Assessing the State of Drug Checking: Insights from Local Health Departments in the United States

Introduction

The University of North Carolina, Chapel Hill, in collaboration with Remedy Alliance and the National Association of City and County Health Officials (NACCHO) developed and distributed a survey to assess the current state of drug checking at city and county health programs across the United States. The purpose of the survey was to investigate prevalence of and interest in point-of-care drug checking, the types of technologies and methodologies being used, and the state of readiness, including expected and actual barriers to implementation. The survey focused on drug checking with advanced technologies, which includes point-of-care technologies such as Fourier Transform Infrared Spectrometers (FTIRs) as well as technologies that typically reside in off-site laboratories such as GC/MS, LC/MS, qNMR, etc.

Who Responded?

Distribution of the survey occurred primarily through NACCHO's pre-existing networks. NACCHO is an organization that works with a wide variety of direct service health programs and health departments across the United States. For this survey there were two types of respondents; those already doing drug checking (n=76), and those interested in doing drug checking (n=66). Syringe Service Programs (SSPs) were the most common setting for programs already doing drug checking, and most programs also offered other harm reduction services with 89% of operating drug checking programs offering linkage to substance use treatment. Drug checking is also a recent emergence; half of the programs that responded came online in the past year.

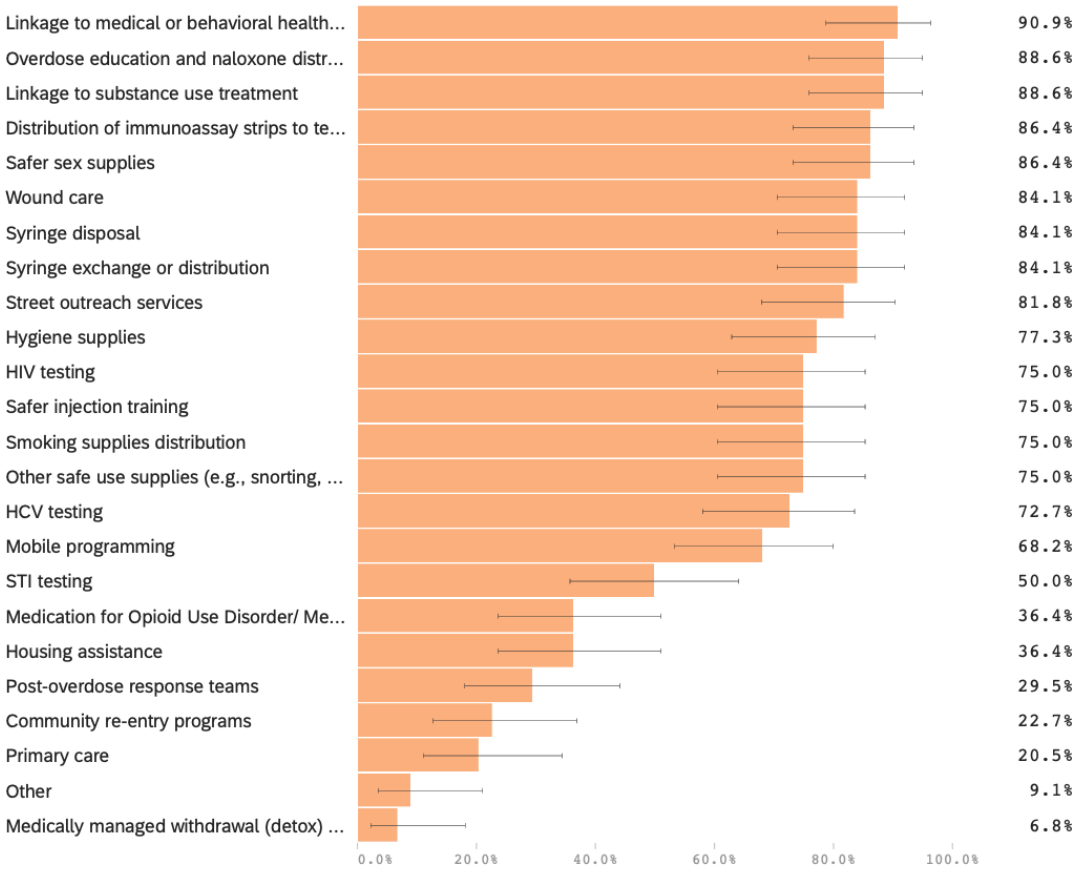

Figure 1: Other services offered by programs currently providing drug checking services

Technologies

Programs were asked what types of technologies or modalities they wanted to incorporate into their drug checking program and were allowed to select multiple technologies. There was a noted disconnect between interest and current practice. Programs were most interested in using a combination of FTIR spectrometers, immunoassay strips, and lab testing, but lab-based testing on its own was the most implemented.

