regional drug market. One drug alert was issued by the ACT Government during the first six months of the service for "metonitazene" – a strong opioid being sold as "oxycodone"; two community alerts were also issued (see section 5.5 for further information).

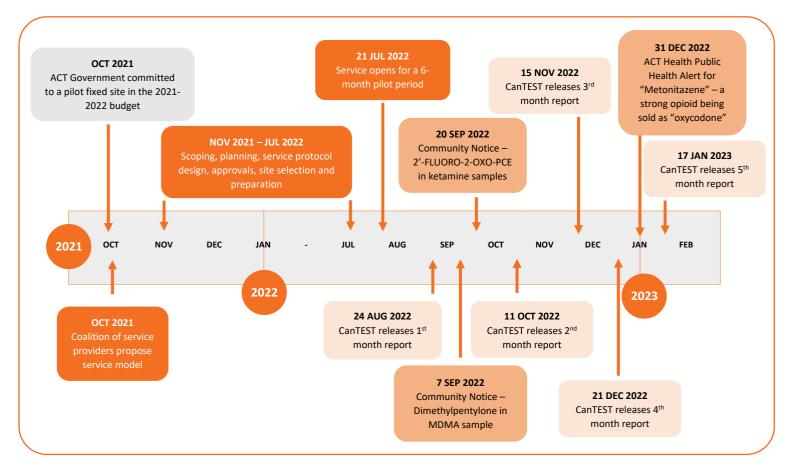
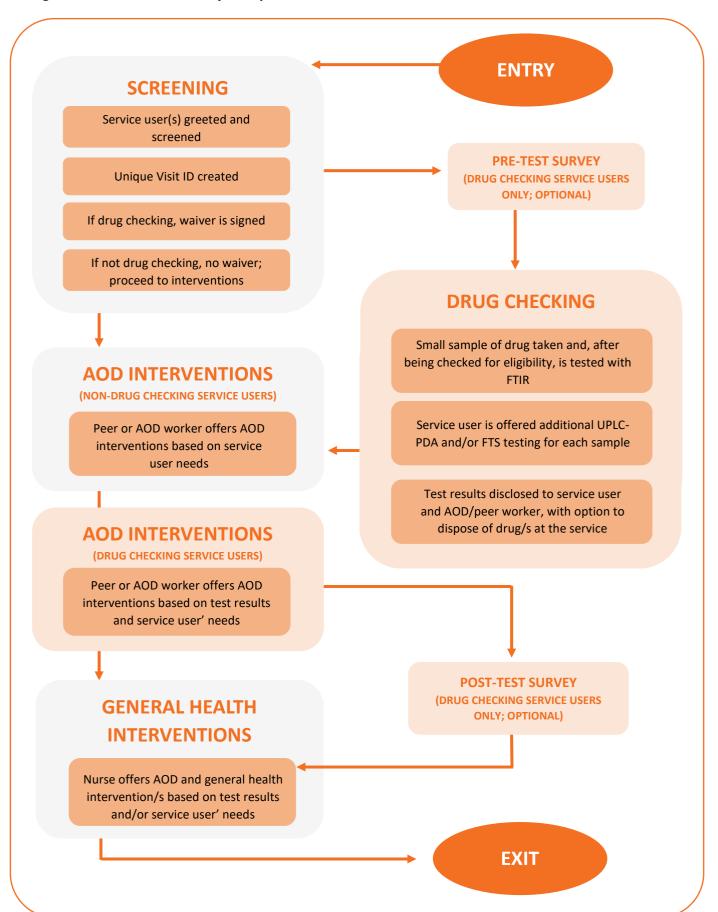


Figure 1. CanTEST implementation timeline first six months of operation

Figure 2. CanTEST service user journey



Panel 1. What chemical analysis is conducted on samples?

Fourier transform infra-red (FTIR) spectroscopy can identify one or more major drug components (including adulterants) in a sample. FTIR is the same technology used to test drugs at festivals and in forensic laboratories internationally. It works by shining infrared light on a sample and assessing how the light is absorbed by the sample. The pattern of absorption is used to identify the drug components by comparison to a large library of FTIR spectra.

FTIR has an estimated limit of detection of 5%, which can limit ability to identify drugs present in low proportions. Dilute solutions, blotters and plant matter (e.g., cannabis) cannot be tested.

FTIR is conducted for all eligible samples submitted. The service records results associated with the first two matches in a sample. Service users are informed of the components identified and given a rating of confidence in this identification for each component. Confidence ratings are based on the associated score for each component:

High confidence: score of 750 or more Lower confidence: score of between 600-750 Low confidence: score of 600 or less

Only high confidence results are mentioned by name in this report.

Ultra-performance liquid chromatography-photodiode array (UPLC-PDA) uses chromatography to separate and identify drug components based on retention time and UV-visible spectrum. The signal intensity can be used to establish drug purity for targeted drugs most likely to be presented.

In addition to FTIR, service users can opt to have their sample tested with UPLC-PDA to gain further information about the contents and receive purity analyses on 10 targeted drugs. Sample preparation and analysis for this approach typically takes an additional 10 minutes but provides additional information not available from FTIR analysis. Purity is quantified as a percentage; service users are informed of the rating of purity, defined as:

High purity: greater than 66% Lower purity: 33-66% Low purity: less than 33%

Fentanyl Test Strips (FTS) are small immunoassay strips which are dipped in water mixed with the drug sample. They test for fentanyl and fentanyl analogues, showing one line for a positive result (i.e., fentanyl present) or two lines for a negative result. There are some limitations to FTS use. They cannot determine the amount of fentanyl present, nor can they detect all fentanyl analogues. There is also a potential for false or invalid results.

Service users can also opt to have their sample tested with FTS.

In all cases, clients are informed of the limitations and uncertainties associated with the service analytical methods.

Quality control procedures mean that the by-products of all substances provided for checking by FTIR are retained for later analysis via gas chromatography–mass spectrometry (GC-MS) by ACTGAL. Selected UPLC-PDA and FTS samples are also retained for GC-MS checking at ANU, or occasionally analysis by other techniques such as liquid chromatography-mass spectrometry (LC-MS) or nuclear magnetic resonance (NMR). The results of this drug checking are routinely reviewed to ensure the quality of checking provided to service users.

Panel 2. What AOD interventions are offered at the service?

AOD Interventions: Alcohol and other drug interventions are provided by service staff and are offered to all service users, depending on their needs and preferences. Interventions may comprise of:

- Brief interventions: informal counselling which may include brief assessment, motivational interviewing, goal setting, de-escalation and safety planning, with a focus on increasing client capacity to mitigate harms associated with substance use or risky behaviours
- **General drug education***: evidence-based information on drug/s, possible drug effects and interactions
- Harm reduction education*: strategies and planning to increase clients' capacity to reduce and manage risks associated with partying and / or recreational drug use, or other drug/substance use, including information on safer administration and use, possible effects, risks and less safe combinations
- **Overdose prevention education***: information on overdose risks, preventing overdose, recognising and responding to possible overdose
- Naloxone training and facilitating access to Nyxoid*: in addition to overdose prevention education, provision of training on the use of Naloxone to reverse a possible opioid overdose and facilitating access to Nyxoid (take-home nasal Naloxone)
- Safer injecting education*: harm minimising education on safer injecting relating to vein care, bloodborne virus (BBV) prevention and treatment, how to access and use sterile equipment, equipment types, injecting risks and other mitigation strategies
- Harm minimisation / health information resources supplied*: provision of resources (e.g., brochures, websites, handouts, condoms, water supplied to client)
- Informal referral*: discussion of a relevant service and provision of information to support the client to access / self-refer
- **Formal referral***: referral made for client to another service by staff member (whether by phone, email, form)

Note: * indicates intervention is offered both as AOD interventions and general health interventions. If the same AOD and general health intervention type is coded for one visit (e.g., 'health information resources supplied'), these are counted separately, as they are unique interventions delivered by different staff members (peer/AOD worker and service nurse/doctor, respectively).

Panel 3. What general health interventions are offered at the service?

General Health Interventions: Other health interventions are provided by the service nurse or doctor and are offered to all service users. Interventions may comprise of:

- General health screening, assessment, and intervention
- Informal counselling which may include motivational interviewing, information and education, goal setting, de-escalation and safety planning,
- Health promotion and education with a focus on increasing client capacity to make health-promoting choices and mitigate harms
- Administer First Aid and CPR and call an ambulance when required
- Minor medical treatment, for example, wound treatment
- Sexual health brief intervention including sexual health treatment or information and education, including providing resources
- Mental health brief intervention, mental health screening, information and education, resources
- General information such as person centred counselling or coaching
- Health promotion and education on a broad range of topics to better resource the client, including providing resources, to promote health-minded decision making
- **STI screening** for sexually transmitted infections

A total of 498 service users visited the site between 21st July 2022 and 20th January 2023. This includes those visiting the service for drug checking and those visiting for other reasons (e.g., curious, wanting to access other health or AOD services). Of these, 481 service users (97%) visited the site for the purposes of drug checking, and 437 service users (91%) received the drug checking service. As per the site protocol, 100% of service users who received the drug checking service signed the site waiver form.

Of the 481 who visited for drug checking, 44 service users (9%) were not able to receive drug checking service due to the service being too busy (n=29, 6%), the service closing (n=13, 3%) or other reasons (n=2, <1%). Of these, 20 service users received another service instead, such as AOD and/or health intervention/s. A total of 465 service users received any service during their visit (including drug checking, AOD/health interventions and following up on previous drug checking results (**Figure 3**).

Source: Service operational data

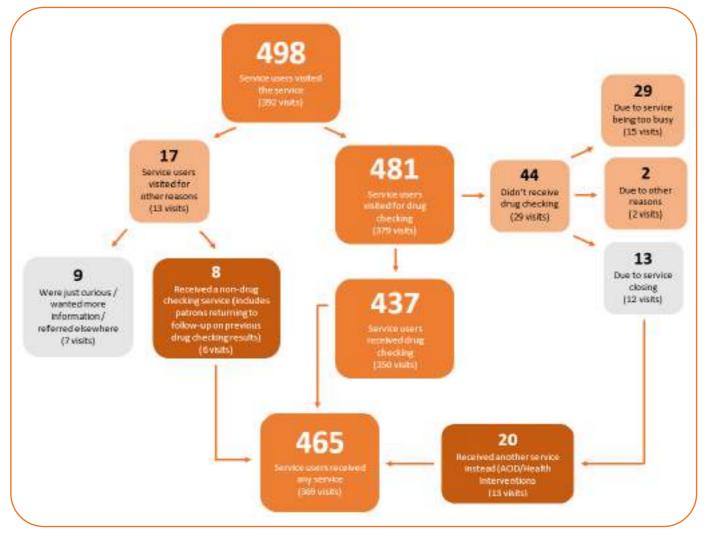


Figure 3. CanTEST service flow chart: 21st July 2022 to 20th January 2023

Of the 17 service users who did not visit the service for drug checking, 9 were curious, wanted more information about the service or were referred elsewhere. Other reasons included enquiring about previous drug checking results (n=6), obtaining overdose prevention advice (n=1), and advice on drug treatment (n=1).

Source: Service operational data

SERVICE VISITS - CONTINUEDn

The number of service visits per week varied over the 6-month pilot, with an average of 15 (range 4-62) visits per week. Service opening hours remained the same over the pilot period with the exception of the weekend of the 2022 Spilt Milk festival when CanTEST opened 10am-4pm Thursday 24th and 3pm-9pm Friday 25th November to accommodate an expected increase in demand. There was a marked increase in service visits during the weekend of the Spilt Milk Festival; smaller increases were observed in some instances following communication of results or alerts (**Figure 4**).

Source: Service operational data

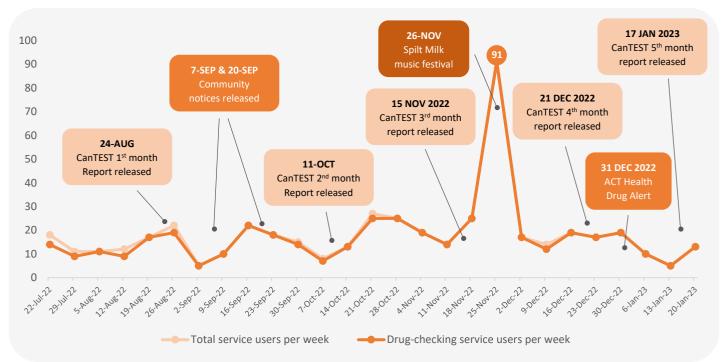


Figure 4. Number of service users per week by total and drug checking only

Note: 22nd September was an unexpected public holiday for Queen's funeral, but the service remained open. This reporting period ends on 20th January 2023.

Source: Service operational data

SURVEY DATA COLLECTION

As of 20 January 2023, 243 of the 299 primary service users who consented to the pre- and post-test surveys completed both the pre-test and post-test survey (82% completion rate), with 82 also completing the follow-up survey (49% completion rate, of the 168 who consented to the follow-up survey; **Figure 5**).

The median timeframe between initial service visit and completed follow-up survey was 14 days.

Refer to section 3.3.3 above for details as to the content of each survey.

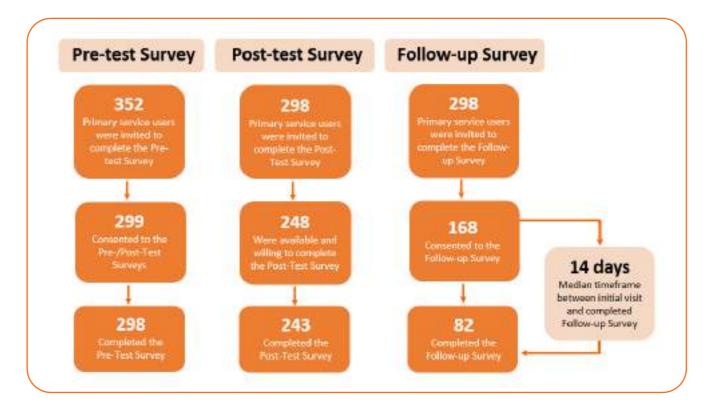


Figure 5. Primary service user completion of pre-test, post-test and follow-up surveys

Source: Service operational data; service pre-test survey; service post-test survey; follow-up survey

5.2 WHAT ARE THE KEY CHARACTERISTICS OF THOSE WHO ACCESSED THE SERVICE?

A total of 498 service users visited the site during the first six months of operation; most were young (aged 34 years and under), male identifying adults from the ACT. This is an older group of people and more males than seen at Canberra festival-based drug checking pilots (Olsen et al., 2019). Relatively few people who inject drugs are accessing the service and the service should continue its work to reach the Canberra community of people who inject drugs.

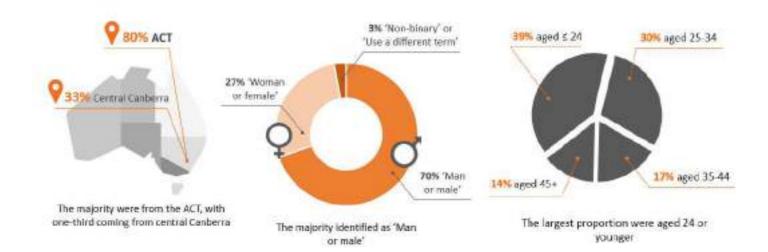
SERVICE USER DEMOGRAPHICS

The majority of primary service users who completed the service pre-test survey resided in the ACT (80%, n=204), and one-third identified as being from central Canberra (33%, n=85).

The proportion of patrons visiting from outside the ACT rose from 12% to 20% between the interim and final reporting periods, and those visiting specifically from NSW doubled (7% at interim report, 14% at final report). This may be related to the influx of service users during the Spilt Milk Festival weekend.

The median age of primary service users was 28 years (mean=31). Over one-in-three (39%) were aged 24 or younger (n=106), 30% were aged between 25-34 (n=80), 17% were aged 35-44 (n=46), and 14% were over 45 (n=38). The majority of primary service users identified as 'man or male' (70%, n=182).

Source: Service pre-test survey of primary service users



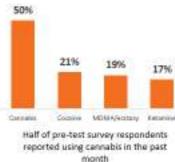
SERVICE USER DRUG & HEALTHCARE ACCESS HISTORY

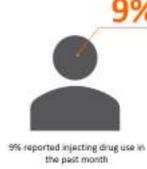
Sixty-six per cent (n=169) of primary service users reported using any illicit drugs or pharmaceutical drugs like benzodiazepines or pharmaceutical opioids in the past month. Half of primary service users (50%, n=140) reported using cannabis in the past month, followed by cocaine (21%, n=58), ecstasy/MDMA (19%, n=53) and ketamine (17%, n=46). Respondents typically used drugs (excluding cannabis) on a 'weekly or less' basis in the past month (45%, n=106). Just under one-in-ten (9%, n=22) reported injecting a drug in the past month.

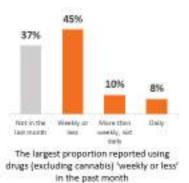
Most visits were recorded as individual people (76%, n=289); 24% (n=90) were groups. This is an underestimate of group attendance as people were encouraged to participate in service data collection separately.

Source: Service pre-test survey of primary service users









reported using illicit substances in the past month

Two-thirds of primary service users

Two-in-three (66%, n=170) had not tested drugs before in Australia. Those who had tested their drugs before predominantly used colorimetric reagent tests (23%, n=68), which are typically used in the absence of specialist advice and education and with limitations around accuracy and type of information yielded (Peacock et al., 2021).

Over two-thirds (70%, n=168) reported never previously accessing a healthcare worker for information or advice about drug use.

Three-in-four (74%, n=187) reported never having experienced a bad effect from drugs other than alcohol where they received medical assistance.

Source: Service pre-test survey of primary service users



Two-thirds of primary service users had never tested drugs before in Australia



The majority reported never previously accessing a healthcare worker for information or advice about drug use



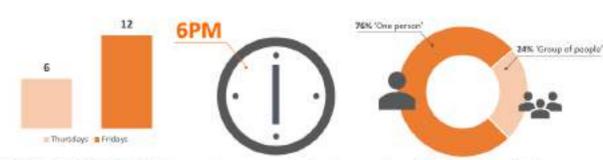
Three-quarters reported never experiencing a bad effect from drugs (one that they received medical assistance for)

5.3 WHAT SERVICE ELEMENTS WERE NEEDED AND ACCEPTED BY SERVICE USERS?

Open for six hours across two days, the Friday session (6pm-9pm) was more popular than the Thursday session (10am-1pm). Most attended the service for drug checking but there were also people who were curious about the service or wanting to access other health or AOD services. A total of 626 samples were tested over the six months and 1,006 AOD and/or general health interventions were provided across all service users.

OPERATIONAL STATISTICS





60 primary service users returned for more than one visit (noting this is likely an underestimate)

Fridays received twice as many visits on average than Thursdays for service users wanting drug checking



The majority of service users visited by themselves rather than in groups

Sixty primary service users returned to the service for more than one visit. This is an underestimation of return visits as it is based on records linked by the optional 'personalised ID' provided by the patron at each visit, and some people opt against creating a personalised ID, or providing it on return.

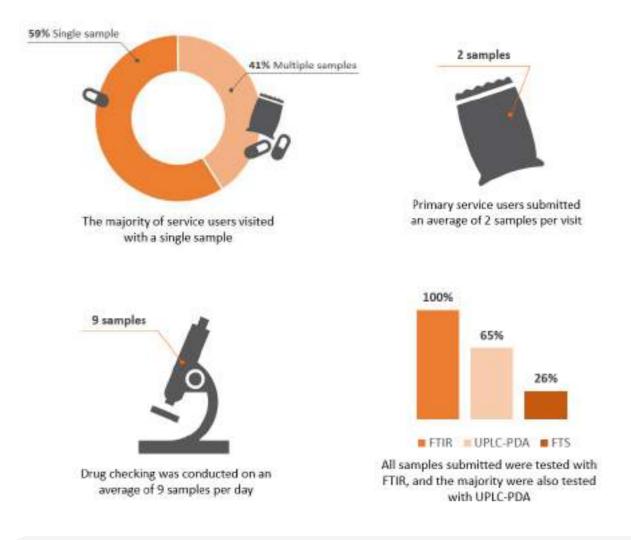
Of the total 379 drug checking visits, the majority 61% (n=230) occurred on a Friday. The average number of drug checking visits was twice as high on Fridays (mean=12) than Thursdays (mean=6). This difference is mainly due to an increase in drug checking visits (n=71) on Friday 25th November – the Friday preceding the 2022 Spilt Milk festival in Canberra.

