

DRUG ENFORCEMENT
ADMINISTRATION
DIVERSION CONTROL
DIVISION

BRIEF

Toxicology Testing Practices for Amphetamines, Cocaine, Marijuana/THC, and Phencyclidine Across the Nation

The National Forensic Laboratory Information System (NFLIS) is a Drug Enforcement Administration program that systematically collects results of forensic analyses, and other related information, from local, regional, and national entities. From June through October 2017, NFLIS administered surveys that collected calendar year 2016 data from 231 toxicology laboratories (TLs) and 971 medical examiner/coroner offices (MECs) across the United States. Results from the TL and MEC Office Surveys were previously published. This publication provides additional data not presented in the survey reports and displays findings from responding TLs about their toxicology testing frequency and quantification for amphetamines, cocaine, marijuana/THC, and phencyclidine overall and by laboratory ownership (private or public) and caseload size (small, medium, or large). Findings from responding MECs are reported by type of office (medical examiner or coroner office) and jurisdiction size.

Figures 1 and 2 summarize the toxicology analysis frequency and quantitative analysis frequency that TLs reported as "always" by laboratory ownership and caseload size of the responding laboratory, respectively. Reporting "always" for quantitative analysis testing was defined as always quantifying positive results for the particular drug or drug class. Higher percentages of small TLs reported always testing for amphetamines, cocaine, marijuana/THC, and phencyclidine than medium and large TLs (Figure 1).

Overall, more than 50% of all responding TLs reported always testing for these drugs; phencyclidine had the lowest percentage compared with amphetamines, cocaine, and marijuana/THC. Higher percentages of large and private TLs reported always quantifying amphetamines, cocaine, marijuana/THC, and phencyclidine than medium, small, or public TLs (Figure 2). Overall, marijuana/THC and phencyclidine were less likely to be quantified than amphetamines and cocaine.

Figure 1 Frequency of Toxicology Testing Reported as "Always" by Toxicology Laboratories

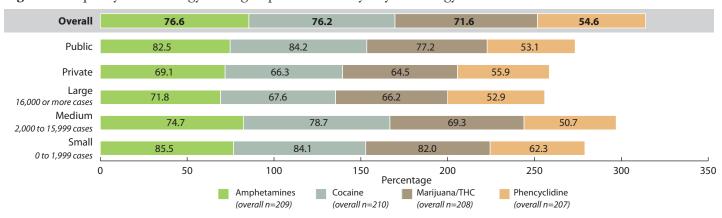


Figure 2 Quantitative Analysis Frequency Reported as "Always" by Toxicology Laboratories

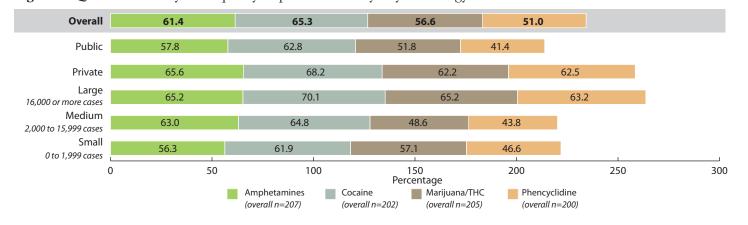


Figure 3 shows TL responses to using a reference laboratory for toxicology testing. Respondents were asked if their TL requested toxicology analysis from any reference laboratories for a drug or drug class. A smaller percentage of medium TLs reported using a reference laboratory for amphetamines and cocaine than small, large, private, and public TLs. Less than 50% of responding TLs reported using a reference laboratory except for public TLs for marijuana/THC and phencyclidine and private TLs for amphetamines and cocaine.

Figures 4 and 5 summarize the toxicology analysis frequency and quantitative analysis frequency reported as "always" by MECs. Data are also shown by jurisdiction size (small, medium, and large) if reported by the MEC. Overall, respondents reported a lower percentage of always testing for marijuana/THC and phencyclidine than for amphetamines and cocaine (Figure 4). All respondents reported a quantitative analysis frequency higher than 50% except small jurisdictions for marijuana/THC and phencyclidine (Figure 5).

Figure 3 Use of Reference Laboratories by Toxicology Laboratories

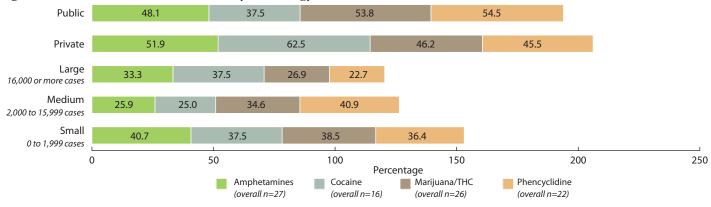


Figure 4 Toxicology Testing Frequency Reported as "Always" by Medical Examiner and Coroner Offices

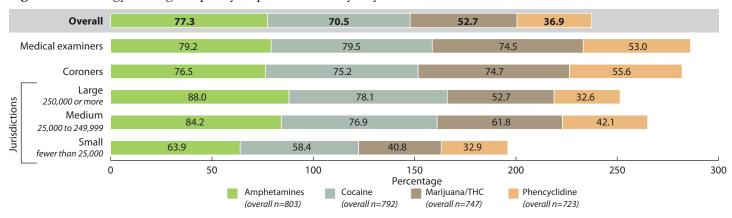
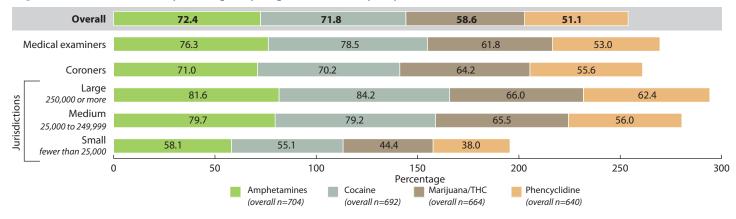


Figure 5 Quantitative Analysis Frequency Reported as "Always" by Medical Examiner and Coroner Offices



¹ U.S. Drug Enforcement Administration, Diversion Control Division. (2018). 2017 Toxicology Laboratory Survey Report. Springfield, VA: U.S. Drug Enforcement Administration.

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U.S. Drug Enforcement Administration, Diversion Control Division. (2020). NFLIS-MEC/Tox Brief: Toxicology Testing Practices for Amphetamines, Cocaine, Marijuana/THC, and Phencyclidine Across the Nation. Springfield, VA: U.S. Drug Enforcement Administration.

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DEA PRB 01-09-20-02 February 2020

²U.S. Drug Enforcement Administration, Diversion Control Division. (2018). 2017 Medical Examiner/Coroner Office Survey Report. Springfield, VA: U.S. Drug Enforcement Administration.