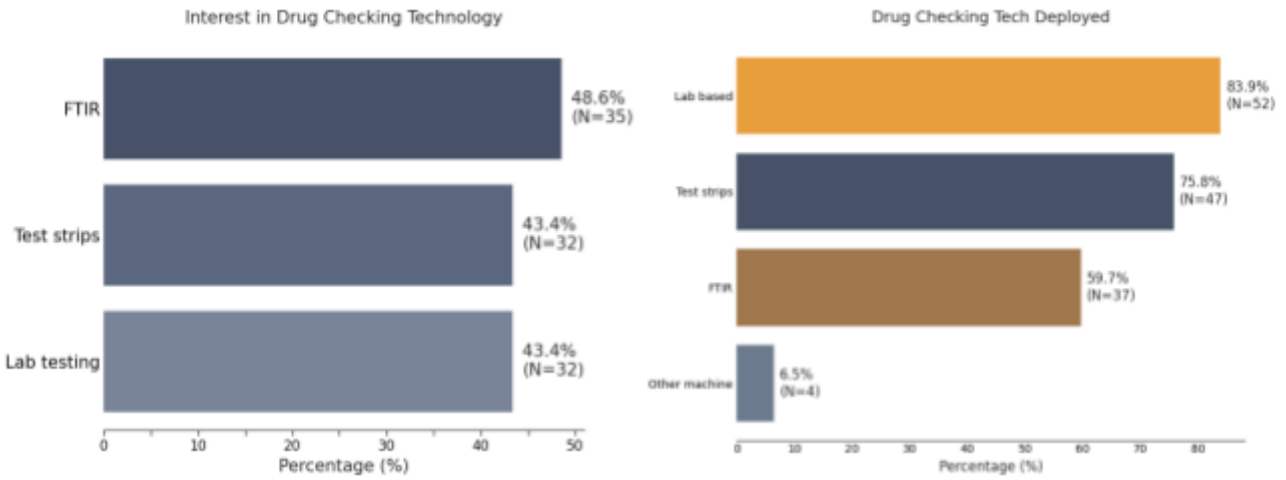

Figure 2: Technologies programs are interested in utilizing for a drug checking program (left) compared to the drug checking technologies that are currently being used (right).

Of the programs that indicated interest in drug checking but have not yet stood up services, 32 programs (42.1%) were unsure of what technology they wanted to use, and 11 programs (14%) indicated that they wanted to use a different technology other than FTIR. Given that FTIR spectroscopy is currently the most used technology for field-based drug checking in the US, this perhaps indicates a need for further education around what features and capabilities a drug checking instrument should have. Many devices currently being marketed for drug checking are either not suitable for that purpose or have not yet been validated or evaluated. Of the programs that indicated interest, but were not yet providing advanced technology drug checking, only 5 programs (7%, n=70) already had an instrument in their possession.

Barriers

Programs highlighted several barriers to drug checking implementation. Access to funding was a significant barrier for both programs currently doing drug checking, and for programs interested in doing drug checking. 84.6% of programs interested in drug checking reported that a lack of funding was a current barrier to drug checking implementation and only 6 programs interested in drug checking (10%) reported that they had any funding for their proposed drug checking program.