The most common hour at which visits began within standard service hours (excluding extended hours for the 2022 Spilt Milk festival) across the two days was Fridays, 6PM (24%, n=80 visits), followed by Fridays, 7PM (19%, n=64 visits each). The least common hour was Thursdays, 1PM (2%, n=7 visits).

Most visits were recorded as individual people (76%, n=289); 24% (n=90) were groups. This is an underestimate of group attendance as people were encouraged to participate in service data collection separately.

Source: Service operational data

DRUG CHECKING



There were 626 drug samples for which drug checking was requested over the six-month period.

Of these, 12 samples did not proceed to drug checking (five samples were ineligible, four could not be tested due to service closing, one patron did not want to wait for testing, and two were not presented / declined to submit for analysis).

The remaining 614 samples were submitted for checking and tested with FTIR. There were 401 samples where UPLC-PDA checking was also conducted (65%) and 156 samples where fentanyl test strips were used (26%).

The average number of samples submitted per visit was 2 (median=1, range=1-5). Note that the maximum number of samples that can be tested per person per visit is five. At particularly busy times the number of samples each service user could test was also restricted.

Source: Service operational data

Follow-up interview data with service users provides further insights into the reasons people accessed the service. As expected, many interviewees visited CanTEST to reduce the risks of drug taking for themselves, among friends and the wider community.

...I was going off to a four day festival over here and I had bought some for myself and my friends ... because I didn't want to provide stuff to my friends that was potentially dangerous or anything like that. (Female, aged 20)

Oh, I think it's a really good way for the community to stay healthy. And, um, an interesting thing, and I just wanted to check it out. (Female, aged 20)

Interest, especially in harm reduction information and the analytical technology, were other reasons stated for accessing CanTEST. Another key reason was people's desire to support the service pilot.

... it's just also it's hard to find places that aren't biased ... I'm struggling to find good places to get this information [about harm reduction]. (Female, aged 22)

I mean I guess because I think it's a really beneficial service, especially when, you know, like getting drugs, you never really know who you're getting them from. And especially things like powders and pills, like you don't know what they've been cut up with. And you hear all these horror stories and it just seems like the fact that it's easy and free and in a non-judgmental environment, it's kind of like, why wouldn't you find out what you're about to put in your body? (Female, aged 33)

Source: Evaluation qualitative interviews with primary service users

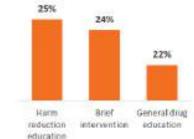
AOD & GENERAL HEALTH INTERVENTIONS



Two-thirds of service users accepted an AOD and/or general health intervention



1,006 AOD / general health interventions were provided across all service users



The most common AOD interventions provided were brief intervention, general drug education, and harm reduction education



The service facilitated access to naloxone for 61 service users to take away

A total of 1,006 AOD and/or general health interventions were provided across all service users (242 visits). Of these, 891 were AOD interventions (across 236 visits) and 115 were general health interventions (across 45 visits).

The most common AOD interventions were harm reduction education (25%, n=223), brief interventions (24%, n=215) and general drug education (22%, n=193). The most common general health interventions delivered were harm reduction education (36%, n=40) and general drug education (22%, n=25).

Of the 463 service users who received any service (i.e., drug checking and non-drug checking), 66% (n=303) accepted AOD intervention/s and 13% (n=57) accepted general health intervention/s. Access to naloxone (a medicine that rapidly reverses an opioid overdose) was facilitated for 61 service users to take home.

Source: Service operational data

Service users in the follow-up interviews described the ways in which staff provided health information. While some felt that they were already knowledgeable about harm reduction and were mostly interested in the analytical outcomes, the majority of interviewees stated that the health education provided was new or a useful reminder about how to reduce harms of drug use.

... Valuable, practical information ... he reminded me of a few things about what to be aware of and like not to take on an empty stomach ... That kind of reminded me that all this stuff is actually fairly strong ... (Male, aged 40)

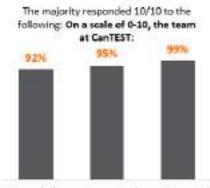
... So because obviously when you go in there they ask you what you think you have and then they test it to find out. And so after finding out the result, I had a chat with like a nurse or a counsellor and she was ... I guess explaining ... it's also dependent on like the setting and like, you know, who you're with and like the scene and that kind of thing can have like an impact upon, you know, your experience of drugs. (Female, aged 33)

Source: Evaluation qualitative interviews with primary service users

SERVICE RATINGS



94% of primary service users rated the service 10/10



Answered all my Communicated Treated me with questions about information respect the drug/s clearly



98% reported that they would recommend the service to others



84% reported that they would use the service again

Nearly all (98%, n=238) primary service users who completed the post-test survey said they would recommend the service to others, and 94% (n=227) rated the service overall as 10/10.

In addition, the following percentage rated the service 10/10:

- For confidence in the drug checking equipment accurately identifying the substances in their sample: 67% (n=163) (with 85% (n=206) rating 9/10 or higher)
- That the information received from the service was 'excellent': 87% (n=212)
- That the CanTEST team answered all their questions about the drug(s): 92% (n=223)
- That the CanTEST team communicated information clearly: 95% (n=230)
- That the CanTEST team treated them with respect: 99% (n=241)

The majority (84%, n=204) reported they would use the service again at the post-test survey, and nearly all (94%, n=77) reported that they would use the service again when asked at the follow-up survey.

Source: Service post-test survey of primary service users; evaluation follow-up survey of primary service users

SERVICE USER FEEDBACK

Qualitative feedback from the follow-up surveys and interviews elaborates on why service users rate CanTEST so highly. The most common terms used in the open-ended post-test and follow-up survey responses were friendly staff, useful information, non-judgmental and knowing what is in my drugs (**Figure 6**).

Figure 6. Responses to "What did you find most helpful or like most about the service?"



Note: the size of a word indicates its higher frequency among service user comments Source: Service post-test survey of primary service users; evaluation follow-up survey of primary service users The above sentiments are echoed in the qualitative interviews where service users stated that they appreciated the accessibility and confidentiality of the service and described the staff as helpful and knowledgeable. Service users reported that the staff create a friendly, warm, and inviting environment in which useful information about the identified drug, and harm reduction strategies are provided.

...And she was just like, super positive about it [me being there]. I didn't feel bad at all for doing that, but they also weren't like endorsing it. It was a very like this, like neutral educational approach to it, which I really appreciated. (Female, aged 20)

...even though one person was assigned to sort of talk to me and take me through the process, the others were all sort of like, "Hi, good to see you", and you know, accepting me. And a couple of people popped in with different experiences or minimization approaches ... And that felt like a group conversation that was very safe. (Female, aged 56)

In terms of 'knowing what is in my drugs', interviewees appreciated being able to access reliable, scientific information about drugs. In particular, they valued the experience of spending time with chemists and being able to witness the analytical process.

The best thing, in my opinion, is that you get to go in and talk to the chemists and see the tests real time. I mean, in the service I used overseas that [chemical analyses] was segmented from the service user and there was also like a peer intermediary, which maybe is useful for some but I'm more interested in the chemistry. So I really value having an opportunity to engage with the people doing the tests. (Undisclosed gender, aged 30)

Source: Evaluation qualitative interviews with primary service users

Service users' responses for how the service could be improved suggest that CanTEST should be open on more days and for longer hours (**Figure 7**). Some felt that the process could be faster with more testing equipment and a shorter survey (NOTE: a longer form pre- and post-survey was utilised for the pilot period to evaluate the service). While many were happy with the layout of the service, some found the layout to be confusing and to lack privacy. Advocating for the usefulness of the service, some participants commented that more public awareness was needed to attract patrons. Finally, the limitations of the testing equipment were disappointing for those wanting to test certain plant materials and liquids and they called for access to more sensitive analytical testing.

Source: Service post-test survey of primary service users; evaluation follow-up survey of primary service users; evaluation qualitative interviews with primary service users





Note: the size of a word indicates its higher frequency among service user comments Source: Service post-test survey of primary service users; evaluation follow-up survey of primary service users

5.4 How was the service received by other key stakeholders?

Qualitative interviews with stakeholders showed general support for CanTEST and the role of the drug checking service in reducing the harms of drugs in the ACT. They expressed support for the pilot implementation and supported the continuation of drug checking in the ACT.

Stakeholders external to the CanTEST service reported that they had been consulted about the development of the service and were largely happy with these communications. Ongoing communication about service changes (opening hours, special events and so on) was requested to prepare staff and assess any potential risks.

... we wouldn't even know that a service is there apart from the fact that the signs are up ... Ohh and when there's a really big event on there's a queue, but apart from that you wouldn't know. (Co-located service)

... I really appreciated through this whole process being included so that we were involved, even though it didn't have a lot of direct impact on us ... so that's the most important thing for me, I think is just that we've got this information that we know that it's current and that we're getting it from a reliable source. (ACT Ambulance)

In terms of impact, CanTEST staff commented that the service provided quality and useful information to the public. A few of the stakeholders were involved in the Groovin' the Moo festival-based drug checking pilots and commented on differences between event and fixed-site services. In particular, stakeholders commented on the capacity for fixed-site services to attract a broader range of service users who use different substance types.

... Most people coming through at the festival were, you know, the main substance was MDMA ... there was a lot more young people ... CanTEST, there's a lot more people like on their lunch break in their power suit coming in as well. So I think yeah, more diversity in general. (CanTEST staff)

We saw people who had tie dye shirts and then people who had ties and business jackets. But I don't think we could have had a much more representative sample of the Canberra community if we tried. (CanTEST staff)

... [CanTEST's] totally different to the festivals from a sampling perspective. Whereas the festivals ... it must have been greater than 90% MDMA ... [at CanTEST] we saw a lot of cocaine, a lot of expected ketamine ... a series of benzodiazepines and lots of people interested in cannabis testing that we couldn't offer ... methamphetamine, amphetamine, a little bit of heroin ... I think we must have hit most of them, if not all of them, over the six months ... so the range of samples is bigger [than the festivals], but the technology we had to meet that challenge was greater as well. (CanTEST staff)

Source: Evaluation qualitative interviews with other key stakeholders

Compared to festival settings, many stakeholders reflected that the fixed-site service provided a broader mix of staff expertise and greater time and opportunity for intervention.

... I think the amount of services you can provide [at a fixed site] can be more in depth as a fixed site [than at a festival]. Like we had nurses there who could take blood samples. They can give health advice, there's contact information ... And it doesn't necessarily have to be about drug use in that situation. It could be about anything as we were at a health service as well ... (CanTEST staff)

... I think obviously the fact that it [staffing] has been quite diverse means that there's, you know, all sorts of different knowledge and experience and stuff throughout the team, which works really well in terms of being able to refer things to other people with expertise in those areas. Just leaning on each other for different things. And I think that's quite a good sort of skill mix in that in that way, having co-workers and, you know, the counsellors and, and the analysts and everything, you know, I've, I've found that really, really positive. (CanTEST staff)

... the other health interventions that branch off the testing stream, like the nurse or the counsellor ... is incredibly opportunistic. Someone might say, "Oh yeah, like, oh, I had some trouble injecting the steroids last month" and that's like, "go and talk to the nurse, they will give you some information". (CanTEST staff)

The CanTEST service can undertake up to three types of testing within a visit: FTIR, UPLC-PDA and FTS (see **Panel 1**). The requirements of an event-based drug checking service means that only portable analytical technology for contents (i.e., FTIR), not purity (i.e., UPLC-PDA), is suitable.

So whereas the infrared [FTIR] we had of the festivals was useful and probably the best piece of equipment for that setting, it's very limited in its functionality ... we can't sort of pick out mixtures of some of those drugs like cocaine ... (CanTEST staff)

... I think the longer we run as a service, the more people came in specifically for purity [UPLC-PDA], because that's a service that they can't do with a reagent test at home, they can't get from any other testing site. And I think that became the really strong suit of the service ... more than just being like, "Cool, I have MDMA, I'm going to leave" ... I think it really allowed the workers to initiate a more comprehensive conversation than if we didn't offer that extra information. (CanTEST staff)

Source: Evaluation qualitative interviews with other key stakeholders

CanTEST staff reflected that these unique functions of a fixed-site service not only attracted service users but built a sense of community. This sentiment around community is reflected in the service data which shows that at least 60 people visited the service more than once (see section 5.3).

So I think it became more of a community initiative where we were providing a service for them, but they were also providing a service for us because they knew the importance of the data. Which meant that we were more likely to see them back again. So I think it worked in a continuous cycle where everyone was supporting each other ... And I think that's how it needs to be in the community. It needs to be community integrated where we work with each other ... We got some clients that we just we didn't know their name, we didn't know where they lived or anything. But we knew so much about their lives just because they came in so much. And it was just a community that formed that. They taught us a lot about drugs and we taught them a lot ... (CanTEST staff)

Still, it was noted that there are many people from Canberra who use drugs and who have not yet accessed the service. In particular, the relatively low number of people who inject drugs utilising CanTEST was noted.

... if we were able to engage people accessing the NSP [needle and syringe program in the building] more ... think a lot of that is still the trust that we still need to build in the community, especially with that cohort of people. (CanTEST staff)

Stakeholders were asked about any concerns during the six-month pilot or for future drug checking initiatives. While none reported any major concerns, there were several comments and suggestions made related to the service location and the service model. Many commented on difficulties for service users accessing CanTEST because it is in an area of the Canberra City centre with little parking. The layout of the premises was also considered inadequate, especially when the service was busy. The premises includes stairs and several small rooms which means that service users have to move through various rooms and privacy can be difficult to maintain. The small, windowless testing room was particularly difficult for the chemists and maintenance of analytical equipment.

... the space, you know, when it gets really busy, just it is quite a small confined sort of area. So the actual physical number of people that we can get through is quite challenging. (CanTEST staff)

That chemistry testing room is not large and it's not fit for purpose as a chemistry laboratory ... the flooring ... The air conditioning needs to be reconfigured to allow the balance to work. We need more space ... (CanTEST staff)

Source: Evaluation qualitative interviews with other key stakeholders

Staff at each shift include one AOD counsellor, one primary health nurse, one peer educator, two analytical chemists and a medical practitioner on-call. CanTEST staff were divided on whether this composite of staff should continue beyond the pilot stage. Some gave examples of the benefits of having an interdisciplinary team within a drug checking service. In particular, the ability to refer a service user to a nurse immediately for health care was noted. However, some also felt clinical staff (nurse and medical practitioner) were not essential to core service delivery and could be removed after the pilot phase.

Furthermore, the separation of peer and AOD workers in the service model is not operating in practice. These staff are all providing client journey and harm reduction interventions. As described in the Interim Report (Olsen et al., 2022a), the diversity of the staff and the newness of the service meant that it took time to negotiate workflows and build collaboration and trust. Inter-professional relationships highlight different skills sets and staff report that further attention is needed to build confidence in general harm reduction interventions across the different professions.

... I think having more organizations involved this time around [compared with the festival pilots] I guess where the skill sets took a little while to calibrate ... So working out the distinction and skill set between counsellors and peer educators ... was a bit more complex. (CanTEST staff)

And we've got all three of those groups acting as frontline workers, and that can be a little bit disjointed to clients because you get a vastly different experience ... (CanTEST staff)

I feel the staff working there need to be really skilled in reading the room. And targeting individual approaches to the person sitting in front of them. (CanTEST staff)

Currently, there is no budget for ongoing staff training. Regular information sharing and up-skilling was suggested as a way to increase confidence and consistency in harm reduction intervention delivery.

... I would probably have ... six-times-a-year cross-training with the team so that everyone gets a sense of what we've been seeing, what are the common adulterants ... and how to have those conversations. (CanTEST staff)

... the number of research chemicals that we're getting is like they're terrifying because it's just uncharted waters ... it's just not well researched ... And we have to sort of shore that up and make sure that everyone's trained properly ... (CanTEST staff)

Source: Evaluation qualitative interviews with other key stakeholders

The other areas staff suggested for improvement includes the technical side of the service. The program evaluation required additional data collection from staff and service users and this data management system should be simplified and streamlined post-evaluation. Second, staff reported three main types of substances where there was a demand for testing, but where current technology cannot always identify. This included cannabis, steroids and research chemicals. While undetectable substances can be sent to the ANU Research School of Chemistry and ACTGAL for further testing, there was no option to provide that data back to service users. One solution (albeit an expensive one) is to purchase a mass spectrometer detector for the service.

Source: Evaluation qualitative interviews with other key stakeholders

Most people don't bring in commercial pharmaceutical grade steroids. Yeah, but we tried really hard to bridge that gap. The issue we have with steroids is, of course, a lot of them are in oils and that oil masks the identification a lot. And so a lot of people coming in hoping we could identify and quantify their samples were probably a bit let down that we couldn't necessarily do that. (CanTEST staff)

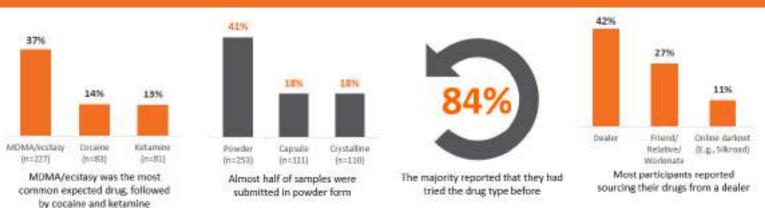
... So the self-professed psychonauts would often bring us five completely different substances and we just had to be straight up and say, you know, if we can identify it, we'll try. If not, you know, we're not sure. And actually, our library was best place for that. And often it would detect them. And other times they were too new even for those libraries. (CanTEST staff)

5.5 TO WHAT EXTENT DID THE SERVICE PRODUCE VALUABLE AND TIMELY INFORMATION ABOUT ILLICIT DRUG AVAILABILITY AND HARMS IN CANBERRA, AND HOW WAS THAT INFORMATION USED?

In its first six months the service produced valuable information about illicit drug availability. The service and ACT Health used this information as planned, which included personalised health interventions within the service, public releases of service data, community notices and drug alerts.

Only half the test results (53%, n=323) detected the expected drug, with an additional 2% (n=12) detecting another substance (with high confidence) as well as the expected drug. Thus, the service is providing critical information about drug contents to service users and the wider community.

Prior to CanTEST, the only public health information about the ACT illicit drug market came from a range of un-linked sources including; post-mortem and clinical toxicology in the health system, analytical testing of lawenforcement seizures, self-reported drug purchasing information in national epidemiological (e.g., National Drug Strategy Household Survey), local sentinel surveys (e.g., EDRS and IDRS) and wastewater analyses. These data sources are limited in their scope and, as such, cannot accurately reflect the diversity of the drug market (Peacock et al., 2020, Dasgupta and Figgatt, 2021).



SAMPLE ASSESSMENT & EXPECTED DRUGS

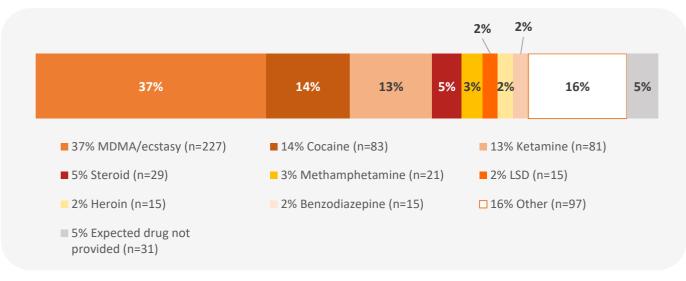
Of the 614 samples submitted for drug checking, primary service users reported that over one-third were expected to be MDMA/ecstasy (37%, n=227), followed by cocaine (14%, n=83) and ketamine (13%, n=82). Steroids were expected in 5% of samples (n=29), a notable increase from the first three months of service operation (n=3). Methamphetamine was expected in 3% (n=21), and LSD, heroin and benzodiazepines were each expected in 2% of samples (n=15) (**Figure 8**).

