

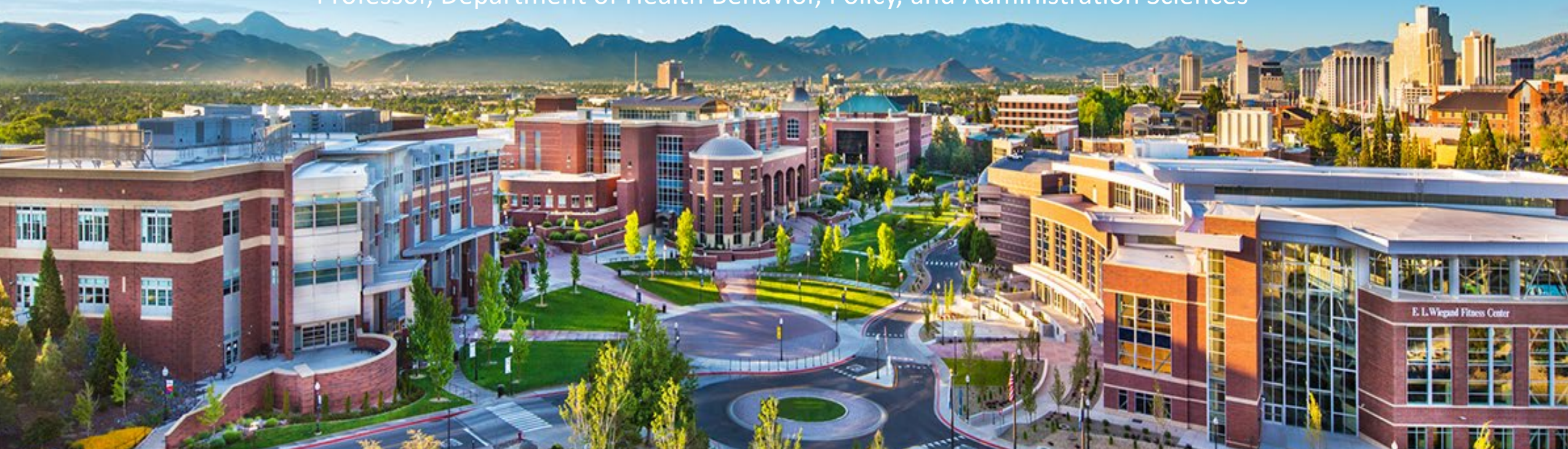


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Drug Testing Performed by Public Health Programs

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Principles and Practice of Public Health Drug Checking

Drug Checking Tech

Test strips

Reagents

Fourier transform
infrared (FTIR)
Spectrometer

Liquid/Gas
chromatography-
mass spectrometer

anywhere

table top

program sites

lab



cost, time, complexity, information

How does it work?

	Where?	Who?	How?	Time?	Cost?	Information?
Test strips	Anywhere	Anyone	Dissolve residue in liquid and dip	~5 minutes	\$	i
FTIR	Clinic, harm reduction program	Trained staff	Submit small sample (1/2 grain of rice) and test	~20 minutes	\$\$	iii
GCMS/LCMS	Laboratory	Chemist	Submit small sample or residue from bags, syringes, etc., dissolve in solution, bring or mail to lab	2-4 weeks	\$\$\$	iii

Video of drug checking service at OnPoint in New York: <https://youtu.be/bncv673bthk?feature=shared>

What are the benefits of public health drug checking?

FTIR and LC/GCMS are necessary tools to **expand our knowledge** beyond what test strips tell us.

Studies have shown that drug checking encourages **safer drug use practices**.^{1,2}

People can adjust drug use behaviors, make informed decisions about their health, and implement other harm reduction practices.

1. Peiper N, et al. Fentanyl test strips as an opioid overdose prevention strategy: findings from a syringe services program in the Southeastern United States. *Int J Drug Policy*. 2019;63:122-128.

2. Measham F. City checking: Piloting the UK's first community-based drug safety testing (drug checking) service in 2 city centres. *Br J Clin Pharmacol*. 2020;86(3):420-428.

Public Health Drug Checking

At the individual level, drug checking is a **service**.

At the community level, drug checking helps to
monitor the drug supply.

The approach is **centered in public health and harm reduction.**

Dasgupta, Nabarun, and Mary C. Figgatt. "Invited commentary: drug checking for novel insights into the unregulated drug supply." *American Journal of Epidemiology* 191.2 (2022): 248-252.

Public Health drug checking in practice

- Leading through lived experience of drug use and science
- Aligning the science with community needs
- Incorporating new technologies and repurposing existing ones

Sometimes we find unusual things...
which can be explained by *subjective experiences*.

Participant's Subjective Experience

1. Unexpected **hallucinogenic experience** from heroin.
2. Small amount of heroin caused unusual reaction with **deep sedation**.

Drug Checking Results

Fentanyl, heroin, **tenocyclidine (PCP analogue)**, and other cuts

Fentanyl, heroin, **xylazine**, and sugars

Therefore, participation and information from the people using the services is essential

Public health drug checking in practice

- Emphasizing and promoting individual autonomy and anonymity
- Building connections
- Sharing information about drug checking technology and drug supply additives/cuts

What does the research say?

- Services must be tailored to local conditions through community and consumer input
- Use of multiple strategies is recommended
- People are motivated to use drug checking when they are concerned about drug contents and negative health outcomes
- Drug checking services can positively influence behavior change, minimize harm, reduce morbidity and mortality
- Barriers to use include lack of concern over drug contents, accessibility issues, limited results, and fear of legal consequences

Maghsoudi, N, et al. "Drug checking services for people who use drugs: a systematic review." *Addiction* 117.3 (2022): 532-544.

Giulini, F, et al. "A systematized review of drug-checking and related considerations for implementation as a harm reduction intervention." *Journal of Psychoactive Drugs* 55.1 (2023): 85-93.

For more information

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- Erowid's data dashboard:
 - <https://drugsdata.org/>
- University of North Carolina Drug Checking Service:
 - <https://www.streetsafe.supply/>
- Massachusetts Drug Supply Data Stream:
 - <https://www.info.streetcheck.org/general-8>