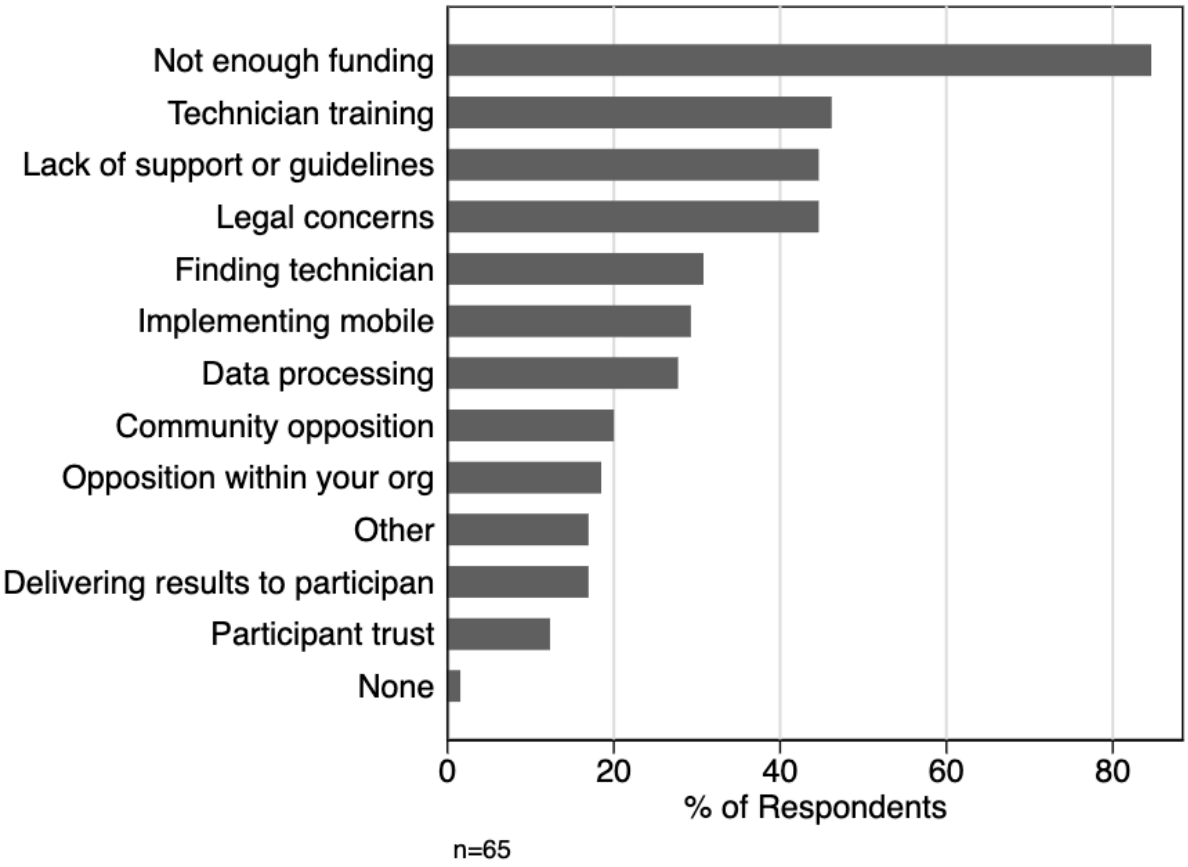

Figure 3: Barriers to implementation experienced by programs interested in doing drug checking (n=65). The most common barrier to implementation was not having enough funding.

About a third of programs interested in doing drug checking reported facing three barriers, and the maximum number of barriers a program reported facing was 9. Besides funding, technician training, legal concerns, and lack of support or guidelines (46%, n=30; 44.6%, n=29; 44.6%, n=29) were the next most experienced barriers. Drug checking is a complex intervention, and programs often face numerous barriers to implementation. Although funding is a major barrier, other support is needed beyond simply securing funding. Training is a significant need, as there is not enough expertise to meet the demand for training. Programs need to navigate legal barriers at organizational, city, and state levels, and there is often little to no support for this. Drug checking in an SSP setting with advanced technologies is also a relatively new intervention, and there are few concrete guidelines or blueprints to follow.

When asked to describe barriers, programs responded with a wide range of experiences:

> *"Grey legal areas are hard to navigate. No one knows what is legal and what's not"*

> *"The main barrier was just getting state leadership to understand that working in the community with people who use drugs is not dangerous."*

> *"None of us who are closer to the ground know what the barriers actually are. We have our guesses. Folks from higher up positions are not direct if asked a question about drug checking."*

Programs were also asked about barriers that they foresee experiencing in the future. Responses to current barriers and foreseen barriers were largely similar; lack of funding, access to training, and legal concerns were the three most expected barriers. A higher number of programs are expecting community opposition to be a barrier in the future, compared to the number of programs that report current community opposition being a challenge (n=13 vs. n=26).