Powder was the most common form of samples submitted for checking (41%, n=253), followed by capsule (18%, n=111) and crystalline (18%, n=110).

For each drug brought in for testing, the majority of primary service users reported that they had tried the type of expected drug before (84%, n=249). The most commonly reported reasons for expectation of drug type were informed by: what the person supplying the drug sold it as (63%, n=313); having already tried the drug (26%, n=132), or someone else already trying the drug (16%, n=79).

The largest proportion of drugs were reported as sourced from a 'dealer' (42%, n=200), followed by friend/relative/workmate (27%, n=129).

Figure 8. Expected drug by drug type

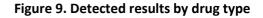


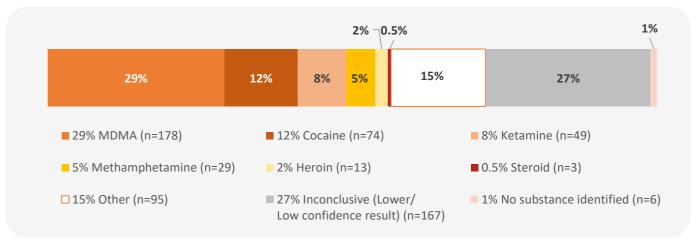
Source: Service operational data; service pre-test survey of primary service users. Note that samples where the expected drug was not reported are excluded.

DETECTED DRUGS

Of 614 samples tested, 72% (n=441) had at least one substance detected with high confidence. Over onequarter of samples submitted were found to contain MDMA (29%, n=175), followed by cocaine (12%, n=71) ketamine (8%, n=48), methamphetamine (5%, n=29) and heroin (2%, n=13) (**Figure 9**).

There were no positive detections of fentanyl in any of the 157 samples tested with fentanyl test strips.



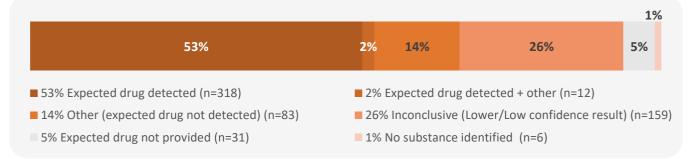


Source: Service operational data. Note that this figure includes additional samples where expected drug was not reported.

DETECTED AND EXPECTED DRUG

Just over half of test results (53%, n=323) detected the expected drug, with an additional 2% (n=12) detecting another substance (with high confidence) as well as the expected drug (**Figure 10**). For 14% of samples, a different drug to that expected was detected with high confidence.

Figure 10. Detected results by match type



Note: In 66% (n=295) of 'high confidence' test results, FTIR testing returned lower or low confidence matches for additional substance/s. Due to the limitations of FTIR analysis these substances cannot be identified with certainty and are not listed by name in this report.

Source: Service operational data; Service pre-test survey of primary service users

DETECTED AND EXPECTED DRUGS BY TYPE

Discrepancies between the drug that people expected and that which was identified varied substantially between drug types (**Figure 11**). For methamphetamine and heroin, around 90% of samples identified the expected drug with high confidence (90%, n=19 and 87%, n=13 respectively).

For MDMA, cocaine and ketamine, the expected drug was identified with high confidence for between 7%-74% of samples, often with additional substances also being identified (ranging from 1-12% of samples).

Steroids and benzodiazepines had the largest proportion of inconclusive results (76% and 92% respectively), reinforcing the known challenges of testing for these drug types.

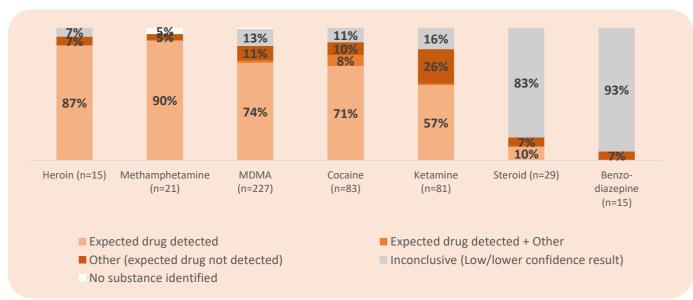


Figure 11. Detected results by expected drug type and match type

Note: In 66% (n=295) of 'high confidence' test results, FTIR testing returned lower or low confidence matches for additional substance/s. Due to the limitations of FTIR analysis these substances cannot be identified with certainty and are not listed by name in this report.

Source: Service operational data; Service pre-test survey survey of primary service users

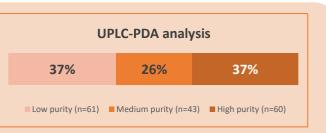
Figure 12. MDMA results

MDMA

Was expected in 227 samples and detected in 178

4 samples detected MDMA and other substances (sucrose, N,N-dimethylpentylone)

24 samples detected other substances (ketamine, cocaine, methamphetamine, MDA and others) (MDMA not detected)



31 samples had low/lower confidence (i.e. "inconclusive") results

Of the **164** MDMA samples tested with UPLC-PDA, a similar number returned low purity (37%, n=61) or high purity (37%, n=60) results

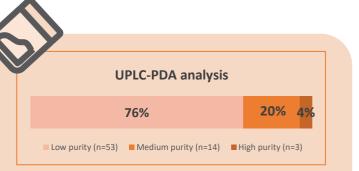
Figure 13. Cocaine results

Cocaine

Was expected in 83 samples and detected in 74

7 samples detected cocaine and other substances (L-glutamine, creatine, caffeine, Ltyrosine)

8 samples detected other substances (methamphetamine, benzocaine, boric and orthoboric acid, urea, L-glutamine, dimethyl sulfone (cocaine not detected)



9 samples had low/lower confidence (i.e. "inconclusive") results

Of the **70** cocaine samples tested with UPLC-PDA, the majority (**76%**) were of **low purity**

Figure 14. Ketamine results

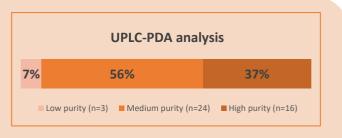
Ketamine

Was expected in 81 samples and detected in 48

1 sample detected ketamine and another substance (benzocaine)

21 samples detected other substances (procaine, cocaine, MDMA, procaine, 2-fluoro-2-oxo-PCE (2F-NENDCK) & others) (ketamine not detected)





13 samples had low/lower confidence (i.e. "inconclusive") results

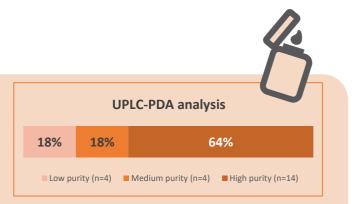
Of the **43** ketamine samples tested with UPLC-PDA, over half (**56%**) were of **medium purity** Figure 15. Methamphetamine results

Methamphetamine

Was expected in **21** samples and detected in **29**

1 sample detected sucrose (methamphetamine not detected)

1 sample did not detect any substances



Of the **22** methamphetamine samples tested with UPLC-PDA, **64%** were of **high purity**

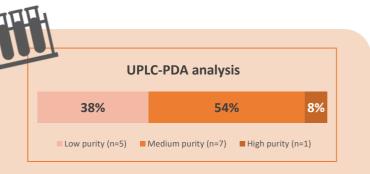
Figure 16. Heroin results



Was expected in **15** samples and detected in **13**

1 sample detected morphine (heroin not detected)

1 sample had a low/lower confidence (i.e. "inconclusive") result



Of the **13** heroin samples tested with UPLC-PDA, **54%** were of **medium purity**

Figure 17. Benzodiazepines results

Benzodiazepines

Was expected in 13 samples and detected in 0

1 sample detected procaine

All other samples had low/lower confidence (i.e., 'inconclusive') results

1 sample was tested with UPLC-PDA but did not detect any of the target drugs, so purity data are not available.



It should be noted that benzodiazepines are challenging to detect by FTIR and are not targeted by UPLC-PDA, which may explain the low detection rate reported here.

Use of **mass spectrometry** as an additional analytical technique at the service may go some way in addressing these limitations.

Source: Service operational data; Service pre-test survey of primary service users

COMMUNITY NOTICES AND OTHER INFORMATION SHARING

During the pilot period CanTEST released six public reports. This included five monthly reports summarising drug checking results (see **Appendices: CanTEST Monthly Reports**) and two community notices regarding harmful substances found in samples (**Panel 4 and 5**). Information on a potentially risky substance was provided to ACT Health for consideration and, on 31st December 2022, a public health alert was issued by ACT Health regarding "metonitazene" – a strong opioid being sold as "oxycodone" (**Panel 6**). The reach of the monthly reports and community notices appears to be beyond the ACT as the service has received multiple requests for information and mail-in drug checking. These public data are among the most timely and comprehensive publicly available drug market data in Australia. As discussed above, current illicit drug monitoring systems are limited in their scope and CanTEST data represents new information about the unregulated drug market. Insights include the variety of substances used by people in the ACT as well as identification of novel substances emerging in the market at a rate that is challenging to monitor via other surveillance systems. It should be noted that despite the advances facilitated by CanTEST analytical services, CanTEST data, like other data, is limited by access to samples. CanTEST data should not be interpreted as representative. CanTEST is a new addition to drug market surveillance and presents an opportunity to coordinate data, enabling a more comprehensive picture of the ACT drug market than previously available.

Panel 4. Community notice for 2'-fluoro-2-oxo-pce issued by CanTEST



Source: https://www.cahma.org.au/wp-content/uploads/2022/10/1.jpg

Panel 5. Community notice for dimethylpetylone issued by CanTEST



Source:

https://www.cahma.org.au/wp-content/uploads/2022/10/CanTEST Community-Notice Dimethylpentylone-P1-1.png

Panel 6. Drug Alert for Metonitazene issued by ACT Health

Public Health Alert: Dangerous Drug warning for Canberrans

ACT Health is warning Canberrans to be aware of a strong opioid detected in tablets being sold as "oxycodone".

31 Dec 2022

ACT Health is warning Canberrans to be aware of a strong opioid detected in tablets being sold as "oxycodone".

Metonitazene, a potent synthetic opioid, has been detected in a tablet tested at the CanTEST Health and Drug Checking Service. The synthetic opioid has been detected in tablets that were sold as "oxycodone". The tablets were circular and yellow in colour, with no markings or stamps. This drug warning does not apply to any oxycodone tablets provided on prescription through a pharmacy or a healthcare service.

Metonitazene is a potent synthetic opioid of the nitazene class. Nitazenes can be as strong, or stronger than fentanyl. NSW Health have recently issued a public drug warning for 'Heroin' found to contain nitazenes.

Source:

https://health.act.gov.au/public-health-alert/public-health-alert-dangerous-drug-warningcanberrans#:~:text=Metonitazene%2C%20a%20potent%20synthetic%20opioid,with%20no%20markings%20or%20stamps

5.6 TO WHAT EXTENT DID THE SERVICE RESULT IN SERVICE USERS' ATTITUDINAL AND/OR BEHAVIOURAL CHANGE RELATED TO ILLICIT DRUG USE?

A number of indicators are available that demonstrate the ways in which CanTEST interventions have impacted on service user behaviours. Overall, these measures show positive impacts of the service on individuals. As has been found in previous research, service users' reported likelihood of using the drug/s after receiving the test results varied considerably according to whether the results aligned with the drug they thought it would be (Olsen et al., 2022b, Valente et al., 2019, Measham and Turnbull, 2021, Benschop et al., 2002). When the service user's expectation does not match the identified drug, this commonly leads to reduced intention to take that substance. Conversely, concordance between expectation and identification is associated with stable or increased intention to take a substance.

DRUG DISCARD WITHIN SERVICE VISIT

Drug discarding is a common measure of service user behavioural change in the literature. Approximately onein-ten samples tested resulted in a drug being discarded at the service (10%, n=64). Drug discarding varied substantially according to whether results identified the expected drug or not. For those where only the expected drug was detected, drugs from 5% of samples were discarded (n=15). For those where an additional drug, a different drug or an inconclusive result was found, 16% of samples were discarded (n=44).

Source: Service operational data; service post-test survey of primary service users

INTENDED USE OF TESTED DRUG

For each sample submitted for testing, survey respondents were asked while in the service to rate their likelihood of using the drug now that it had been tested. Where results matched the expected drug (n=224), 31% (n=68) reported that they were unsure whether they will take the drug and 8% (n= 18) said they would 'definitely not' use the drug. For those where an additional drug, a different drug or an inconclusive result was found (n=146), one-third (n=32%, n=47) reported that they 'definitely will not' use the drug (**Figure 18**).

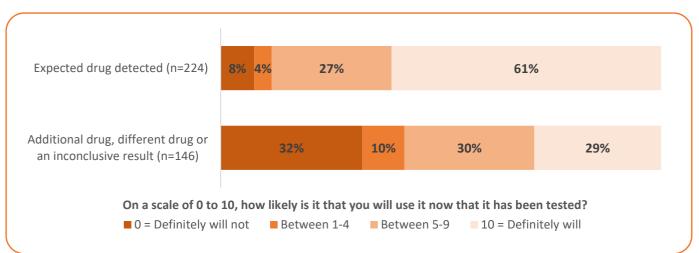


Figure 18. Likelihood of use by expected drug and detected results

Note: 'Expected drug detected' category includes results with additional 'low/lower confidence' FTIR results. 'Additional drug, a different drug or an inconclusive result' category has been collapsed due to small numbers in some categories and includes cases where no substance was detected. Note analyses are restricted to instances where follow-up survey was completed.

Source: Service operational data; service post-test survey of primary service users

BEHAVIOUR AFTER THE SERVICE VISIT

There is a growing body of evidence on the impact of drug checking information for service users including acceptability of the service, drug disposal rates, and reported drug use intentions (Maghsoudi et al., 2022). However, conclusions regarding outcomes are hampered by an absence of studies on actual behavior after the intervention. Most commonly, service evaluations rely on service users' reports of intended drug use behavior while they are still in the service (as per the data presented above).

In a novel contribution to the field, this evaluation has assessed behavior change through follow-up of individual services users, linked to their responses to the surveys completed while in the service. While still self-reported data, the follow-up surveys ask service users what they did with the drug/s they had tested and to reflect on whether their drug taking changed since visiting the service.

Compared with the intention to use to use data above, similar patterns of reported use and disposal occurred amongst those who completed the follow-up survey (noting analyses are restricted to those who completed all three surveys). Where the expected substance was detected, the drug was more likely to be used (59%). The percentage reporting use was lower (29%) when an additional drug, a different drug or an inconclusive result was found in the substance. Similarly, 6% of drugs were disposed of after testing where the expected drug was detected, compared to one-third (31%) if an additional drug, a different drug or an inconclusive result was found (**Figure 19**).

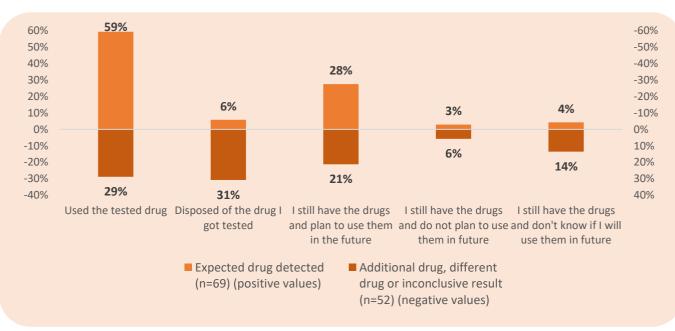


Figure 19. Use of the drug after testing by whether expected and detected drug matched

Note: 'Expected drug detected' category includes results with additional 'low/lower confidence' FTIR results. 'Additional drug, a different drug or an inconclusive result' category has been collapsed due to small numbers in some categories and includes cases where no substance was detected. Note analyses are restricted to instances where follow-up survey was completed.

Source: Follow-up survey of primary service users

Of the drugs that were used by follow-up patrons, the majority used the same amount of the drug that they had planned. Where the expected drug was detected, two-thirds (63%) used the same amount; 15% used less than they had planned, and one-fifth (22%) used more than they had planned (**Figure 20**).

Where an additional drug, a different drug or an inconclusive result was found, the majority (93%) used the same amount and 7% used less than they had planned. Within this group, none reported using more than they had planned.

-100% 63% 60% -50% 22% 15% 10% 0% 7% -40% 50% -90% 100% 93% -140% Used the SAME amount of Used MORE of this drug Used LESS of this drug the drug that I had planned than I had planned than I had planned Expected drug detected Additional drug, different (n=41) drug or inconclusive result (n=15)

Figure 20. Amount used by those who used the drug after testing by whether the expected and detected drug matched

Note: 'Expected drug detected' category includes results with additional 'low/lower confidence' FTIR results. 'Additional drug, a different drug or an inconclusive result' category has been collapsed due to small numbers in some categories and includes cases where no substance was detected.

Source: Service operational data; Follow-up survey of primary service users

Trying to obtain more of the drug that was tested was uncommon for follow-up respondents, and again distinguished by whether the drug checking results identified the expected drug or not. For those whose drug checking results identified the expected drug, over two-thirds (68%) reported that they did not try to obtain more of the tested drug (**Figure 21**). For those where an additional drug, a different drug or an inconclusive result was found, the vast majority (84%) reported that they did not try to obtain more of the tested drug (**Figure 21**).

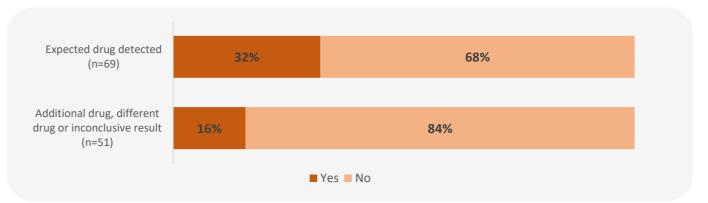


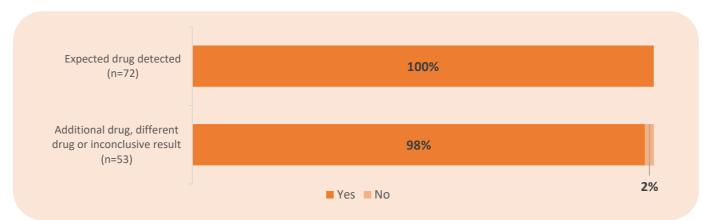
Figure 21. Did you obtain (or try to obtain) more of the drug that was tested?

Note: 'Expected drug detected' category includes results with additional 'low/lower confidence' FTIR results. 'Additional drug, a different drug or an inconclusive result' category has been collapsed due to small numbers in some categories and includes cases where no substance was detected.

Source: Service operational data; Follow-up survey of primary service users

Sharing of information was also reported after accessing the service. Whether the drug checking results were as expected or not, the vast majority of respondents reported telling others about the results (**Figure 22**).

Figure 22. Did you tell anyone else about the results of testing for this drug?



Note: 'Expected drug detected' category includes results with additional 'low/lower confidence' FTIR results. 'Additional drug, a different drug or an inconclusive result' category has been collapsed due to small numbers in some categories and includes cases where no substance was detected.

Source: Service operational data; Follow-up survey of primary service users

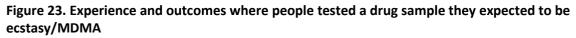
REPORTED BEHAVIOURS FOR THOSE WHO EXPECTED MDMA

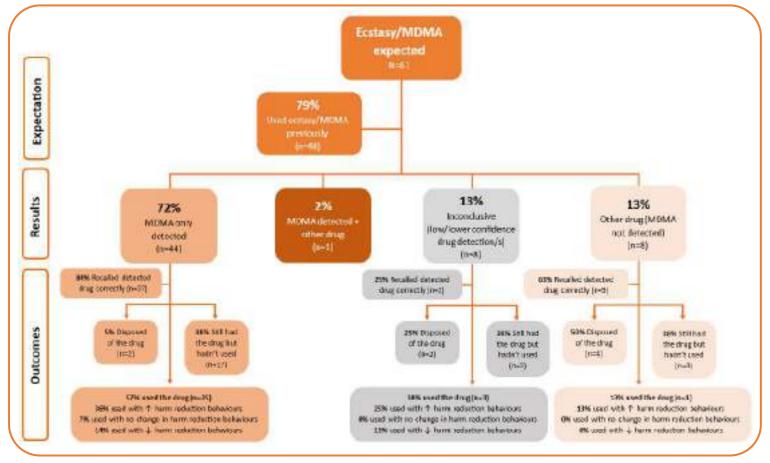
As a harm reduction service, one intention is to reduce harms from drugs should people go on to use them after receiving information and/or other resources. In terms of reporting further on harm reduction behaviours engaged in after drug checking, we have focused on outcomes where samples were expected to be ecstasy/MDMA, and where people completed all three surveys (i.e., pre, post, and follow-up surveys) (**Figure 23**). These analyses could not be replicated for other drug types due to small numbers (n<20); such work will be feasible with further data collection.

These analyses show that, of the 61 instances where people expected ecstasy/MDMA, four-in-five (79%) had used ecstasy/MDMA before. Of those instances where ecstasy/MDMA was expected, three-in-four (79%) showed MDMA only in chemical analysis ('expected drug only detected'). A further 13% had inconclusive results or a drug different to that expected detected ('other drug'), respectively, and 2% had MDMA plus another drug detected.

Of those in the expected drug only detected group (n=44), most (84%) correctly recalled that MDMA had been identified when asked to self-recall their test results in the post-test survey. Further, the follow-up survey showed that, in the intervening time, 5% had disposed of the tested drug, 38% still possessed but had not used the tested drug, and 57% had used the tested drug (in the majority of instances reporting increased engagement in harm reduction behaviours relative to intended behaviours reported in-service).

Accurate recall of drug checking results was reported in one-in-four instances (25%) where there were inconclusive results (25%) and in nearly two-in-three instances (63%) where a drug other than MDMA was detected (and no MDMA). One-quarter (25%) of those with inconclusive results disposed of the tested drug, 37% still possessed but had not used the tested drug, and 38% used the drug, with the majority of this group engaging in greater harm reduction behaviour relative to previously reported intended behaviour. By contrast, half of those instances where a drug other than MDMA was detected results in drug disposal, 37% still possessed but had not used the tested drug, and 13% had used the drug but all with increased harm reduction behaviour prior to drug checking.





Note. Data are reported for samples people bought in expecting to be ecstasy/MDMA, and where the person completed all three surveys (pre, post, and follow-up surveys). 'Expectation' data were captured in the pre-test survey; 'Results' data were captured in the pre-test survey and chemical analysis during the visit; 'Outcomes' data were collected at post-survey (recall of drug result) and follow-up survey (disposing, retention, and use of the drug). Change in harm reduction behaviour was measured based on assessment of intended and actual harm reduction behaviours within survey and follow up surveys ('space out my use of this drug', 'have a test dose of this drug', 'use with alcohol at the same time as this drug' (reverse coded), 'used with other drugs at the same times as this drug' (reverse coded), 'make sure I have naloxone around', 'make sure someone else is with me when I used this drug and/or knows I'm using'). An increase in harm reduction behaviour was coded where people reported engaging in more harm reduction behaviours at follow up than reported as intended during within-service surveys; a decrease where people reported engaging in fewer; and no change where the same behaviours were reported.

Note: 'Expected drug detected' category includes results with additional 'low/lower confidence' FTIR results. 'Additional drug, a different drug or an inconclusive result' category has been collapsed due to small numbers in some categories and includes cases where no substance was detected.

Source: Service operational data; Service pre-test survey of primary service users; Service post-test survey of primary service users; Follow-up survey of primary service users

Follow-up interviews with service users further demonstrates the ways harm reduction information is utilised after accessing the service. Particularly, how harm reduction information is interpreted alongside the testing results. When the substance was confirmed as the expected drug, service users reported feeling 'pleased' and more at ease. They went on to use the drug and talked about the ways in which their behaviours and attitudes changed.

... I think because we had a um, result that we had hoped for getting a pure pill with no adulterants. I think it meant we used the pill in the same way. But I went in knowing that if it was like a pill that had, like, say, in with another substance like meth or similar, I probably wouldn't have chosen to use that pill. So you go into the experience fully willing to have my mind changed, and only because it was what I expected it to be and hoped. (Male, aged 27)

I've got information about sort of um, in terms of like using and the like tips for using MDMA ... like taking smaller doses ... That like mixing alcohol and that was like a big takeaway, like really isn't a good idea. And I think that's a pretty common thing that people do. So then when the festival was on ... I didn't drink anything ... Yeah, but definitely changed my habits. (Female, aged 20)

It didn't change my plans, but it made me feel more comfortable and reassured and it changed my awareness of like how much water I'm drinking. (Female, aged 23)

... they could only find MDMA, which was what I wanted to hear ... Yeah, I think they told me to take half at a time just for harm minimization, which I've now started doing, which I never really heard before. That kind of explained to me why it is a good idea to do just for I suppose you minimize the risk of taking that one cap straight up and that was the main thing that I took from that conversation. (Male, aged 24)

For those whose drug was not what they expected it to be, they reflected on the ways the testing results and information they received impacted on their behaviours and attitudes after accessing the service.

... the one [sample] that was meant to be ketamine ... So I think just more them informing me the lack of information that is out there and the lack of resources there are around that drug. Yeah, that made me not want to take it just because it's very unknown. (Male, aged 28)

So I guess it would make it more inclined if I was to do something that I felt like was a risky choice, like I would go back to them to get it tested, to make sure that I'm like that I know what I'm getting into in terms of dosing, in terms of what else could be in that. (Non-binary, aged 20)

Source: Evaluation qualitative interviews with service users

5.7 IS THE OPERATIONAL DATA SUFFICIENT AND OF QUALITY TO BUILD AN ON-GOING MINIMUM DATA SET THAT WOULD INFORM BOTH ROUTINE MONITORING AND RESEARCH ACTIVITY?

Operational data include chemical analysis results and service pre- and post-drug checking survey completed by primary service users during their visit (see Section 3.3.1-3.3.3 for further detail). To date, these data have been collected in order to satisfy a range of needs and requirements including: meeting legal obligations (e.g., ensuring service users signed waiver); undertaking chemical analysis quality assurance (e.g., ACTGAL testing); quantifying service provision for reporting (e.g., number of clients, number of interventions); understanding client experiences and outcomes as well as local drug markets; and evaluating the service. Findings suggest that data are comprehensive and of high quality, but that there is scope to refine and streamline data collection in a way that still enables important insights on service performance and drug markets. As the service evaluation is complete, there is a need to assess which data is needed for reporting to funders (ACT Health), monitoring and research.

DATA COMPREHENSIVENESS AND QUALITY

Data collection was well-received by staff and by service users as it is a trial service that required evaluation. Most service users accessing CanTEST completed the voluntary service pre-test and post-test surveys, with 82 also completing the evaluation follow-up survey around two weeks after using the service (see Section 5.1 for further information).

Currently, the data collected are comprehensive and allow for detailed monitoring and research activities; in particular, the present evaluation. Over 95% of variables collected throughout service data and pre, post and follow-up surveys have been reported on in this course of this report, with a range of domains assessed. Data collected have enabled reporting to ACT Health, monthly public summaries of results, and issuing of community notices and drug alerts.

Various strategies were implemented to ensure data quality. CanTEST staff received training and support from Directions Health Services and from the evaluation team in the collection of data. Data collection tools included consent processes for surveys, and service users could skip answering any question for these surveys. Provision of an identifier to link surveys for one service user over time was optional. Data quality checks were built into data collection tools and undertaken on a weekly basis by a staff member, with staff working within the service consulted on any missing or inconsistent data. Templates were built to enable regular reporting on data to ACT Health and the public. Overall, there are various indicators of strong data quality (e.g., <5% missing data on any survey item).

However, the current quantity of data entry is cumbersome for staff and service users who consent to data collection (see Section 5.3 for further detail). Service user data can be streamlined with careful consideration of monitoring needs and potential research.

ESTABLISHING ONGOING DATA COLLECTION FOR MONITORING AND RESEARCH

Findings suggest ongoing data collection, analysis and reporting are feasible and, indeed, will be critical for CanTEST. This service is the first of its kind in Australia and still in early stages of operation. Information from data collection is important to guide incremental service improvements, including responding to contextual changes. Findings from the service will also be useful in informing potential establishment of other services in Australia, including impending fixed-site and mobile drug checking services in Queensland (Queensland Government, 2023).

Findings suggest scope to balance collecting sufficient data for the above purposes with the need to reduce burden of data collection moving forward. Future activities should include a review of data collection instruments to generate a minimum data set for collection to inform ongoing monitoring and research. Such work will be useful not only for CanTEST but also in ensuring future services are collecting similar data, as per other health and harm reduction services in this sector (e.g., Alcohol and other Drug Treatment Services National Minimum Data Set (AODTS NMDS), Needle Syringe Program National Minimum Data Collection (NSP NMDC).

During the process of refining the data collection system we recommend the following actions in order to build an on-going monitoring system suitable for routine monitoring and research:

- Refine data collection instruments in line with the service's reporting requirements;
- Ensure data extraction is streamlined for reporting requirements and public communications;
- Consider the research potential of collected data when refining data collection instruments;
- Ensure data collection instruments are made available publicly to encourage the establishment of a national minimum data-set in the future.

5.8 DID THE SERVICE HAVE ANY UNINTENDED CONSEQUENCES, EITHER POSITIVE OR NEGATIVE? IF SO, WHAT WERE THEY?

Both positive and negative unintended consequences were observed during the pilot. As reported in the Interim Report, most of unintended consequences were positive, and the negative ones have provided information that can assist in future service planning.

POSITIVE CONSEQUENCES

- CanTEST has developed a strong online presence with various websites and social media accounts
 providing the monthly snapshot reports and community alerts. The creation of CanTEST social media
 accounts and online communication of data was not planned in the original service proposal, but was
 driven and developed by service staff. Print outs of the online data posts, such as the monthly
 summaries, community notices, and drug alerts, have served as educational tools for engagement
 during the drug checking service journey.
- A small number of parents of young people who use drugs accessed the service with the aim of reducing the risks of harm that their children face in using drugs.
- A new ketamine-like substance was identified in the service in September 2022. The service understands that it is the first time globally that a new substance has been identified in a drug checking service. Its significance was highlighted by the fact that the service received enquiries about the substance nationally and across the globe. The service provided GC-MS analytical data to national forensic laboratories, providing timely information on the identity of a new psychoactive substance in the Australian drug market.
- The service found an unexpectedly high level of demand from people from diverse sectors wishing to
 do 'walk-throughs' of the service in which they are provided with an understanding of the service user
 journey and demonstrations of the drug checking equipment. Senior policy makers and politicians,
 health professionals, researchers, advocates and media as well as people from interstate
 contemplating establishing drug checking services have completed walk-throughs. In this sense, the
 service provided a valuable information and an educational role in innovative drug harm reduction
 policies and practice in Australia.
- The evaluation team received requests from interstate colleagues for the sharing of the service and evaluation data collection tools. The interstate colleagues plan to use this information to support their own work in developing the evaluation of drug checking services when they become available in their own jurisdictions. This exchange of information creates the potential for a minimum dataset in the collection of data from drug checking services as they emerge across Australia.
- There has been establishment of the Australasian Drug Checking Information Group as a flow-on from the evaluation team's presentation to, and network-building activity at, the 2022 Darwin Australasian Professional Society on Alcohol and other Drugs (APSAD) conference. The group involves a consortium of individuals interested in best practices in drug checking and associated research across Australia, New Zealand and elsewhere.

NEGATIVE CONSEQUENCES

- ACT Health provided the funds to meet the budget provided by the service provider. However, a number of increased costs were unanticipated at the time of initial funding. While a certain level of in-kind contribution was expected at the commencement of the pilot, there was more work carried out to design and implement the service than expected. The three organisations providing the service, the evaluation team, and ACTGAL needed to make substantial in-kind contributions of time and expertise, over and above that anticipated for in original budgets. For example, service management rapidly realised that the promotion of the service was important, but that this was not adequately funded in original planning and budgeting for the service. Further, the service originally budgeted for one analytic chemist, however two were needed to meet the level of service demand. The ACTGAL also report that the confirmatory testing and consultation provided during the pilot has been greater than expected. While in-kind contributions were essential for sound governance, service design, and implementation, a range of the additional funds expended by Directions Health Services are intended to be covered by ACT Health.
- Finally, the equipment used is not owned by Directions Health Services or ACT Health. The FTIR is leased from Pill Testing Australia and the UPLC was donated by Waters Australia for the duration of the pilot. Costs of either purchasing the equipment or leasing longer term will be considered prior to the end of the pilot in August 2023.

5.9 WHAT WERE THE FINANCIAL COSTS OF THE SERVICE?

A summary of the budget for service delivery, as at the end of the six month pilot period, is available in **Table 2**, adapted from information provided by Directions Health Services. Note that Table 2 does not include significant components funded separately by ACT Health, including the below costs (information provided by ACT Health, all costs are excluding GST):

- \$130,887.58 for site costs including site lease, fit out and security system;
- \$6,000.00 for additional staffing and opening hours prior to Spilt Milk music festival; and
- \$3,000.00 for ACT Health communications regarding the pilot.

Inflation in equipment costs, furniture and other set-up costs and staff training led to greater than anticipated expenditure. The cost of the second analyst was offset by decreased medical on-call costs during this period. There are also a number of in-kind costs incurred by the CanTEST coalition, which have not been reflected in monetary terms. While a certain level of in-kind contribution was expected at the commencement of the pilot, there was more work carried out to design and implement the service than expected. These in-kind costs primarily include meetings about service operations, co-design of data collection instruments, weekly data cleaning, service walk-throughs for interested parties, media and reporting and public notices which can amount to several hours each week. These in-kind costs were incurred by Directions Health Services (approximately 3 days per week), Canberra Alliance for Harm Minimisation and Advocacy (approximately 1.5 day per week).

Item	Description	Cost (\$AUD)
Equipment	Drug checking equipment, drug safe & disposal system, IT and office equipment, etc.	\$50,145.30
Analytic resources	FTIR spectrometer lease, software, UPLC-PDA consumables	\$25,010.00
Staffing & professional fees		\$88,950.22
Office expenses		\$3,399.19
Administration		\$12,602
Other expenses incl. insurance		\$56,836.46
Total		\$236,943.22

Table 2. Service expenditure – 6 months

The financial costs outlined in the first six months of the pilot do not reflect the cost of a sustainable service. This is predominantly due to the significant in-kind contributions for both staffing and specialised chemical analysis equipment for the pilot. Changes to the service model (including timing, staffing profile etc) also require additional resourcing.

5.10 Should the service continue and, if so, what changes in the program and its contexts are desirable?

CanTEST should continue to provide the service broadly along the current lines until the conclusion of the current pilot in August 2023. Assuming that it continues to be implemented well and continues to deliver the positive outcomes documented in this report, it should become an ongoing part of the ACT's health services. The service is being utilised by people who use drugs, is well received by service users, has wide professional and community support, and is producing new information about the Australian drug market.

Beyond the initial six-month pilot period covered by this evaluation, there are a number of key factors that could be considered:

- It is clear that at least two analytical chemists are needed within the current service composition. In addition, there should be further investigation into the number and type of staff required in the service. Current CanTEST staff report different opinions on whether the current staffing composition should continue. However, there was a strong view that the service model requires review to ensure that the service flow and delivery is optimal.
- People who inject drugs are at high risk of overdose and other impacts of an unstable and unpredictable drug supply. CanTEST is working, as intended, to reach Canberrans who inject drugs however only one-in-ten (9%, n=22) of primary service users reported injecting drugs in the past month. Continued advocacy and networking could assist in reaching this population of service users. Importantly, international evidence suggests that it can take time for drug checking services to make connections with such a stigmatised population (Bardwell et al., 2019).
- There is a need to plan well ahead to create surge capacity for when events are being held in Canberra, such as music/dance festivals or conferences, that are likely to attract a substantial number of people who use drugs to Canberra. Number of service users seen during the extended hours of service prior to the Spilt Milk festival reinforces the necessity of additional resource allocation during this time.
- Findings suggest that there is an opportunity to review the opening hours and days of operation, reflecting the feedback received from service users that the current ones are too restrictive. These data suggest that additional days and opening hours outside of business hours are desired.
- The UPLC-PDA drug checking equipment is on loan to the service. It is state-of-the-art, providing valuable additional information, including drug purity. If the service continues at its current level of operation, and this is recommended, equipment and consumables need to be funded.
- There were more service users than expected who wanted to test substances that are not suitable for identification in FTIR or UPLC-PDA technology. These include plant materials (especially cannabis) and steroids. As above, the trade-offs between time to conduct analysis, costs of equipment and the ability to resolve the contents of complex samples need to be considered into the future and clear messaging to the community around what substances can be tested.
- Equipment selected for the service represent a trade-off between time to conduct analysis, costs of
 equipment and the ability to resolve the contents of complex samples. The contents of a sample could
 not be identified with high confidence in a number of cases. It is likely that the majority of these
 samples would be able to be identified using GC-MS offsite. Future implementations of the service
 would be well served to include funding and a service plan for timely completion of onsite ultraperformance liquid chromatography-photodiode array mass spectrometry (UPLC-PDA-MS) or offsite
 GC-MS. Onsite UPLC-PDA-MS would extend existing UPLC-PDA capacity by adding a mass
 spectrometer that would allow for the greater sensitivity for a wide range of analytes including
 benzodiazepines and steroids that provide challenges for existing equipment. The provision of MS
 could also replace the use of FTS for the detection of fentanyl derivatives or other new synthetic

opioids. Communication of results from an off-site GC-MS machine to service users would require a comprehensive plan to provide results back to service users in a way that ensures privacy and equity.

- While the original service model outlines specified roles for staff from different professional fields, staff report that the model should be revised to streamline the service. There was a strong opinion that the end of the pilot offers an opportunity to consolidate staffing and focus on quality chemical analyses and associated harm reduction information.
- The current facility was deemed inadequate by service users and staff. It is recommended that a new facility with better access to parking, a larger space for waiting and consultation, and a suitable room/s for analytical testing is identified.
- There is value in the service continuing to implement a comprehensive operational service data system, with its associated analytical and reporting components in order to maintain accountability, contribute to quality improvement, and to be a model from which others can learn. However, the quantity of data currently collected should be minimised and streamlined.

6 CONCLUSIONS

This evaluation covers the first six months of implementation of a novel drug checking and health service in Canberra, ACT. Within a six hour weekly period CanTEST is delivering drug checking and health services to a range of people. Half the drugs were found to contain a substance not expected by the service user, evidencing the inconsistent drug market and need for drug checking to improve community safety. We recommend that CanTEST should continue to provide the service broadly along the current lines until the conclusion of the pilot in August 2023 and that ACT Health consider the contextual issues outlined in this report in re-funding the service.