Funding continues to present a barrier to programs currently doing drug checking, but other barriers emerge as programs continue to grow and mature. 37.8% (n=17) of programs currently offering drug checking services had federal funding via local or state government and 28.9% (n=13) had funding directly from state or local government. 20% (n=9) of programs funded their programs through partnerships with research universities. Private grants and opioid settlement dollars were the next largest categories of funding (15.6%, n=7; 13.3%, n=6), suggesting that opioid settlement dollars may be an underutilized funding source. **Nearly a quarter of currently existing programs (24.4%, n=11) did not have any specific funding for their drug checking program.**

> *"Please help with funding! That is our issue. We don't have nearly enough funding to meet demands."*

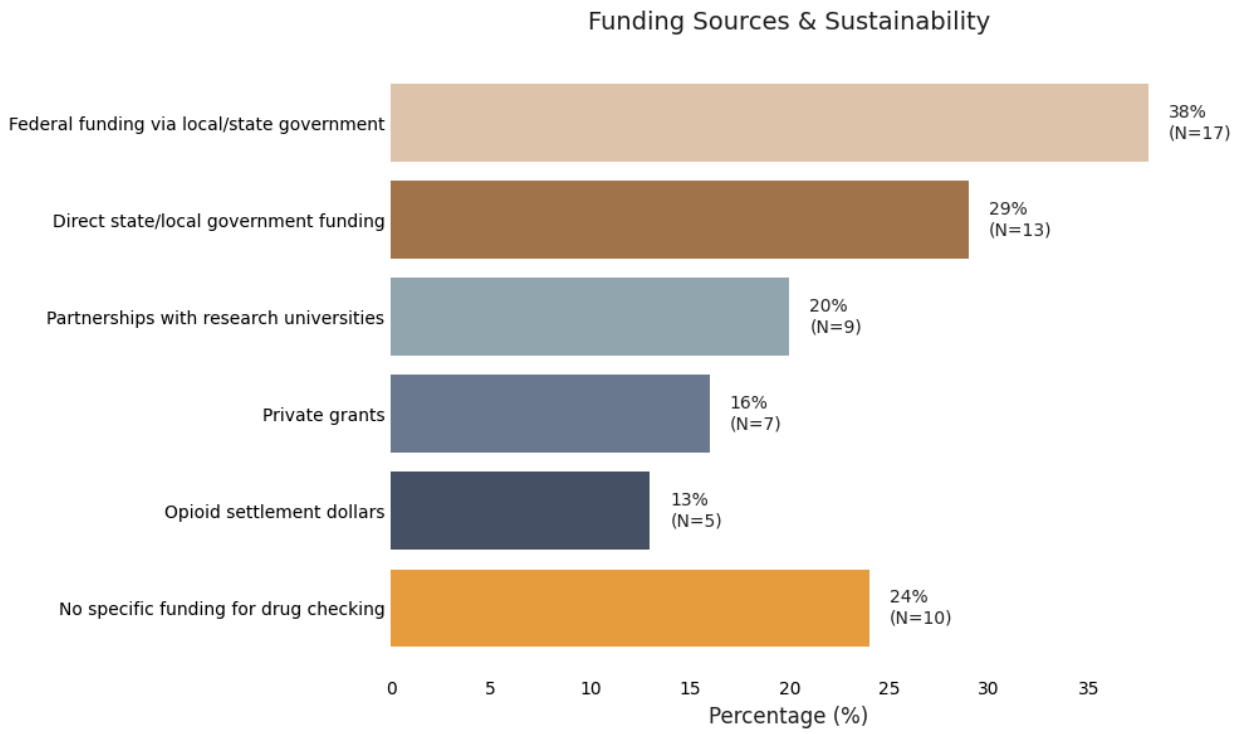

Figure 4: Funding sources for currently active drug checking programs.

Programs were also asked to characterize the status of ongoing drug checking funding. Less than half (42.2%) of currently operating programs said that they had sufficient funding to sustain drug checking. Similarly, 42.2% of programs reported that while they had ongoing funding, it was not sufficient to sustain their drug checking program. 15.6% of programs reported that they do not have any ongoing funding to support drug checking in the medium-to-long term.