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8 APPENDICES

SERVICE DATA (INCLUDING PRE AND POST SURVEYS) COLLECTION TOOL

INTAKE

Add new visit		
Reopen current entry		
Add new participant		
Exclude entry or Withdraw participant		
Please enter personalised ID		
Client's 'code name' Client's Day of Birth (E.g., 01/01/2000) Client's favourite colo	our	
p_id		
Personalised ID		
Asked of the client: Have you visited the service before and submitted a drug sample for testing?	000	Yes No Don't know/Didn't respond

SCREENING

date_visit	
time_visit	
Start date and time	
Visit ID: [record_id]	
Enter staff initials (Service worker)	
Is the client visiting by themselves or as a group?	 One person Group of people
Record the total number of people in the group:	
Asked of the client: Are you intending to submit a drug sample (or samples) for testing today?	 ○ Yes ○ No ○ Don't know/Didn't respond
For staff: Enter assessment of client capacity	 ○ Yes, capable ○ No, not capable ○ No, not able to assess (e.g. Service is closing)
For staff: As a group of people is presenting, enter the number of people who are deemed capable:	
You have entered: [s2_group_capable] (capable) of [s1_group_total] (total number in group)	
For staff: Waiver signed?	 Yes No, refused No, not required (e.g., seeing the nurse) No, other reason
For staff: Specify other reason waiver was not signed by the main person presenting	
For staff: As a group of people is presenting, enter the number of people who signed the waiver	
You have entered: [s2_group_waiver] (signed waiver) of [s2_group_capable] (deemed capable) of [s1_group_total] (total number in group)	
Asked of the client: How many samples would you like to have tested?	

REDCap

For staff: How many samples will be submitted for testing?	$ \begin{array}{c} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \end{array} $
NEW QUESTION FOR STAFF: Is client planning to use the tested when attending an upcoming festival (e.g., Spilt Milk)?	 Yes drug(s) No Client unsure
For staff: Does the client consent to the data collection through the pre- and post-surveys?	○ Yes○ No, does not consent (Do not
read out responses)	
For staff: Provide client with sticky notes for clients to label their samples: [record_id]-A through [record_id]-E (depending how many samples are being submitted)	○ Yes ○ No
Confirm client has sticky notes to label their samples:	
Visit ID:	
contact_complete	
questionnaire_complete	



Visit ID: [record_id]

Part 1 Thanks for agreeing to enter this data. First, we want to ask you some general questions about the drug you'd like to test today. You can select 'not sure' or 'prefer not to say' to any question.

Part 1 Thanks for agreeing to enter this data. First, we want to ask you some general questions about the drugs you'd like to test today. You can select 'not sure' or 'prefer not to say' to any question.

Refer to the drug labelled 'Sample [record_id] A' and answer the following questions. You will then be asked the same questions for your other samples.

What do you think the drug being tested is? Please select one response. If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.	 Amphetamine Benzodiazepine Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDMA/ecstasy Methadone Morphine
	 Methamphetamine Oxycodone PMA PMMA Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.	

If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.



If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.	
If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.	
What makes you think the sample drug is [s4_expected] / [s4_expected_other]? Please read all response options and select all that apply.	 Already tried it Someone else already tried it That is what I was told by the person supplying the drug I have tested it using a drug testing kit Other reason Not sure Rather not say
Please specify other reason you think that the drug you are getting tested today is [s4_expected] / [s4_expected_other]:	
If you or someone else has already tried the drug you are getting tested today, did you have any unexpected or bad effects from the drug?	 No, expected effects Yes, unexpected psychoactive effect Yes, bad physical effects Not sure Rather not say
Where did this drug come from? Select one response	 Dealer Friend/Relative/Workmate Acquaintance Online surface web (E.g., Facebook) Online darknet (E.g., Silkroad) Other source Not sure Rather not say
If "Other", please specify where this drug came from. Please don't provide specific details, just a broad description.	

Reminder:

Continue referring to the drug labelled 'Sample [record_id] A' and answer the following questions. You will then be asked the same questions for your other sample/s.

Thinking about the drug that you are getting tested	$\bigcirc 0 = \text{Definitely will not}$
today, how likely is it that you will use it?	$\bigcup_{i=1}^{n}$
	$\bigcirc 2$
	○ 3
	○ 4
	Õ 5
	○ 6
	○ 7
	○ 8
	Õ 9
	\bigcirc 10 = Definitely will
	O Unsure, depends on testing result
	\bigcirc Unsure, depends on other reason

O Rather not say

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If you were to use the drug that you are getting tested today, would you do any of the following? Read and mark all that apply	 Space out my use of this drug (i.e., have multiple doses) Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Have you ever used this drug type before?	 No Yes, once or twice Yes, three or more times Not sure Rather not say
Sample [record_id] B	
What do you think the drug being tested is? Please select one response. If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.	 Amphetamine Benzodiazepine Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDMA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say

Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.

Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.

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If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.	
If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.	
If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.	
What makes you think the sample drug is [s4_expected_2] / [s4_expected_other_2]? Please read all response options and select all that apply.	 Already tried it Someone else already tried it That is what I was told by the person supplying the drug I have tested it using a drug testing kit Other reason Not sure Rather not say
Please specify other reason you think that the drug you are getting tested today is [s4_expected_2] / [s4_expected_other_2]:	
If you or someone else has already tried the drug you are getting tested today, did you have any unexpected or bad effects from the drug?	 No, expected effects Yes, unexpected psychoactive effect Yes, bad physical effects Not sure Rather not say
Where did this drug come from? Select one response	 Dealer Friend/Relative/Workmate Acquaintance Online surface web (E.g., Facebook) Online darknet (E.g., Silkroad) Other source Not sure Rather not say
If "Other", please specify where this drug came from. Please don't provide specific details, just a broad description.	
Thinking about the Sample [record_id] B drug that you are getting tested today, how likely is it that you will use it?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure, depends on testing result Unsure, depends on other reason Rather not say



If you were to use the drug that you are getting tested today, would you do any of the following? Read and mark all that apply Have you ever used this drug type before?	 Space out my use of this drug (i.e., have multiple doses) Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Sample [record_id] C	
What do you think the drug being tested is? Please select one response. If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.	 Amphetamine Benzodiazepine Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDMA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.	

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.	
If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.	
What makes you think the sample drug is [s4_expected_3] / [s4_expected_other_3]? Please read all response options and select all that apply.	 Already tried it Someone else already tried it That is what I was told by the person supplying the drug I have tested it using a drug testing kit Other reason Not sure Rather not say
Please specify other reason you think that the drug you are getting tested today is [s4_expected_3] / [s4_expected_other_3]:	
If you or someone else has already tried the drug you are getting tested today, did you have any unexpected or bad effects from the drug?	 No, expected effects Yes, unexpected psychoactive effect Yes, bad physical effects Not sure Rather not say
Where did this drug come from? Select one response	 Dealer Friend/Relative/Workmate Acquaintance Online surface web (E.g., Facebook) Online darknet (E.g., Silkroad) Other source Not sure Rather not say
If "Other", please specify where this drug came from. Please don't provide specific details, just a broad description.	
Thinking about the Sample [record_id] C drug that you are getting tested today, how likely is it that you will use it?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure, depends on testing result Unsure, depends on other reason Rather not say



If you were to use the drug that you are getting tested today, would you do any of the following? Read and mark all that apply Have you ever used this drug type before?	 Space out my use of this drug (i.e., have multiple doses) Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Sample [record_id] D	
What do you think the drug being tested is? Please select one response. If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.	 Amphetamine Benzodiazepine Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDMA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine Buprenorphine Buprenorphine Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.	

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.	
If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.	
What makes you think the sample drug is [s4_expected_4] / [s4_expected_other_4]? Please read all response options and select all that apply.	 Already tried it Someone else already tried it That is what I was told by the person supplying the drug I have tested it using a drug testing kit Other reason Not sure Rather not say
Please specify other reason you think that the drug you are getting tested today is [s4_expected_4] / [s4_expected_other_4]:	
If you or someone else has already tried the drug you are getting tested today, did you have any unexpected or bad effects from the drug?	 No, expected effects Yes, unexpected psychoactive effect Yes, bad physical effects Not sure Rather not say
Where did this drug come from? Select one response	 Dealer Friend/Relative/Workmate Acquaintance Online surface web (E.g., Facebook) Online darknet (E.g., Silkroad) Other source Not sure Rather not say
If "Other", please specify where this drug came from. Please don't provide specific details, just a broad description.	
Thinking about the Sample [record_id] D drug that you are getting tested today, how likely is it that you will use it?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure, depends on testing result Unsure, depends on other reason Rather not say



If you were to use the drug that you are getting tested today, would you do any of the following?	Space out my use of this drug (i.e., have multiple doses)
Read and mark all that apply	 Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Have you ever used this drug type before?	 No Yes, once or twice Yes, three or more times Rather not say
Sample [record_id] E	
What do you think the drug being tested is? Please select one response. If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.	 Amphetamine Benzodiazepine Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDMA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.	

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.	
If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.	
What makes you think the sample drug is [s4_expected_5] / [s4_expected_other_5]? Please read all response options and select all that apply.	 Already tried it Someone else already tried it That is what I was told by the person supplying the drug I have tested it using a drug testing kit Other reason Not sure Rather not say
Please specify other reason you think that the drug you are getting tested today is [s4_expected_5] / [s4_expected_other_5]:	
If you or someone else has already tried the drug you are getting tested today, did you have any unexpected or bad effects from the drug?	 No, expected effects Yes, unexpected psychoactive effect Yes, bad physical effects Not sure Rather not say
Where did this drug come from? Select one response	 Dealer Friend/Relative/Workmate Acquaintance Online surface web (E.g., Facebook) Online darknet (E.g., Silkroad) Other source Not sure Rather not say
If "Other", please specify where this drug came from. Please don't provide specific details, just a broad description.	
Thinking about the Sample [record_id] E drug that you are getting tested today, how likely is it that you will use it?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure, depends on testing result Unsure, depends on other reason Rather not say





If you were to use the drug that you are getting tested today, would you do any of the following? Read and mark all that apply	 Space out my use of this drug (i.e., have multiple doses) Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Have you ever used this drug type before?	 No Yes, once or twice Yes, three or more times Rather not say
Part 2: About You These next questions are some broad question different types of people who might be accessing the service and can always select 'rather not say' if you don't want to respond, or ' of these questions again if you visit the service in future.	how we can best meet their needs. Remember, you
What is your gender?	 Man or male Woman or female Non-binary [I/They] use a different term (please specify) Rather not answer
Please specify if I/they use a different term	
What is your age in years?	(Enter 999 if you'd rather not say)
What region do you live in?	 Belconnen Central Canberra Gungahlin Tuggeranong Woden Western Creek Molonglo elsewhere in ACT NSW Other Australian state/territory (QLD, SA, VIC, TAS, WA, NT) Overseas No fixed address Rather not say



Which of the following drugs have you used in the LAST MONTH? Select all that apply	 Benzodiazepines (e.g., Xanax, Valium) Cannabis Cocaine MDMA/ecstasy GHB/GBL/1,4-BD (liquid E) Heroin LSD (acid) Ketamine (special K) Other psychedelics (e.g., DMT) Methamphetamine (e.g., speed, crystal, ice) Methadone/buprenorphine/buprenorphine-naloxone Fentanyl Morphine (e.g., MS Contin) Oxycodone (e.g., OxyContin) Pharmaceutical opioids (e.g., tramadol, tapentadol, codeine) Fentanyl analogues (e.g., carfentanyl) Other synthetic drugs (e.g., Spice, Kronic, mephedrone, NBOMe) None Other (specify) Rather not say
Which other drug/s have you used in the LAST MONTH?	
Have you injected any drug in the last month?	Y O es No Not sure Rather not say
How often did you use drugs in the last month? (don't count cannabis if you've used it in the past month) Select the most appropriate option	 Not in the last month Weekly or less More than weekly, not daily Daily Not sure Rather not say
Have you ever accessed a healthcare worker before for s information or advice about drug use? (This could be a peer worker, an alcohol and other drugs worker or other healthcare professional)	 Ye No Not sure Rather not say
Have you ever tested drugs before in Australia? Tick all that apply	No Yes, using a reagent kit Yes, using fentanyl test stips Yes, used this service before Yes, at Groovin' the Moo Canberra Yes, other service in Australia (specify) Yes, outside of Australia Rather not say
Please specify the other Australian testing service/s you used:	
Have you ever had a bad effect from drugs (other than alcohol) - one that you received medical assistance for?	 No Yes, but not in the last year Yes, in the last year Rather not say

Can ANU contact you in the coming days for a brief online confidential survey and/or telephone interview about your experience here?

This research is being carried out by a group of researchers at ANU who, collectively, have decades of experience conducting research into drug use, and who are committed to supporting the community of people who use drugs. This research will help inform evaluation and running of this service to make it more responsive to people's needs. People who take part will receive a \$20 gift voucher on completion of a 5-minute brief confidential survey and/or \$40 voucher on completion of a short telephone interview, whichever you'd prefer.

Click here to enter your contact details

Great! You only need to enter your contact details if you are interested in the follow-up survey with ANU.

You can provide your email address or if you'd prefer, your mobile number. You don't need to give your name.

Thank you for completing those questions! Your responses will help inform evaluation and running of this service to make sure it can be responsive to people's needs. Please hand the tablet back to the staff member and we'll get to testing your samples for you!

⊖ Yes

○ No thank you



Visit ID: [record_id]

Date

Time

Number of samples: [s2_samples]

TESTING NOT REQUIRED

SAMPLE ASSESSMENT & FTIR TESTING Note for chemists: Ask the client to present the sample/s. If more than one sample is being tested, ensure each sample is labelled with the Sample ID (REDCap ID followed by A, B, C etc. in separate bags.)

Enter staff initials (Chemist)

Sample A ID

Sample [record_id] A: Expected drug

What do you think the drug being tested is?

Please select one response.

If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.

○ Amphetamine

- Benzodiazepine
- Synthetic cannabinoids
- Cocaine
- Dexamphetamine
- Fentanyl
- Fentanyl analogue (e.g., carfentanyl)
- ⊖ GHB/GBL/1,4-BD
- ⊖ Heroin
- Č Ketamine
- Ó MDA
- O MDMA/ecstasy

- Methamphetamine
 Oxycodone

- Buprenorphine
- Õ Buprenorphine-naloxone
- Õ Codeine
- Ŏ Tapentadol
- O Tramadol
- O Steroid
- ◯ Other
- Not sure
- Rather not say

Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.

Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.

If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.

If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.

Sample B ID

Sample [record_id] B: Expected drug

What do you think the drug being tested is?

Please select one response.

If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.

- Amphetamine
- Benzodiazepine
- Cannabis
- O Synthetic cannabinoids
- O Dexamphetamine
- O Fentanyl
- Fentanyl analogue (e.g., carfentanyl)
- ⊖ GHB/GBL/1,4-BD
- \bigcirc Heroin
- \bigcirc LSD
- Ketamine
- Ó MDA
- O MDEA
- MDMA/ecstasy
- Methadone
- O Methamphetamine
- Oxycodone○ PMA

Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.

Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.

If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.

If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.

Sample C ID

Sample [record_id] C: Expected drug

What do you think the drug being tested is?

Please select one response.

If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.

- Amphetamine
- Benzodiazepine
- Cannabis
- Synthetic cannabinoids
- O Dexamphetamine
- O Fentanyl
- Fentanyl analogue (e.g., carfentanyl)
- ⊖ GHB/GBL/1,4-BD
- ⊖ Heroin
- \bigcirc LSD
- Ketamine
- Ŏ MDA
- Ó MDEA
- MDMA/ecstasy
- \bigcirc Methadone
- O Methamphetamine
- Oxycodone○ PMA



Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.

Please specify what analogue variant you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.

If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.

If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.

Sample D ID

Sample [record_id] D: Expected drug

What do you think the drug being tested is?

Please select one response.

If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.

- Amphetamine
- Benzodiazepine
- Cannabis
- Synthetic cannabinoids
- O Dexamphetamine
- O Fentanyl
- Fentanyl analogue (e.g., carfentanyl)
- ⊖ GHB/GBL/1,4-BD
-) Heroin
- \bigcirc LSD
- Ketamine
- Ŏ MDA
- Ó MDEA
- MDMA/ecstasy
- O Methadone
- O Methamphetamine
- Oxycodone○ PMA



Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.

Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.

If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.

If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.

If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.

Sample E ID

Sample [record_id] E: Expected drug

What do you think the drug being tested is?

Please select one response.

If you think the sample might contain multiple drugs, please select 'other' and write in the drugs you think it contains.

- Amphetamine
- Benzodiazepine
- Cannabis
- Synthetic cannabinoids
- O Dexamphetamine
- O Fentanyl
- Fentanyl analogue (e.g., carfentanyl)
- ⊖ GHB/GBL/1,4-BD
- \bigcirc Heroin
- \bigcirc LSD
- Ketamine
- Ŏ MDA
- Ó MDEA
- MDMA/ecstasy
- \bigcirc Methadone
- O Methamphetamine
- Oxycodone○ PMA



Specify other drug	
Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue you think it is (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
If you can, please specify what 'benzodiazepine' you think it is (e.g., Xanax, Valium). You can write 'not sure' if you're unsure.	
If you can, please specify what 'synthetic cannabinoid' you think it is. You can write 'not sure' if you're unsure.	
If you can, please specify what steroid you think it is. You can write 'not sure' if you're unsure.	
SAMPLE [record_id] A: ASSESSMENT	
Is the sample eligible for testing?	○ Yes ○ No
Refer to manual for further information or consult with chemical analyst.	
Client agrees to submit drug for testing?	 Yes No, refused No, other reason
Specify other reason sample was not submitted for testing	
Instructions for chemist: Explain to the client that they are req	uired to take a photo of each sample that is tested.
Upload photo of sample	
Form	 Pill/tablet Capsule Powder Crystalline Liquid Other
Specify other form	
Please provide any comments on form e.g., 'blue and white unmarked capsule' if you would like.	
Gross mass (milligrams)	
SAMPLE [record_id] B: ASSESSMENT	



Is the sample eligible for testing?	○ Yes
Refer to manual for further information or consult with chemical analyst.	
Client agrees to submit drug for testing?	 Yes No, refused No, other reason
Specify other reason sample was not submitted for testing	
Upload photo of sample	
Form	 Pill/tablet Capsule Powder Crystalline Liquid Other
Specify other form	
Please provide any comments on form e.g., 'blue and white unmarked capsule' if you would like.	
Gross mass (milligrams)	
SAMPLE [record_id] C ASSESSMENT	
Is the sample eligible for testing? Refer to manual for further information or consult with chemical analyst.	○ Yes○ No
Client agrees to submit drug for testing?	 Yes No, refused No, other reason
Specify other reason sample was not submitted for testing	
Upload photo of sample	
Form	 Pill/tablet Capsule Powder Crystalline Liquid Other
Specify other form	



Please provide any comments on form e.g., 'blue and white unmarked capsule' if you would like.		
Gross mass (milligrams)		
SAMPLE [record_id] D ASSESSMENT		
Is the sample eligible for testing? Refer to manual for further information or consult with chemical analyst.	○ Yes○ No	
Client agrees to submit drug for testing?	 Yes No, refused No, other reason 	
Specify other reason sample was not submitted for testing		
Upload photo of sample		
Form	 Pill/tablet Capsule Powder Crystalline Liquid Other 	
Specify other form		
Please provide any comments on form e.g., 'blue and white unmarked capsule' if you would like.		
Gross mass (milligrams)		
SAMPLE [record_id] E ASSESSMENT		
Is the sample eligible for testing? Refer to manual for further information or consult with chemical analyst.	○ Yes○ No	
Client agrees to submit drug for testing?	 Yes No, refused No, other reason 	
Specify other reason sample was not submitted for testing		

Upload photo of sample



Pill/tablet
 Capsule
 Powder
 Crystalline
 Liquid
 Other

Specify other form

Please provide any comments on form e.g., 'blue and white unmarked capsule' if you would like.

Gross mass (milligrams)

FTIR Testing and Results

Instructions for chemists:

Perform a FTIR analysis of the sample and record the top match identity and score. Report findings to the client and harm reduction staff in the bands of high confidence (>750), lower confidence (600 to 750) or low confidence (< 600).

Perform an auto-subtract and re-analysis of the top match and record the second component top match and score. The detection of a second component may indicate the presence of an adulterant. Report findings to client and harm reduction staff using the confidence bands above.

For each analysis add a disclaimer that there may be components of the sample that FTIR analysis cannot detect.

The detection of unexpected substances or the identification of a second component suggests the need for further analysis by UPLC-PDA.

For expected opioids, the use of fentanyl test strips is suggested.