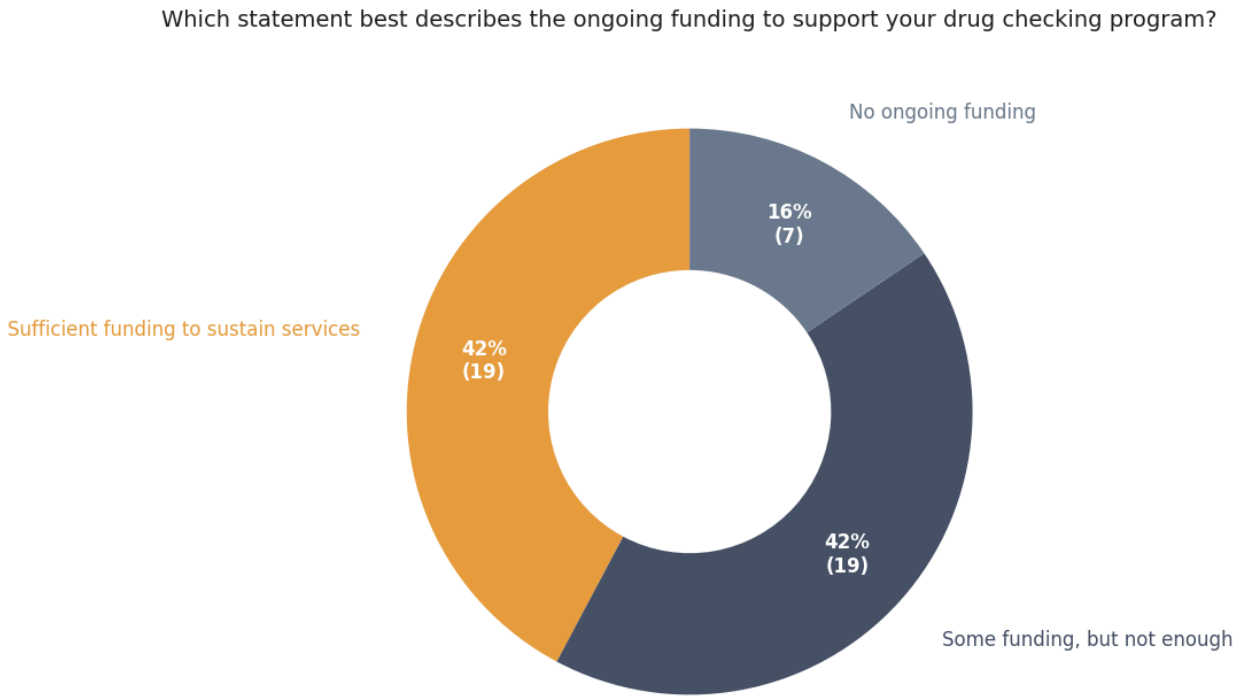

Figure 5: Funding sustainability as described by programs currently providing drug checking services.

Even with sufficient funding, capacity remains a large barrier.

> *"[A] big barrier we are still struggling with is lack of staff capacity, I still have many other responsibilities then that holds me back from being able to expand the program more. Even if we had additional funding and opportunity for a machine and training, we still need more staff."*

These experiences highlight the challenge of funding a drug checking program. Funding streams are often patchworked together to meet the demand, with many programs doing drug checking with insufficient funding, or no funding at all.

Resources and Engagement

Programs were asked about confidence in their ability to locate and access resources and information needed to implement drug checking. 33% of programs reported that they were very confident in their ability to secure the needed resources to implement drug checking. Furthermore, programs that had support tended to have extensive support, but many programs lacked any access at all to training

resources. In other words, it appears as though once programs tap into existing training resources, the support is substantial, but making initial connection to those resources remains a challenge.