Enter chemist initials for Sample [record_id] A FTIR testing:

Sample [record_id] A: FTIR first match

0	Amphetamine
Ó	Methamphetamine
\bigcirc	Cocaine
Ο	Heroin
\bigcirc	Ketamine
\bigcirc	MDMA
\bigcirc	MDA
\bigcirc	MDEA
Ο	PMA
Ο	Morphine
Ο	Fentanyl
\bigcirc	Methadone
\bigcirc	GHB
\bigcirc	LSD
Ο	Oxycodone
\bigcirc	Other

Specify other drug

FTIR first match score



FTIR first match confidence Note: High confidence (>750) Lower confidence (600-750) Low confidence (< 600)	 High confidence Lower confidence Low confidence N/A
FTIR second component	 Second component not identified Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other
Specify other drug	
FTIR second component score	
FTIR second component confidence Note: High confidence (>750) Lower confidence (600-750) Low confidence (< 600)	 High confidence Lower confidence Low confidence N/A
Optional comments (e.g., observations on sample or alternative search methods)	
ADDITIONAL TESTING OPTIONS	
Explain the benefits and limitations of additional UPLC-PDA test containing Fentanyl.	ing; Offer Fentanyl testing if sample is at risk of
Client request additional UPLC-PDA testing?	○ Yes○ No
Client request additional FTS testing?	○ Yes ○ No
Enter chemist initials for Sample [record_id] B FTIR testing:	



Sample [record_id] B: FTIR first match	○ Amphetamine	
	 Methamphetamine 	
	○ Cocaine	
	🔿 Heroin	
	$\check{\bigcirc}$ Ketamine	
	\bigcirc PMA	
	<u> </u>	
	O Morphine	
	○ Fentanyl	
	 Methadone 	
) GHB	
	Oxycodone	
	◯ Other	
Specify other drug		
FTIR first match score		
FTID first match confidence	○ High confidence	
FTIR first match confidence	O High confidence	
	 Lower confidence 	
Note:	🔿 Low confidence	
High confidence (>750)	\bigcirc N/A	
Lower confidence (600-750)		
Low confidence (< 600)		
FTIR second component	Second component not identified	
FTIR second component	Second component not identified	
FTIR second component	Amphetamine	
FTIR second component		
FTIR second component	 Amphetamine Methamphetamine 	
FTIR second component	 Amphetamine Methamphetamine Cocaine 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB 	
	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone 	
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone 	
	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone 	
Specify other drug	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone 	
	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone 	
Specify other drug	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone 	
Specify other drug FTIR second component score	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	
Specify other drug	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	
Specify other drug FTIR second component score FTIR second component confidence	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	
Specify other drug FTIR second component score FTIR second component confidence Note:	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	
Specify other drug FTIR second component score FTIR second component confidence	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	
Specify other drug FTIR second component score FTIR second component confidence Note: High confidence (>750)	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	
Specify other drug FTIR second component score FTIR second component confidence Note:	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other 	



○ Yes ○ No			

Client request additional UPLC-PDA testing?

Optional comments (e.g., observations on sample or

alternative search methods)

Enter chemist initials for §	Sample [record_	_id] C FTIR
testing:		

Sample [record_id] C: FTIR first match	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA
	O PMA O Morphine
	 ○ Fentanyl ○ Methadone
	⊖ GHB ⊖ LSD

⊖ Yes ⊖ No

Specify other drug

FTIR first match score

FTIR first match confidence

Note: High confidence (>750) Lower confidence (600-750) Low confidence (< 600) High confidence
 Lower confidence
 Low confidence
 N/A

Oxycodone
 Other



FTIR second component	 Second component not identified Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other
Specify other drug	
FTIR second component score	
FTIR second component confidence Note: High confidence (>750) Lower confidence (600-750) Low confidence (< 600)	 High confidence Lower confidence Low confidence N/A
Optional comments (e.g., observations on sample or alternative search methods)	
Client request additional UPLC-PDA testing?	○ Yes○ No
Client request additional FTS testing?	○ Yes ○ No
Enter chemist initials for Sample [record_id] D FTIR testing:	



Sample [record_id] D: FTIR first match	○ Amphetamine
	Methamphetamine
	○ Heroin
	○ Ketamine
	O PMA
	⊖ Fentanyl
	O Methadone
	GHB
	Other
Specify other drug	
FTIR first match score	
FTIR first match confidence	○ High confidence
	O Lower confidence
Note:	🚫 Low confidence
High confidence (>750)	Ŏ N/A
Lower confidence (600-750)	0
Low confidence (< 600)	
FTIR second component	Second component not identified
FTIR second component	Second component not identified
FTIR second component	Amphetamine
FTIR second component	 Amphetamine Methamphetamine
FTIR second component	 Amphetamine Methamphetamine Cocaine
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB
	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone
FTIR second component	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone
	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone
Specify other drug	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone
	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone
Specify other drug	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone
Specify other drug FTIR second component score	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other
Specify other drug	Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other High confidence
Specify other drug FTIR second component score FTIR second component confidence	Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other High confidence Lower confidence
Specify other drug FTIR second component score FTIR second component confidence Note:	Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other High confidence Lower confidence Lower confidence Lower confidence
Specify other drug FTIR second component score FTIR second component confidence Note: High confidence (>750)	Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other High confidence Lower confidence
Specify other drug FTIR second component score FTIR second component confidence Note:	Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other High confidence Lower confidence Lower confidence Lower confidence



Optional comments (e.g., observations on sample or alternative search methods)	
Client request additional UPLC-PDA testing?	○ Yes ○ No
Client request additional FTS testing?	○ Yes ○ No
Enter chemist initials for Sample [record_id] E FTIR testing:	
Sample [record_id] E: FTIR first match	 Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone GHB LSD Oxycodone Other
Specify other drug	
FTIR first match score	
FTIR first match confidence Note: High confidence (>750) Lower confidence (600-750) Low confidence (< 600)	 High confidence Lower confidence Low confidence N/A



FTIR second component	 Second component not identified Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Fentanyl Methadone 	
	 GHB LSD Oxycodone Other 	
Specify other drug		
FTIR second component score		
FTIR second component confidence Note: High confidence (>750) Lower confidence (600-750) Low confidence (< 600)	 High confidence Lower confidence Low confidence N/A 	
Optional comments (e.g., observations on sample or alternative search methods)		
Client request additional UPLC-PDA testing?	○ Yes ○ No	
Client request additional FTS testing?	○ Yes ○ No	
RETAINING SAMPLES		
Advise client that FTIR samples are deidentified and will be re-	tained for further analysis by ACT Health.	
FTIR CHEMIST SUMMARY		
Chemist to check FTIR results have been entered correctly		
Sample [record_id] A		
FTIR first drug match = [s6_firstmatch] / [s6_firstmatch_othe	er]	
score = [s6_score1]		
[s6_conf1]		
FTIR second component = [s6_secondcomp] / [s6_second_o	ther]	
score = [s6_score2]		
[s6_conf2]		

```
Sample [record_id] B

FTIR first drug match = [s6_firstmatch_v2] / [s6_firstmatch_other_v2]

score = [s6_score1_v2]

[s6_conf1_v2]

FTIR second component = [s6_secondcomp_v2] / [s6_second_other_v2]

score = [s6_score2_v2]

[s6_conf2_v2]

Sample [record_id] C

FTIR first drug match = [s6_firstmatch_v3] / [s6_firstmatch_other_v3]

score = [s6_score1_v3]

[s6_conf1_v3]

FTIR second component = [s6_secondcomp_v3] / [s6_second_other_v3]
```

score = [s6_score2_v3]

[s6_conf2_v3]

Sample [record_id] D

FTIR first drug match = [s6_firstmatch_v4] / [s6_firstmatch_other_v4]

score = [s6_score1_v4]

[s6_conf1_v4]

FTIR second component = [s6_secondcomp_v4] / [s6_second_other_v4]

score = [s6_score2_v4]

[s6_conf2_v4]

Sample [record_id] E

FTIR first drug match = [s6_firstmatch_v5] / [s6_firstmatch_other_v5]

score = [s6_score1_v5]

[s6_conf1_v5]

FTIR second component = [s6_secondcomp_v5] / [s6_second_other_v5]

score = [s6_score2_v5]

[s6_conf2_v5]



Visit ID: [record_id]

Number of samples: [s2_samples]

TESTING NOT REQUIRED

UPLC-PDA TESTING

Instructions for Chemists:

Perform an UPLC-PDA analysis of the sample. For each targeted drug record the drug identity and % purity. Record the presence of all unidentified chromatographic peaks. Report the findings to the client and harm reduction staff for any targeted drugs on a semi-quantitative scale of high (>66%), medium (33-66%) and low (< 33%) purity. Highlight the presence of any unidentified peaks that may indicate impurities.

For each analysis, add a disclaimer that reported % purity is only approximate and so is reported on a semi-quantitative scale. Add the disclaimer that UPLC-PDA cannot report on the identity or % purity of compounds associated with unidentified peaks.

For expected opioids, suggest the use of fentanyl test strips.

SAMPLE [record_id] A

Enter chemist initials for UPLC testing

Sample contains target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?

List unknown peaks here:

% purity targeted drug 1

UPLC-PDA targeted drug 1 purity grade

Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%) High purity
 Medium purity
 Low purity
 N/A



Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 2	
UPLC-PDA targeted drug 2 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 3	
UPLC-PDA targeted drug 3 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A

Optional comments

SAMPLE [record_id] B

Enter chemist initials for UPLC testing	
Sample contains target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 1	
UPLC-PDA targeted drug 1 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	

% purity targeted drug 2



UPLC-PDA targeted drug 2 purity grade	○ High purity
	Medium purity
Note:	\bigcirc Low purity
High purity (>66%)	⊖ N/A
Lower purity (33-66%) Low purity (< 33%)	
Low pullty (< 35%)	
Sample contains another target drug?	○ No, not detected
Sample contains another target utug?	Amphetamine
	○ Cocaine
	Ŏ Heroin
	○ Ketamine
	 ○ MDEA ○ PMA
	O Unknown
	No, testing did not work?
	Testing not conducted?
List unknown peaks here:	
% purity targeted drug 3	
% pully largeled drug 5	
UPLC-PDA targeted drug 3 purity grade	⊖ High purity
	\bigcirc Medium purity
Note:	\bigcirc Low purity
High purity (>66%)	⊖ N/A
Lower purity (33-66%)	
Low purity (< 33%)	
Optional comments	
SAMPLE [record_id] C	
Enter chemist initials for UPLC testing	
Comple contains torget days?	
Sample contains target drug?	 No, not detected Amphetamine
	Ketamine
	 ○ PMA ○ Morphine
	O No, testing did not work?
	O Testing not conducted?



% purity targeted drug 1	
UPLC-PDA targeted drug 1 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 2	
UPLC-PDA targeted drug 2 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Sample contains another target drug?	 No, not detected Amphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?

List unknown peaks here:



List unknown peaks here:	
% purity targeted drug 3	
UPLC-PDA targeted drug 3 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Optional comments	
SAMPLE [record_id] D	
Enter chemist initials for UPLC testing	
Sample contains target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 1	
UPLC-PDA targeted drug 1 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A

Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 2	
UPLC-PDA targeted drug 2 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 3	
UPLC-PDA targeted drug 3 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A

Optional comments

SAMPLE [record_id] E

Enter chemist initials for UPLC testing	
Sample contains target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	
% purity targeted drug 1	
UPLC-PDA targeted drug 1 purity grade Note: High purity (>66%) Lower purity (33-66%) Low purity (< 33%)	 High purity Medium purity Low purity N/A
Sample contains another target drug?	 No, not detected Amphetamine Methamphetamine Cocaine Heroin Ketamine MDMA MDA MDEA PMA Morphine Unknown No, testing did not work? Testing not conducted?
List unknown peaks here:	

% purity targeted drug 2



UPLC-PDA targeted drug 2 purity grade	O High purity
Note:	 Medium purity Low purity
High purity (>66%)	\bigcirc N/A
Lower purity (33-66%)	
Low purity (< 33%)	
Sample contains another target drug?	 No, not detected Amphetamine
	Methamphetamine
	○ Ketamine ○ MDMA
	Ŏ MDEA
	 ○ Morphine ○ Unknown
	O No, testing did not work?
	\bigcirc Testing not conducted?
List unknown peaks here:	
% purity targeted drug 3	
UPLC-PDA targeted drug 3 purity grade	 High purity Medium purity
Note:	
High purity (>66%)	Ŏ N/A
Lower purity (33-66%)	
Low purity (< 33%)	
Sample E: Optional comments	
FTS TESTING	
Instructions for chemists:	
Perform a FTS analysis of the sample. Record the result as posiclient and harm reduction staff.	itive, negative or invalid. Report the results to the
For each analysis, add a disclaimer that FTS may not detect all fentanyl derivatives leading to false negative.	
Add the disclaimer that some drugs including codeine, methamp analysis leading to a false positive.	phetamine and morphine can interfere with FTS
Enter chemist initials for FTS testing	
Sample [record_id] A FTS result	◯ Negative
	Õ Invalid
	O Not conducted



Optional comments		
Enter chemist initials for FTS testing		
Sample [record_id] B FTS result	 Negative Positive Invalid Not conducted 	
Optional comments		
Enter chemist initials for FTS testing		
Sample [record_id] C FTS result	 Negative Positive Invalid Not conducted 	
Optional comments		
Enter chemist initials for FTS testing		
Sample [record_id] D FTS result	 Negative Positive Invalid Not conducted 	
Optional comments		
Enter chemist initials for FTS testing		
Sample [record_id] E FTS result	 Negative Positive Invalid Not conducted 	
Optional comments		
Upload an additional photo for any of the submitted samples?	○ Yes ○ No	





(e.g. of FTS results)

Sample [record_id] B: Optional photo

(e.g. of FTS results)

Sample [record_id] C: Optional photo

(e.g. of FTS results)

Sample [record_id] D: Optional photo

(e.g. of FTS results)

Sample [record_id] E: Optional photo

(e.g. of FTS results)

RESULTS RECEIVED? Did the client receive the results of the test and were advised of the limitations of the analysis?

Sample [record_id] A:

○ Yes, results received and advised of limitations

 \bigcirc No, client departed the area before testing was complete

 \bigcirc No, other reason

Please identify other reason the client did not receive the results of the test

Sample [record_id] B:

○ Yes, results received and advised of limitations

O No, client departed the area before testing was complete

 \bigcirc No, other reason

Please identify other reason the client did not receive the results of the test

Sample [record_id] C:

Yes, results received and advised of limitations
 No, client departed the area before testing was complete
 No, other reason

Please identify other reason the client did not receive the results of the test

Sample [record_id] D:

 \bigcirc Yes, results received and advised of limitations

O No, client departed the area before testing was complete

 \bigcirc No, other reason

Please identify other reason the client did not receive the results of the test



Sample [record_id] E:

○ Yes, results received and advised of limitations

O No, client departed the area before testing was complete

 \bigcirc No, other reason

Please identify other reason the client did not receive the results of the test

RETAINING SAMPLES

Advise client that UPLC-PDA and FTS samples are deidentifed and may be retained for further analysis by ACT Health or Directions Health Services.

Sample [record_id] A: Retained UPLC-PDA sample for further analysis?

Yes
 No, declined
 No, not requested of the client

Sample [record_id] A: Retained FTS sample for further analysis?

Yes
 No, declined
 No, not requested of the client

Sample [record_id] B: Retained UPLC-PDA sample for further analysis?

○ Yes○ No, declined

 \bigcirc No, not requested of the client

Sample [record_id] B: Retained FTS sample for further analysis?

Yes
 No, declined
 No, not requested of the client

Sample [record_id] C: Retained UPLC-PDA sample for further analysis?

Yes
 No, declined
 No, not requested of the client

Sample [record_id] C: Retained FTS sample for further analysis?

Yes
 No, declined
 No, not requested of the client

Sample [record_id] D: Retained UPLC-PDA sample for further analysis?

Yes
 No, declined
 No, not requested of the client



Sample [record_id] D: Retained FTS sample for further analysis?

 \bigcirc Yes

 ${\tilde \bigcirc}$ No, declined

 \bigcirc No, not requested of the client

Sample [record_id] E: Retained UPLC-PDA sample for further analysis?

⊖ Yes

 \bigcirc No, declined \bigcirc No, not requested of the client

Sample [record_id] E: Retained FTS sample for further analysis?

⊖ Yes

 \bigcirc No, declined

O No, not requested of the client

SAMPLE DISPOSAL

Invite the client to dispose of their drugs now that they have additional information regarding their contents. They may do so later if they change their mind.

Sample [record_id] A: Did the client discard the drug at the service?	 No Yes Didn't bring the drug, just the sample Other
Please specify 'other' response	
Sample [record_id] B: Did the client discard the drug at the service?	 No Yes Didn't bring the drug, just the sample Other
Please specify 'other' response	
Sample [record_id] C: Did the client discard the drug at the service?	 No Yes Didn't bring the drug, just the sample Other
Please specify 'other' response	
Sample [record_id] D: Did the client discard the drug at the service??	 No Yes Didn't bring the drug, just the sample Other
Please specify 'other' response	



\bigcirc	No
Õ	Yes
Õ	Didr

Didn't bring the drug, just the sample
 Other

Please specify 'other' response	
ALERT INFO TO BE CAPTURED ELSEWHERE	
TO BE CAPTURED ELSEWHERE	○ Yes ○ No
Sample A: Has ACT Health been notified of dangerous substance?	\bigcirc N/A
TO BE CAPTURED ELSEWHERE	○ Yes ○ No
Sample A: Was a drug alert issued?	\bigcirc N/A
TO BE CAPTURED ELSEWHERE	 Closed alert Open alert
Sample A: What type of drug alert was issued?	 O Local alert
TO BE CAPTURED ELSEWHERE Sample B: Has ACT Health been notified of dangerous substance?	 ○ Yes ○ No ○ N/A
TO BE CAPTURED ELSEWHERE Sample B: Was a drug alert issued?	 ○ Yes ○ No ○ N/A
TO BE CAPTURED ELSEWHERE Sample B: What type of drug alert was issued?	 Closed alert Open alert Local alert
Sample C: Has ACT Health been notified of dangerous substance?	 ○ Yes ○ No ○ N/A
Sample C: Was a drug alert issued?	 ○ Yes ○ No ○ N/A
Sample C: What type of drug alert was issued?	 Closed alert Open alert Local alert
TO BE CAPTURED ELSEWHERE Sample D: Has ACT Health been notified of dangerous substance?	 ○ Yes ○ No ○ N/A
TO BE CAPTURED ELSEWHERE Sample D: Was a drug alert issued?	 ○ Yes ○ No ○ N/A



TO BE CAPTURED ELSEWHERE Sample D: What type of drug alert was issued?	 Closed alert Open alert Local alert
Sample E: Has ACT Health been notified of dangerous substance?	 ○ Yes ○ No ○ N/A
Sample E: Was a drug alert issued?	 ○ Yes ○ No ○ N/A
Sample E: What type of drug alert was issued?	 Closed alert Open alert Local alert
UPLC-PDA / FTS CHEMIST SUMMARY Chemist to check UPLC-P	DA / FTS results have been entered correctly
Sample [record_id] A	
UPLC-PDA drug match 1: [s7_targetdrug1]	

[s7_purity1]%

[s7_grade1]

UPLC-PDA drug match 2: [s7_targetdrug2]

[s7_purity2]%

[s7_grade2]

UPLC-PDA drug match 3: [s7_targetdrug3]

[s7_purity3]%

[s7_grade3]

Sample [record_id] A

FTS result:

[s8_ftsresult]

Sample [record_id] B

UPLC-PDA drug match 1: [s7_targetdrug1_v2]

[s7_purity1_v2]%

[s7_grade1_v2]

UPLC-PDA drug match 2: [s7_targetdrug2_v2]

[s7_purity2_v2]%

[s7_grade2_v2]

UPLC-PDA drug match 3: [s7_targetdrug3_v2]



[s7_grade3_v2]

Sample [record_id] B

FTS result:

[s8_ftsresult_v2]

Sample [record_id] C

UPLC-PDA drug match 1: [s7_targetdrug1_v3]

[s7_purity1_v3]%

[s7_grade1_v3]

UPLC-PDA drug match 2: [s7_targetdrug2_v3]

[s7_purity2_v3]%

[s7_grade2_v3]

UPLC-PDA drug match 3: [s7_targetdrug3_v3]

[s7_purity3_v3]%

[s7_grade3_v3]

Sample [record_id] C

FTS result:

[s8_ftsresult_v3]

Sample [record_id] D

UPLC-PDA drug match 1: [s7_targetdrug1_v4]

[s7_purity1_v4]%

[s7_grade1_v4]

UPLC-PDA drug match 2: [s7_targetdrug2_v4]

[s7_purity2_v4]%

[s7_grade2_v4]

UPLC-PDA drug match 3: [s7_targetdrug3_v4]

[s7_purity3_v4]%

[s7_grade3_v4]

Sample [record_id] D

FTS result:

[s8_ftsresult_v4]

Sample [record_id] E

UPLC-PDA drug match 1: [s7_targetdrug1_v5]

[s7_purity1_v5]%

[s7_grade1_v5]

UPLC-PDA drug match 2: [s7_targetdrug2_v5]

[s7_purity2_v5]%

[s7_grade2_v5]

UPLC-PDA drug match 3: [s7_targetdrug3_v5]

[s7_purity3_v5]%

[s7_grade3_v5]

Sample [record_id] E

FTS result:

[s8_ftsresult_v5]

Visit ID: [record_id]
Click here to open in new window
CLIENT RESULTS SUMMARY
Sample [record_id] A
Sample [record_id] A Expected drug: [s4_expected]
Sample [record_id] A Expected drug: [s4_expected] / [s4_expected_other]
Sample [record_id] A Expected drug: [s4_expected] / [s4_expected_fa]
Sample [record_id] A Expected drug: [s4_expected] / [s4_expected_benz]
Sample [record_id] A Expected drug: [s4_expected] / [s4_expected_sc]
Sample [record_id] A Expected drug: [s4_expected] / [s4_expected_strd]
Sample [record_id] A
Sample [record_id] A Expected drug: [s5_expected]
Sample [record_id] A Expected drug: [s5_expected] / [s5_expected_other]
Sample [record_id] A Expected drug: [s5_expected] / [s5_expected_fa]
Sample [record_id] A Expected drug: [s5_expected] / [s5_expected_benz]
Sample [record_id] A Expected drug: [s5_expected] / [s5_expected_sc]
Sample [record_id] A Expected drug: [s5_expected] / [s5_expected_strd]
Sample [record_id] A FTIR first drug match: [s6_firstmatch] / [s6_firstmatch_other] [s6_conf1]

FTIR second component: [s6_secondcomp] / [s6_second_other] [s6_conf2]

Sample [record_id] A UPLC-PDA testing identified the following drugs: [s7_targetdrug1] ([s7_grade1])

[s7_targetdrug2] ([s7_grade2])

[s7_targetdrug3] ([s7_grade3])

Sample [record_id] B
Sample [record_id] B Expected drug: [s4_expected_2]
Sample [record_id] B Expected drug: [s4_expected_2] / [s4_expected_other_2]
Sample [record_id] B Expected drug: [s4_expected_2] / [s4_expected_fa_2]
Sample [record_id] B Expected drug: [s4_expected_2] / [s4_expected_benz_2]
Sample [record_id] B Expected drug: [s4_expected_2] / [s4_expected_sc_2]
Sample [record_id] B Expected drug: [s4_expected_2] / [s4_expected_strd_2]
Sample [record_id] B
Sample [record_id] B Expected drug: [s5_expected_2]
Sample [record_id] B Expected drug: [s5_expected_2] / [s5_expected_other_2]
Sample [record_id] B Expected drug: [s5_expected_2] / [s5_expected_fa_2]
Sample [record_id] B Expected drug: [s5_expected_2] / [s5_expected_benz_2]
Sample [record_id] B Expected drug: [s5_expected_2] / [s5_expected_sc_2]
Sample [record_id] B Expected drug: [s5_expected_2] / [s5_expected_strd_2]

Sample [record_id] B FTIR first drug match: [s6_firstmatch_v2] / [s6_firstmatch_other_v2] [s6_conf1_v2]

FTIR second component: [s6_secondcomp_v2] / [s6_second_other_v2] [s6_conf2_v2]

Sample [record_id] B UPLC-PDA testing identified the following drugs: [s7_targetdrug1_v2] ([s7_grade1_v2])

 $[s7_targetdrug2_v2] ([s7_grade2_v2])$

[s7_targetdrug3_v2] ([s7_grade3_v2])

Sample [record_id] B Fentanyl testing was: [s8_ftsresult_v2]

Sample [record_id] C

Sample [record_id] C Expected drug: [s4_expected_3]

Sample [record_id] C Expected drug: [s4_expected_3] / [s4_expected_other_3]

Sample [record_id] C Expected drug: [s4_expected_3] / [s4_expected_fa_3]

Sample [record_id] C Expected drug: [s4_expected_3] / [s4_expected_benz_3]

Sample [record_id]	C Expe	ected drug: [s4	expected 3]	/[s4 e>	(pected sc 3]

Sample [record_id] C Expected drug: [s4_expected_3] / [s4_expected_strd_3]

Sample [record_id] C

Sample [record_id] C Expected drug: [s5_expected_3]

Sample [record_id] C Expected drug: [s5_expected_3] / [s5_expected_other_3]

Sample [record_id] C Expected drug: [s5_expected_3] / [s5_expected_fa_3]

Sample [record_id] C Expected drug: [s5_expected_3] / [s5_expected_benz_3]

Sample [record_id] C Expected drug: [s5_expected_3] / [s5_expected_sc_3]

Sample [record_id] C Expected drug: [s5_expected_3] / [s5_expected_strd_3]

Sample [record_id] C FTIR first drug match: [s6_firstmatch_v3] / [s6_firstmatch_other_v3] [s6_conf1_v3]

FTIR second component: [s6_secondcomp_v3] / [s6_second_other_v3] [s6_conf2_v3]

Sample [record_id] C UPLC-PDA testing identified the following drugs: [s7_targetdrug1_v3] ([s7_grade1_v3])

[s7_targetdrug2_v3] ([s7_grade2_v3])

[s7_targetdrug3_v3] ([s7_grade3_v3])

Sample [record_id] C Fentanyl testing was: [s8_ftsresult_v3]

Sample [record_id] D

Sample [record_id] D Expected drug: [s4_expected_4]

Sample [record_id] D Expected drug: [s4_expected_4] / [s4_expected_other_4]

Sample [record_id] D Expected drug: [s4_expected_4] / [s4_expected_fa_4]

Sample [record_id] D Expected drug: [s4_expected_4] / [s4_expected_benz_4]

Sample [record_id] D Expected drug: [s4_expected_4] / [s4_expected_sc_4]

Sample [record_id] D Expected drug: [s4_expected_4] / [s4_expected_strd_4]

Sample [record_id] D

Sample [record_id] D Expected drug: [s5_expected_4]

Sample [record_id] D Expected drug: [s5_expected_4] / [s5_expected_other_4]

Sample [record_id] D Expected drug: [s5_expected_4] / [s5_expected_fa_4]
Sample [record_id] D Expected drug: [s5_expected_4] / [s5_expected_benz_4]
Sample [record_id] D Expected drug: [s5_expected_4] / [s5_expected_sc_4]
Sample [record_id] D Expected drug: [s5_expected_4] / [s5_expected_strd_4]
Sample [record_id] D FTIR first drug match: [s6_firstmatch_v4] / [s6_firstmatch_other_v4] [s6_conf1_v4]

FTIR second component: [s6_secondcomp_v4] / [s6_second_other_v4] [s6_conf2_v4]

Sample [record_id] D UPLC-PDA testing identified the following drugs: [s7_targetdrug1_v4] ([s7_grade1_v4])

[s7_targetdrug2_v4] ([s7_grade2_v4])

[s7_targetdrug3_v4] ([s7_grade3_v4])

Sample [record_id] D Fentanyl testing was: [s8_ftsresult_v4]

Sample [record_id] E

Sample [record_id] E Expected drug: [s4_expected_5]

Sample [record_id] E Expected drug: [s4_expected_5] / [s4_expected_other_5]

Sample [record_id] E Expected drug: [s4_expected_5] / [s4_expected_fa_5]

Sample [record_id] E Expected drug: [s4_expected_5] / [s4_expected_benz_5]

Sample [record_id] E Expected drug: [s4_expected_5] / [s4_expected_sc_5]

Sample [record_id] E Expected drug: [s4_expected_5] / [s4_expected_strd_5]

Sample [record_id] E

Sample [record_id] E Expected drug: [s5_expected_5]

Sample [record_id] E Expected drug: [s5_expected_5] / [s5_expected_other_5]

Sample [record_id] E Expected drug: [s5_expected_5] / [s5_expected_fa_5]

Sample [record_id] E Expected drug: [s5_expected_5] / [s5_expected_benz_5]

Sample [record_id] E Expected drug: [s5_expected_5] / [s5_expected_sc_5]

Sample [record_id] E Expected drug: [s5_expected_5] / [s5_expected_strd_5]

FTIR second component: [s6_secondcomp_v5] / [s6_second_other_v5] [s6_conf2_v5]

Sample [record_id] E UPLC-PDA testing identified the following drugs: [s7_targetdrug1_v4] ([s7_grade1_v5])

[s7_targetdrug2_v4] ([s7_grade2_v5])

[s7_targetdrug3_v4] ([s7_grade3_v5])

Sample [record_id] E Fentanyl testing was: [s8_ftsresult_v5]

Visit ID: [record_id]	
Enter staff initials (AOD / peer worker / nurse)	
AOD INTERVENTIONS	
For staff: Client invited to AOD intervention or offered AOD referral?	 Yes, accepted Yes, did not accept Not invited (specify reason)
For staff: If not invited, specify reason	
For staff: AOD intervention delivered or referral given?	 Brief intervention General drug education Harm reduction education Overdose prevention education Naloxone training and Nyxoid provision Safer injecting education Harm minimisation / health information resources supplied Information referral Formal referral Other intervention not specified
For staff: If other, specify what intervention	
For staff: How many units of naloxone were given?	
Next section: Post-test Survey	
For staff: Is the client present and willing to complete the Post-Test Survey?	 Yes, willing to complete No, not willing to complete No, left early
(Do not read out response options)	\bigcirc No, other reason (specify)
For staff: If other, specify reason	

POSTTEST SURVEY

Visit ID: [record_id]

Enter Date and Time

Part 1 Thanks for agreeing to answer these questions to help inform the running of this service. First, we want to ask you some general questions about results you received today. You can select 'Unsure' or 'Rather not say' to any question.

Please refer to the drug labelled 'Sample [record_id] A' and answer the following questions. You will then be asked the same questions for your other samples.

SAMPLE [record_id] A	
Did the test results show what was in the drug sample?	 Yes No, I wasn't told No, sample wasn't eligible for testing No, sample wasn't submitted for testing Not sure Rather not say
What was in the drug sample?	Amphetamine
Please list all drugs identified. You can select 'other' to write in any other drugs identified that aren't in this list.	Benzodiazepine Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDA MDA MDA/ecstasy Methadone Oxycodone PMMA Buprenorphine Buprenorphine Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say

Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue was in the sample (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
Was the drug tested what you thought it might be?	 Yes No Not sure Rather not say
Were you told by staff how to reduce harms associated with the use of the drug(s) identified?	 Yes No Not sure Rather not say
Thinking about the drug that you got tested today, how likely is it that you will use it now that it has been tested?	0 = Definitely will not $ 1 $ $ 2 $ $ 3 $ $ 4 $ $ 5 $ $ 6 $ $ 7 $ $ 8 $ $ 9 $ $ 10 = Definitely will $ $ Unsure $ $ Rather not say$
If you were to use the drug that you got tested today,	Space out my use of this drug (i.e., have multiple
would you do any of the following? Read and mark all that apply	 doses) Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Will you tell anyone else about the results of testing for this drug?	 Yes No, don't know anyone using the drug No, other reason Not sure Rather not say
SAMPLE [record_id] B	
Did the test results show what was in the drug Sample [record_id] B?	 Yes No, I wasn't told No, sample wasn't eligible for testing No, sample wasn't submitted for testing Not sure Rather not say

What was in the drug Sample [record_id] B? Please list all drugs identified. You can select	 Amphetamine Benzodiazepine Cannabis
'other' to write in any other drugs identified that aren't in this list.	 Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDA MDA MDAA MDAA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue is in the sample (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
Was the drug tested in the sample what you thought it might be?	 Yes No Not sure Rather not say
Were you told by staff how to reduce harms associated with the use of the drug(s) in the sample?	 Yes No Not sure Rather not say

Thinking about the drug (Sample [record_id] B) that you got tested today, how likely is it that you will use it now that it has been tested?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure Rather not say
If you were to use the drug that you are getting tested today, would you do any of the following?	Space out my use of this drug (i.e., have multiple doses)
Read and mark all that apply	 Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Will you tell anyone else about the results of testing for this drug?	 Yes No, don't know anyone using the drug No, other reason Not sure Rather not say
SAMPLE [record_id] C	
Did the test results show what was in the drug Sample [record_id] C?	 Yes No, I wasn't told No, sample wasn't eligible for testing No, sample wasn't submitted for testing

- ◯ Not sure◯ Rather not say

What was in the drug Sample [record_id] C?	Amphetamine Benzodiazepine
Please list all drugs identified. You can select 'other' to write in any other drugs identified that aren't in this list.	Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDA MDA MDEA MDAA MDEA Momphine Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue is in the sample (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
Was the drug tested in Sample C what you thought it might be?	 Yes No Not sure Rather not say
Were you told by staff how to reduce harms associated with the use of the drug(s) in Sample C?	 Yes No Not sure Rather not say

Thinking about the drug (Sample [record_id] C) that you got tested today, how likely is it that you will use it now that it has been tested?	$ \begin{array}{c} 0 = \text{Definitely will not} \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 = \text{Definitely will} \\ \text{Unsure} \\ \text{Rather not say} \end{array} $
If you were to use the drug that you are getting tested today, would you do any of the following?	Space out my use of this drug (i.e., have multiple doses)
Read and mark all that apply	 Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Will you tell anyone else about the results of testing for this drug?	 Yes No, don't know anyone using the drug No, other reason Not sure Rather not say
SAMPLE [record_id] D	
Did the test results show what was in the drug Sample [record_id]D?	 ○ Yes ○ No, I wasn't told

- No, sample wasn't eligible for testing
 No, sample wasn't submitted for testing
 Not sure
 Rather not say

What was in the drug Sample [record_id] D?	Amphetamine Benzodiazepine
Please list all drugs identified. You can select 'other' to write in any other drugs identified that aren't in this list.	 Connabis Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDA MDEA MDMA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue is in the sample (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
Was the drug tested in Sample D what you thought it might be?	 Yes No Not sure Rather not say
Were you told by staff how to reduce harms associated with the use of the drug(s) in Sample D?	 Yes No Not sure Rather not say

Thinking about the drug (Sample [record_id] D) that you got tested today, how likely is it that you will use it now that it has been tested?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure Rather not say
If you were to use the drug that you are getting tested today, would you do any of the following?	Space out my use of this drug (i.e., have multiple doses)
Read and mark all that apply	 Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Will you tell anyone else about the results of testing for this drug?	 Yes No, don't know anyone using the drug No, other reason Not sure Rather not say
SAMPLE [record_id] E	
Did the test results show what was in the drug Sample [record_id] E?	 Yes No, I wasn't told No, sample wasn't eligible for testing No, sample wasn't submitted for testing

- Not sure
 Rather not say

What was in the drug Sample [record_id] E?	 Amphetamine Benzodiazepine
Please list all drugs identified. You can select 'other' to write in any other drugs identified that aren't in this list.	Cannabis Synthetic cannabinoids Cocaine Dexamphetamine Fentanyl Fentanyl analogue (e.g., carfentanyl) GHB/GBL/1,4-BD Heroin LSD Ketamine MDA MDEA MDEA MDMA/ecstasy Methadone Morphine Methamphetamine Oxycodone PMA PMMA Buprenorphine-naloxone Codeine Tapentadol Tramadol Steroid Other Not sure Rather not say
Please specify what other drug/s you think it is. Please try to be as specific as possible (e.g., 'codeine' rather than 'opioid'). If you think it contains more than one drug, you can list all these drugs here.	
Please specify what fentanyl analogue is in the sample (e.g., carfentanyl). You can write 'not sure' if you're unsure.	
Was the drug tested in Sample E what you thought it might be?	 Yes No Not sure Rather not say
Were you told by staff how to reduce harms associated with the use of the drug(s) in Sample E?	 Yes No Not sure Rather not say

Thinking about the drug (Sample [record_id] E) that you got tested today, how likely is it that you will use it now that it has been tested?	 0 = Definitely will not 1 2 3 4 5 6 7 8 9 10 = Definitely will Unsure Rather not say
If you were to use the drug that you are getting tested today, would you do any of the following? Read and mark all that apply	 Space out my use of this drug (i.e., have multiple doses) Have a test dose of this drug Use with alcohol at the same time as this drug Use with other drugs at the same time as this drug Make sure I have naloxone around Make sure someone else is with me when I use this drug and/or knows I'm using None of the above Not sure Rather not say
Will you tell anyone else about the results of testing for this drug?	 Yes No, don't know anyone using the drug No, other reason Not sure Rather not say

Part 2 Now we want to ask you some quick general questions about your experience accessing the service today. Remember, you can select 'not sure' if you are unsure, or 'rather not say' if you'd prefer not to respond.

How confident are you that the testing equipment here accurately identifies the substances in your sample/s?	\bigcirc 0 = Definitely untrustworthy \bigcirc 1 \bigcirc 2 \bigcirc 3
	 ↓ 4 ↓ 5 ↓ 6 ↓ 7
	 ○ 8 ○ 9 ○ 10 = Definitely accurate ○ Unsure ○ Rather not say

How would you rate the information you received today? 0 = Very poor 1 2 3 4 5 6 7 8 9 10 = Excellent Unsure Rather not say

One a scale of 0-10, please rate your agreement with the following statements:

The team at CANTEST communicated information clearly	 0 = Strongly disagree 1 2 3 4 5 6 7 8 9 10 = Strongly agree Unsure Rather not say
The team at CANTEST answered all my questions about the drug/s	 0 = Strongly disagree 1 2 3 4 5 6 7 8 9 10 = Strongly agree Unsure Rather not say
The team at CANTEST treated me with respect	 0 = Strongly disagree 1 2 3 4 5 6 7 8 9 10 = Strongly agree Unsure Rather not say

One a scale of 0-10, how would you rate the service overall?	 0 = Very poor 1 2 3 4 5 6 7 8 9 10 = Excellent Unsure Rather not say
Will you use the service again?	 Yes No Not sure Rather not say
Would you recommend this service to others?	 Yes No Not sure Rather not say
If you have any additional feedback or comments about the service, please enter in the box	
How could the service be changed or improved?	

Thank you for completing the Post-Test Survey! Please hand the tablet back to the staff member and we'll go through the additional health services that we offer.

HEALTH INTERVENTION AND NOTES

Visit ID: [record_id]	
Enter staff initials (Nurse)	
HEALTH INTERVENTIONS	
For staff: Client invited to health intervention or offered health referral?	 Yes, accepted Yes, did not accept Not invited (specify reason)
For staff: If not invited, specify reason	
For staff: Health intervention delivered or referral given? (MARK ALL THAT APPLY)	 General health screening General drug education Harm reduction education Overdose prevention education Safer injecting education Naloxone training and Nyxoid provision Harm minimisation / health information resources supplied Sexual health brief intervention General informal counselling Health promotion and education Administer First Aid Administer CPR Call ambulance Minor medical treatment STI screening Information referral Other intervention not listed
For staff: If other, specify what other intervention/referral	
For staff: How many units of naloxone were given?	
Any other comments on the occasion of service? Staff comments about the visit, or client feedback about the service. Script for staff: Thank you for your time. That brings us to th	e end of your service visit. Let me know if you have any
questions about the service, and have a great day.	