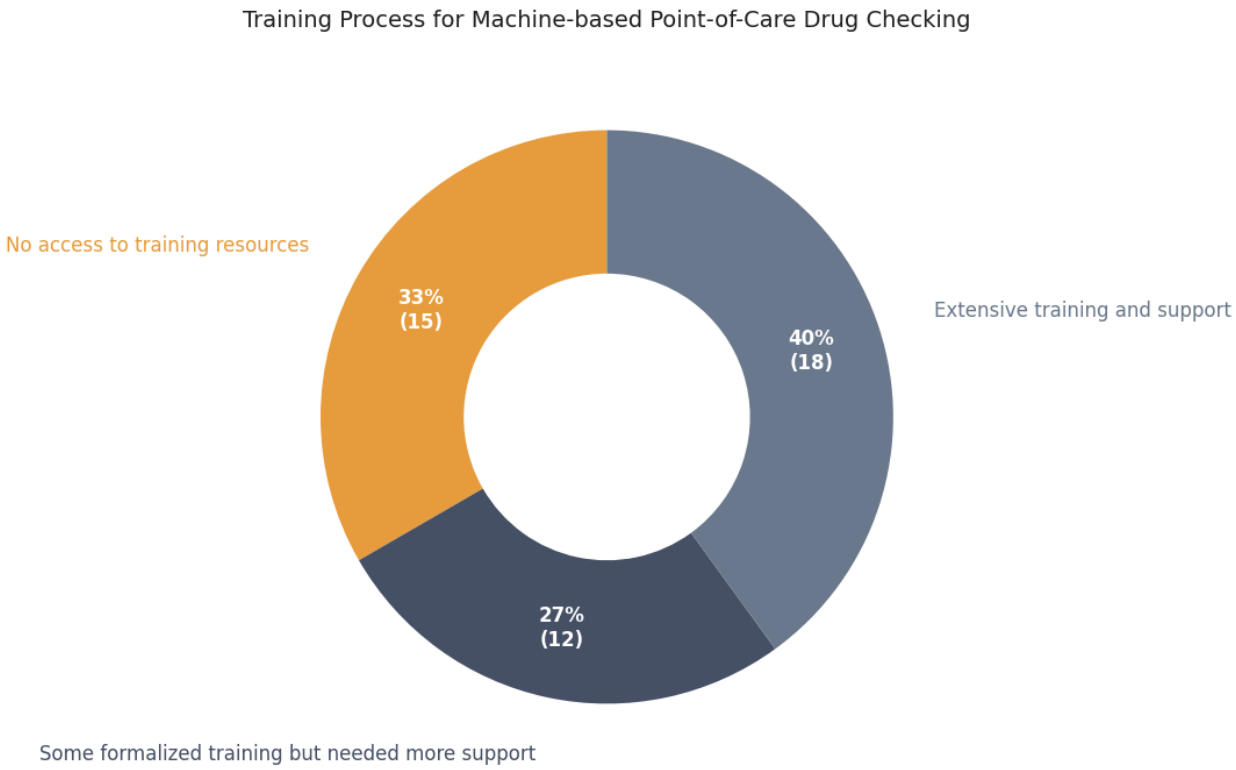

Figure 6: Perceived access to training and resources by programs who are currently providing drug checking services.

Networks and communities of practice are an example of resources that all drug checking programs should be accessing and leveraging on a regular basis. Programs interested in drug checking were asked about networks or communities of practice they were engaged with. **40% of interested programs reported that they were not involved with any drug checking networks.** Of the programs that were involved with communities of practice, DanceSafe and Remedy Alliance were the most common networks that programs were connected to (33.8%, n=22), followed by the University of North Carolina (23.1%, n=15), and the Alliance for Collaborative Drug Checking (21.5%, n=14). Of programs currently doing drug checking, only 2.2% of programs were not involved with any networks of practice. All programs that were connected to networks of practice, regardless of current drug checking status tended to feel well supported by those communities. This parallels findings related to training and resources; the support programs receive once they are connected to a community of practice is

substantial, but it remains challenging for programs outside of these networks, especially pre-implementation drug checking programs, to locate and tap into existing resources. The high number of programs that were not involved with any drug checking networks or community of practice highlights the need for better communication around the importance of drug checking networks.

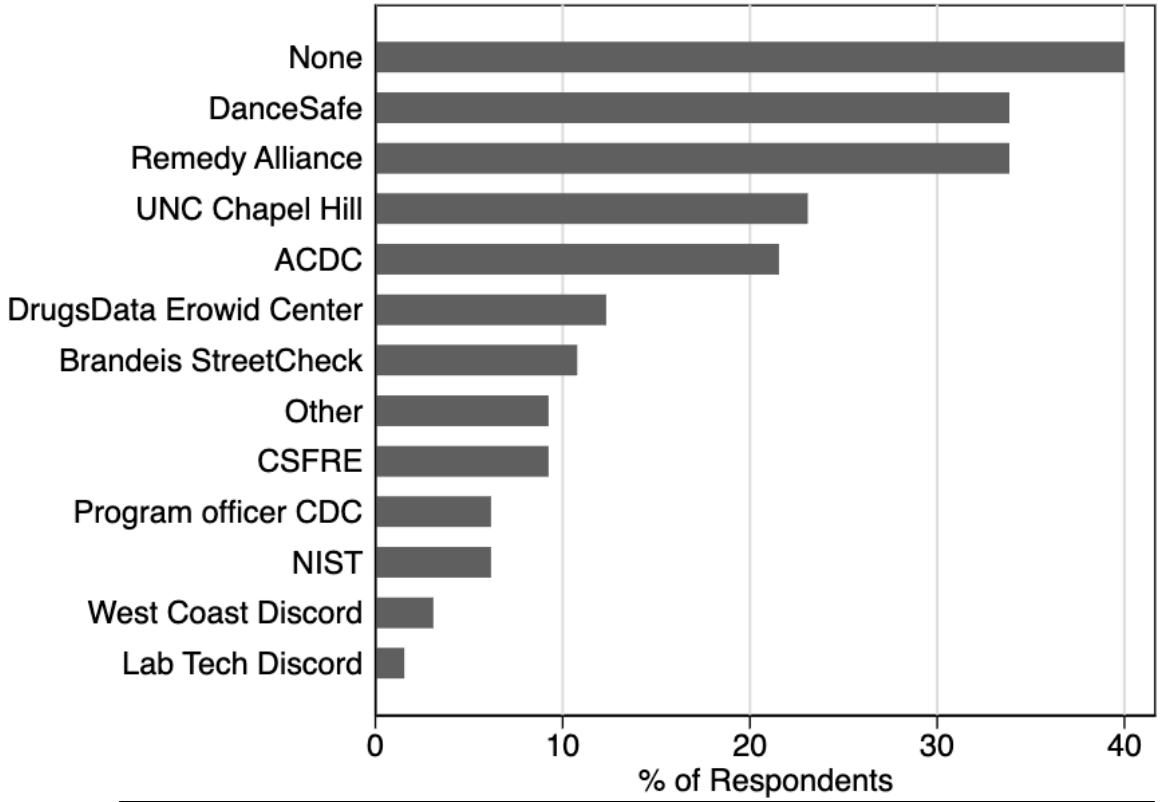

Figure 7: Networks of practice accessed by programs interested in but not currently providing drug checking services.

Beyond engaging in communities of practice, currently existing drug checking programs were evenly split in their interactions with law enforcement. Slightly over half of programs (54.7%, N=29) reported that they do not engage with law enforcement in any way. The ways in which the other half of respondents engaged with law enforcement varied. Many programs obtained either explicit or implied permission to operate from law enforcement. Others provided trend reports or presentations, sample-level data, or tested samples seized by law enforcement. There are many community-level factors that influence a program's relationship with law enforcement, and each program will make that decision internally. However, programs should be cautious in their engagements, as any perceived cooperation with law

enforcement can damage the trust and relationship of the drug checking program with the community. It is also best practice in the field to not share data with law enforcement in a way that could facilitate the criminalization, prosecution, or harassment of people who use drugs.

Results

Returning results back to the community and the individuals seeking drug checking services are crucial to drug checking. Programs in this analysis were found to use multiple redundant methods of returning samples to participants, with a large reliance on in-person delivery. About half of programs indicated that they provide results in-person, at the point that the drug checking service is provided and 75.6% of programs give results in-person, but at a later date. A smaller proportion of programs reported using various technologies such as QR codes or text messages to give results. This reflects the importance of direct service drug checking and front-line technicians who have strong relationships with the community. Many participants who access drug checking programs do not have access to smart phones or internet, or there is a perceived risk to delivering results through various platforms. A small number of programs also share aggregate data through either printed reports or posters, or through data dashboards.