EXIT INFORMATION

Approximate age category	 15-17 18-24 25-34 35-44 45-54 55-64 65+ Don't know
Approximate gender	 Man or male Woman or female Non-binary They used a different term Don't know
For staff: This participant did not get screened to submit their drug for checking. Can you tell us a bit more about why they came into the service?	 Because the service was closing and there wasn't time to test their drug Because there were not enough staff to test their drugs Because the wait time was too long and there wasn't enough time to test their drugs For information about how the service works For crisis support For information and education For broader harm reduction For intervention (e.g., overdose) For other reason (specify) Unsure
For staff: Specify other reason	

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Exit date and time

END OF DATA COLLECTION

ANU GC MS TESTING

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Follow-Up Survey

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Thank you for agreeing to complete this survey. Your input is valuable! It will help us to assess how the drug checking service is working and if any changes need to be made.

This survey will take about 5-10 minutes

You will be emailed or texted a \$20 electronic GiftPay gift card which can be used in lots of stores (e.g., Woolworths, Coles, Myer) to reimburse you for your time today.

This survey is led by the Australian National University. Researchers include Anna Olsen, Amy Peacock, Raimondo Bruno, David McDonald, Mohamed Hammoud and Greta Baillie.

Your name will not being used and any information you provide will be kept private.

Your unique identifier will link this survey to previous surveys you completed in the drug checking service. Your name is not included and any answers you give are used to assess the service. Your answers will not impact your access to the service in any way.

Your answers to the survey will be used in a public report, media releases as well as in academic publications but only in aggregate form. The data, but not your contact details, will also be archived at the Australian National University.

You are not required to complete this survey and you may skip questions or stop at any time.

Your data will only be available to the research team, except as required by law. The aim of the study is to find out about your experience of attending CANTEST and we do ask you about illicit drug use. You do not have to answer the questions if you don't want to.

Privacy statement: In collecting your personal information within this research, the ANU must comply with the Privacy Act 1988. The ANU Privacy Policy is available at https://policies.anu.edu.au/ppl/document/ANUP_010007 and it contains information about how a person can:

Access or seek correction to their personal information; Complain about a breach of an Australian Privacy Principle by ANU, and how ANU will handle the complaint. Data Storage: The data from this survey will be transferred to the Australian National University and will be archived for future work.

Contact Details for More Information:

Associate Professor Anna Olsen

Australian National University

Email: anna.olsen@anu.edu.au or HealthServiceFollowup.chm@anu.edu.au

Phone: (02) 6125 6836

Ethics Committee Clearance:

ACT Health HREC 2021.ETH.001960

Thanks for answering the below questions about your visit to the service on [date_visit]. We really value hearing about your experience!

Remember, you can skip any question you don't want to answer by selecting 'not sure' or 'rather not say'.

On the [date_visit], you tested [s2_samples] sample(s). You thought you had [s4_expected] / [s4_expected_other] and the FTIR testing showed you had [s6_firstmatch] / [s6_firstmatch_other]. We'd really appreciate it if you could answer the below questions about this drug.

On the [date_visit], you tested [s2_samples] samples. In Sample [record_id] A, you thought you had [s4_expected] / [s4_expected_other] and the FTIR machine showed you had [s6_firstmatch] / [s6_firstmatch_other]. We'd really appreciate it if you could answer the below questions about this drug.

Did you use the drug after you got it tested at the service on [date_visit]?	 Used the tested drug Disposed of the drug I got tested I still have the drugs and plan to use them in the future I still have the drugs and do not plan to use them in future I still have the drugs and don't know if I will use them in future Not sure Rather not say
If you used the drug that was tested, did you:	 Use more of this drug than I had planned Used less of this drug than I had planned Used the same amount of the drug that I had planned Not sure Rather not say
If you used the drug that was tested, did you do any of the following? Read and select all that apply.	 Spaced out my use of this drug (i.e., had multiple doses) Had a test dose of this drug Used with alcohol at the same time as this drug Used with other drugs at the same time as this drug Made sure I had naloxone around Made sure someone else was with me when I used this drug and/or knew I was using None of the above Not sure Rather not say
If you didn't use the drug that was tested, did you do any of the following? Read and select all that apply.	 Discarded it at the service Discarded it elsewhere Gave it back to the supplier Gave it to someone else (other than supplier) Other (specify) None of the above Not sure Rather not say
Did you obtain (or try to obtain) more of the drug that was tested?	 ○ No ○ Yes ○ Not sure ○ Rather not say
Did you tell anyone else about the results of testing for this drug?	 Yes No, didn't know anyone using the drug No, other reason Not sure Rather not say

On a scale of 0-10, how much did you know about the positive / desired effects of the identified drug BEFORE you accessed the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say
On a scale of 0-10, how much do you know about the positive / desired effects of the identified drug AFTER accessing the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say
In Sample [record_id] B, you thought you had [s4_expected_2] / you had [s6_firstmatch_v2] / [s6_firstmatch_other_v2]. We'd requestions about this drug.	
Did you use the drug after you got it tested at the service on [date_visit]?	 Used the tested drug Disposed of the drug I got tested I still have the drugs and plan to use them in the future I still have the drugs and do not plan to use them in future I still have the drugs and don't know if I will use them in future Not sure Rather not say
If you used the drug that was tested, did you:	 Use more of this drug than I had planned Used less of this drug than I had planned Used the same amount of the drug that I had planned Not sure Rather not say

If you used the drug that was tested, did you do any of the following? Read and select all that apply.	 Spaced out my use of this drug (i.e., had multiple doses) Had a test dose of this drug Used with alcohol at the same time as this drug Used with other drugs at the same time as this drug Made sure I had naloxone around Made sure someone else was with me when I used this drug and/or knew I was using None of the above Not sure Rather not say
If you didn't use the drug that was tested, did you do any of the following? Read and select all that apply.	 Discarded it at the service Discarded it elsewhere Gave it back to the supplier Gave it to someone else (other than supplier) Other (specify) None of the above Not sure Rather not say
Did you obtain (or try to obtain) more of the drug that was tested?	 No Yes Not sure Rather not say
Did you tell anyone else about the results of testing for this drug?	 Yes No, didn't know anyone using the drug No, other reason Not sure Rather not say
On a scale of 0-10, how much did you know about the positive / desired effects of the identified drug BEFORE you accessed the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say

 \bigcirc 0 = Nothing On a scale of 0-10, how much do you know about the positive / desired effects of the identified drug AFTER accessing the testing service? **9** \bigcirc 10 = Expert O Testing didn't identify drug ⊖ Unsure Rather not say In Sample [record_id] C, you thought you had [s4_expected_3] / [s4_expected_other_3] and the FTIR machine showed you had [s6_firstmatch_v3] / [s6_firstmatch_other_v3]. We'd really appreciate it if you could answer the below questions about this drug. Did you use the drug after you got it tested at the ○ Used the tested drug service on [date visit]? O Disposed of the drug I got tested ○ I still have the drugs and plan to use them in the future I still have the drugs and do not plan to use them in future ○ I still have the drugs and don't know if I will use them in future ○ Not sure Rather not say If you used the drug that was tested, did you: ○ Use more of this drug than I had planned ○ Used less of this drug than I had planned O Used the same amount of the drug that I had planned O Not sure Rather not say
 A If you used the drug that was tested, did you do any Spaced out my use of this drug (i.e., had multiple of the following? doses) Had a test dose of this drug Read and select all that apply. Used with alcohol at the same time as this drug Used with other drugs at the same time as this drug Made sure I had naloxone around ☐ Made sure someone else was with me when I used this drug and/or knew I was using □ None of the above Not sure Rather not say If you didn't use the drug that was tested, did you do Discarded it at the service any of the following? Discarded it elsewhere Gave it back to the supplier Read and select all that apply. Gave it to someone else (other than supplier) Other (specify) □ None of the above Not sure Rather not say ⊖ No Did you obtain (or try to obtain) more of the drug ⊖ Yes that was tested? ○ Not sure Rather not say

Did you tell anyone else about the results of testing for this drug?	 Yes No, didn't know anyone using the drug No, other reason Not sure Rather not say 			
On a scale of 0-10, how much did you know about the positive / desired effects of the identified drug BEFORE you accessed the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say 			
On a scale of 0-10, how much do you know about the positive / desired effects of the identified drug AFTER accessing the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say 			
In Sample [record_id] D, you thought you had [s4_expected_4] / [s4_expected_other_4] and the FTIR machine showed you had [s6_firstmatch_v4] / [s6_firstmatch_other_v4]. We'd really appreciate it if you could answer the below questions about this drug.				
Did you use the drug after you got it tested at the service on [date_visit]?	 Used the tested drug Disposed of the drug I got tested I still have the drugs and plan to use them in the future I still have the drugs and do not plan to use them in future I still have the drugs and don't know if I will use them in future Not sure Rather not say 			
If you used the drug that was tested, did you:	 Use more of this drug than I had planned Used less of this drug than I had planned Used the same amount of the drug that I had planned Not sure Rather not say 			

If you used the drug that was tested, did you do any of the following? Read and select all that apply.	 Spaced out my use of this drug (i.e., had multiple doses) Had a test dose of this drug Used with alcohol at the same time as this drug Used with other drugs at the same time as this drug Made sure I had naloxone around Made sure someone else was with me when I used this drug and/or knew I was using None of the above Not sure Rather not say 		
If you didn't use the drug that was tested, did you do any of the following? Read and select all that apply.	 Discarded it at the service Discarded it elsewhere Gave it back to the supplier Gave it to someone else (other than supplier) Other (specify) None of the above Not sure Rather not say 		
Did you obtain (or try to obtain) more of the drug that was tested?	 No Yes Not sure Rather not say 		
Did you tell anyone else about the results of testing for this drug?	 Yes No, didn't know anyone using the drug No, other reason Not sure Rather not say 		
On a scale of 0-10, how much did you know about the positive / desired effects of the identified drug BEFORE you accessed the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say 		

 \bigcirc 0 = Nothing On a scale of 0-10, how much do you know about the positive / desired effects of the identified drug AFTER accessing the testing service? **9** \bigcirc 10 = Expert O Testing didn't identify drug ⊖ Unsure Rather not say
 A In Sample [record_id] E, you thought you had [s4_expected_5] / [s4_expected_other_5] and the FTIR machine showed you had [s6_firstmatch_v5] / [s6_firstmatch_other_v5]. We'd really appreciate it if you could answer the below questions about this drug. Did you use the drug after you got it tested at the ○ Used the tested drug service on [date visit]? O Disposed of the drug I got tested ○ I still have the drugs and plan to use them in the future I still have the drugs and do not plan to use them in future ○ I still have the drugs and don't know if I will use them in future ○ Not sure Rather not say If you used the drug that was tested, did you: ○ Use more of this drug than I had planned ○ Used less of this drug than I had planned O Used the same amount of the drug that I had planned O Not sure Rather not say
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 If you used the drug that was tested, did you do any Spaced out my use of this drug (i.e., had multiple of the following? doses) Had a test dose of this drug Read and select all that apply. Used with alcohol at the same time as this drug Used with other drugs at the same time as this drug Made sure I had naloxone around ☐ Made sure someone else was with me when I used this drug and/or knew I was using □ None of the above Not sure Rather not say If you didn't use the drug that was tested, did you do Discarded it at the service any of the following? Discarded it elsewhere Gave it back to the supplier Read and select all that apply. Gave it to someone else (other than supplier) Other (specify) □ None of the above Not sure Rather not say ⊖ No Did you obtain (or try to obtain) more of the drug ⊖ Yes that was tested? ○ Not sure Rather not say

Did you tell anyone else about the results of testing for this drug?	 Yes No, didn't know anyone using the drug No, other reason Not sure Rather not say 		
On a scale of 0-10, how much did you know about the positive / desired effects of the identified drug BEFORE you accessed the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say 		
On a scale of 0-10, how much do you know about the positive / desired effects of the identified drug AFTER accessing the testing service?	 0 = Nothing 1 2 3 4 5 6 7 8 9 10 = Expert Testing didn't identify drug Unsure Rather not say 		
Now we want to ask you some general questions about your prin your recent experiences with the service and more broadly.	nary sources of information on drugs, and also about		
Since attending the drug checking service have any of the following things changed for you? Please read and select all that apply.	 I am more cautious about using drugs I am more cautious about mixing drugs I take less drugs I space out my drug use more I have gone to the checking service again I have talked to a professional about my drug use I have gone to a new drug related health service I have accessed naloxone None of the above Not sure 		

Not sure
Rather not say

No
Yes
Not sure
Rather not say

What did you find most helpful or like most about the	
service?	

Will you use the drug checking service again?

How could the service be changed or improved?	
How could the service be changed or improved? In the past 12 months, have you seen or heard about an alert issued by health agencies about specific drugs in Canberra which likely carry a high risk for overdose or other harms? Please read and select all that apply.	 Haven't seen a drug alert Yes, about high dose heroin or heroin containing other drugs Yes, about high dose methamphetamine or methamphetamine containing other drugs Yes, about high dose cocaine or cocaine containing other drugs Yes, about high dose ecstasy/MDMA or ecstasy/MDMA containing other drugs Yes, about high dose LSD or LSD containing other
	 I observe high door 200 of 200 of 100 containing other drugs Yes, about high dose ketamine or ketamine containing other drugs Yes, about 'fake' benzodiazepines or benzodiazepines containing other drugs Yes, about other drugs not listed above Don't live in Canberra so haven't heard about any alerts Not sure Rather not say

Using the drop-down lists below, please rank your current top three sources for information or advice about the effects of drugs.

Please select your highest rated source for information/advice about drugs:

○ Peers/other people who use drugs

- O Friends/family
- Ó Dealer
- O Healthcare provider / alcohol and drug service
- CanTEST drug checking service
- Peer service (e.g., DanceWize, CAHMA)
- The internet (e.g., discussion forums, websites)
- None
- Other
- Rather not say

If other, please specify

Please select your second-highest rated source for information/advice about drugs:

○ Peers/other people who use drugs

- O Friends/family
- Dealer
- O Healthcare provider / alcohol and drug service
- \bigcirc CanTEST drug checking service
- Peer service (e.g., DanceWize, CAHMA)
- The internet (e.g., discussion forums, websites)
- None
- Other
- Rather not say

If other, please specify

	Please select your third-highest rated source for information/advice about drugs:					
0000000000	Peers/other people who use drugs Friends/family Dealer Healthcare provider / alcohol and drug service CanTEST drug checking service Peer service (e.g., DanceWize, CAHMA) The internet (e.g., discussion forums, websites) None Other Rather not say					
	If other, please specify					
	If you have any additional feedback or comments about the service or about this survey, please enter them here:					
	Thank you for taking part in this survey! Your responses are critical to help inform the running of	0	Yes No the service in future.			
	Would you like to receive your \$20.00 GiftPay gift voucher?					
	We'll email or text your \$20 GiftPay voucher within 3-5 business days.					
	Please email us at HealthServiceFollowup.chm@anu.edu.au if you haven't heard from us in that time or if you have any queries about the study. Please hit submit - you're all finished! Thanks for taking part in this study :)					

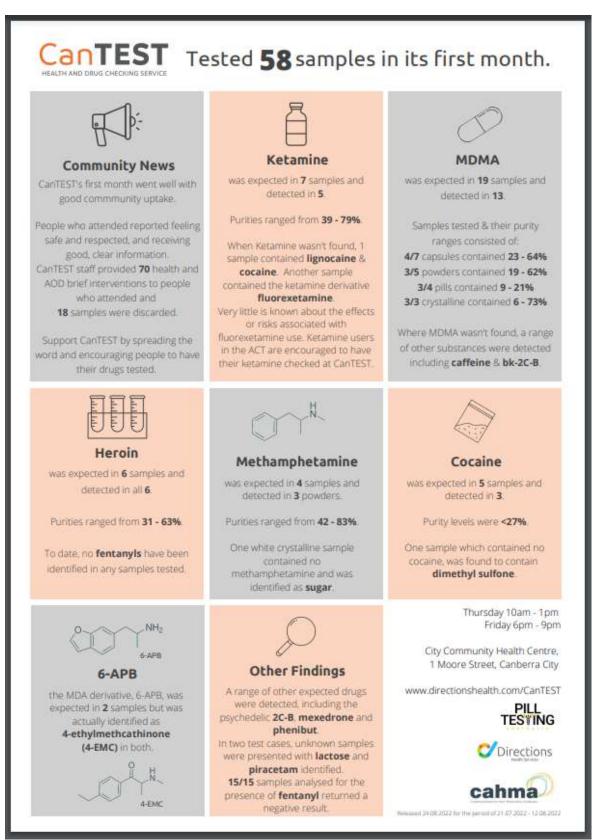
Please hit submit - you're all finished! Thanks for taking part in this study :)

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CANTEST MONTHLY REPORTS

Figure 24. CanTEST Results Snapshot | Month 1



Source: <u>https://directionshealth.com/wp-content/uploads/2022/10/CanTEST_Service-Summary_21072022-to-12082022_PDF.pdf</u>

Figure 25. CanTEST Results Snapshot | Month 2



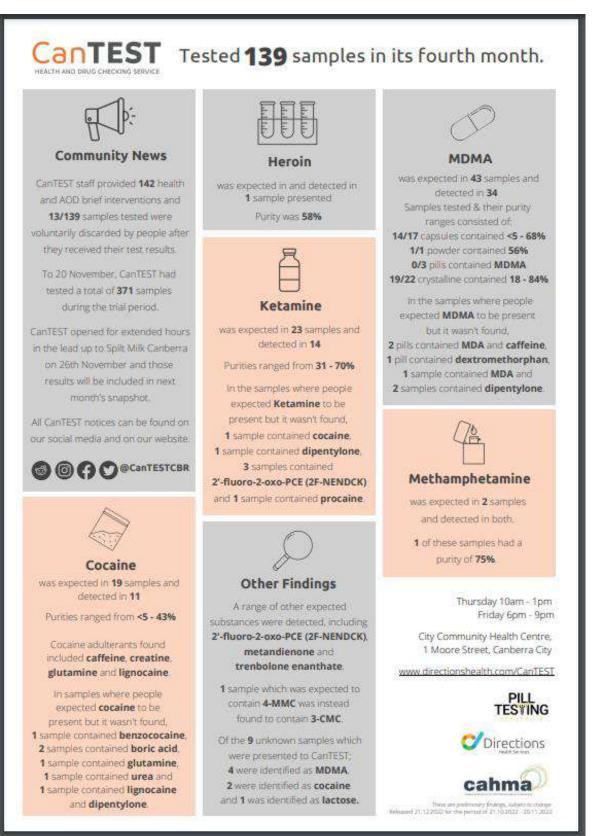
Source: <u>https://directionshealth.com/wp-content/uploads/2022/10/CanTEST-Service-Summary 13082022-to-</u> 20092022_PDF.pdf

Figure 26. CanTEST Results Snapshot | Month 3



Source: <u>https://directionshealth.com/wp-content/uploads/2022/11/CanTEST-Service-Summary_21092022-to-</u> 20102022-PDF.pdf

Figure 27. CanTEST Results Snapshot | Month 4



Source: <u>https://directionshealth.com/wp-content/uploads/2022/12/CanTEST-Service-Summary_21102022-to-20112022.pdf</u>

Figure 28. CanTEST Results Snapshot | Month 5



Source: <u>https://directionshealth.com/wp-content/uploads/2023/01/CanTEST-Service-Summary_Month-5_21112022-</u> to-20122022-PDF-1.pdf

Figure 29. CanTEST Results Snapshot | Month 6



Source: <u>https://directionshealth.com/wp-content/uploads/2023/02/CanTEST-Summary Month-6 21122022-to-</u>20012023-PDF.pdf