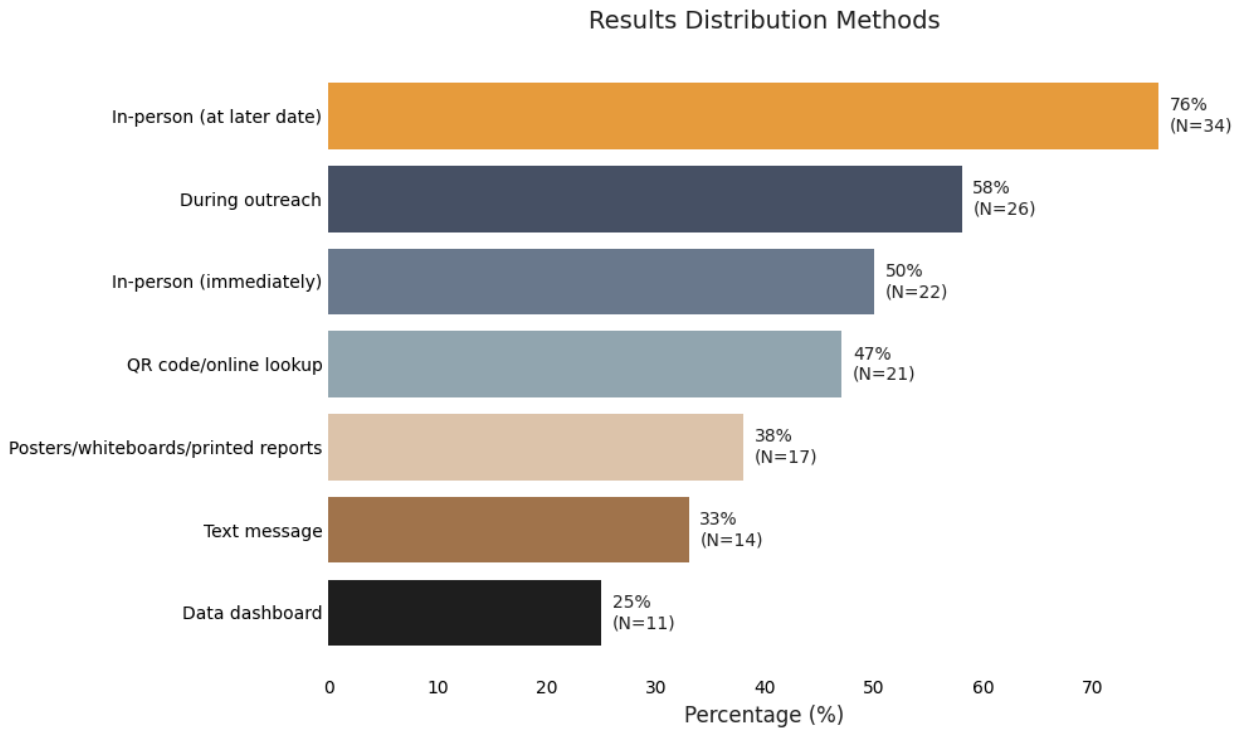

Figure 8: How drug checking results are distributed and disseminated by programs currently providing drug checking services.

Conclusions

This survey and landscape analysis gave greater insight into the current state of drug checking expansion in the United States. There are a wide variety of technologies being used by currently existing drug checking programs, including FTIR spectrometers, immunoassay strips, and mail-in lab testing, with a large interest in expanding FTIR spectrometer-based drug checking. FTIR spectrometer drug checking appears to be an almost ubiquitous technology for point-of-care drug checking beyond test strips. Funding remains a crucial barrier to programs, regardless of current drug checking status. Additionally, access to resources, training, and support present significant challenges to programs looking to implement drug checking, while program sustainability and capacity are hurdles to currently operating programs. Communities of practice represent a key drug checking support, and there remains a gap in connecting potential drug checking programs to these resources. Drug checking remains a highly person-centered intervention, with much of the data exchange occurring between the technician and the person accessing the service through word of mouth. This reiterates the importance of prioritizing service provision and relationship building over research or data collection, and the key role that the technician plays in the success of a drug checking program. This landscape analysis provides additional insight into the current state of drug checking at health departments in the United States and highlights best practices for programs moving towards implementation.