

Toxicology Testing Practices for Opiates and Opioids 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 toxicology laboratories (TLs) and medical examiner and coroner offices (MECs) across the United States. Results from the TL and MEC Office Surveys were previously published.^{1,2} This NFLIS Brief provides additional data not presented in the survey reports and displays findings from responding TLs about their toxicology testing frequency and quantification for a subset of opiates and opioids overall and by laboratory ownership (private or public) and caseload size (small, medium, and 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 quantitative analysis frequency reported as “always” or “never” by TL ownership and caseload size of the responding laboratory. Reporting “always” for quantitative analysis testing was defined as always quantifying positive results for the particular drug or drug class. “Never” was defined as never quantifying positive results for the particular drug or drug class. Regardless of TL ownership, a lower percentage of TLs reported always quantifying fentanyl-related substances. Overall, a higher percentage of TLs reported always testing for opiates or opioids

other than heroin and fentanyl rather than other types of drugs or drug classes in Figure 1. Higher percentages of large and private TLs (both greater than 60%) than small, medium, and public TLs (each less than 50%) reported always quantifying buprenorphine.

TLs reported opiates or opioids other than heroin or fentanyl as the least likely drug class to never be quantified (11%), whereas fentanyl-related substances were most likely to never be quantified (52%) (Figure 2). This pattern held regardless of ownership type

Figure 1 Quantitative Analysis Frequency Reported as “Always” by Toxicology Laboratories

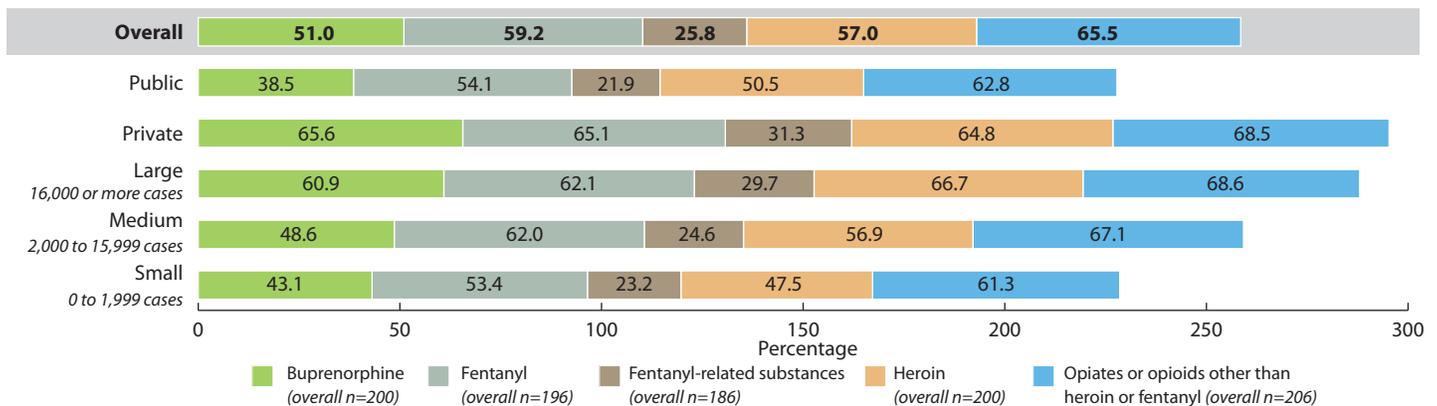
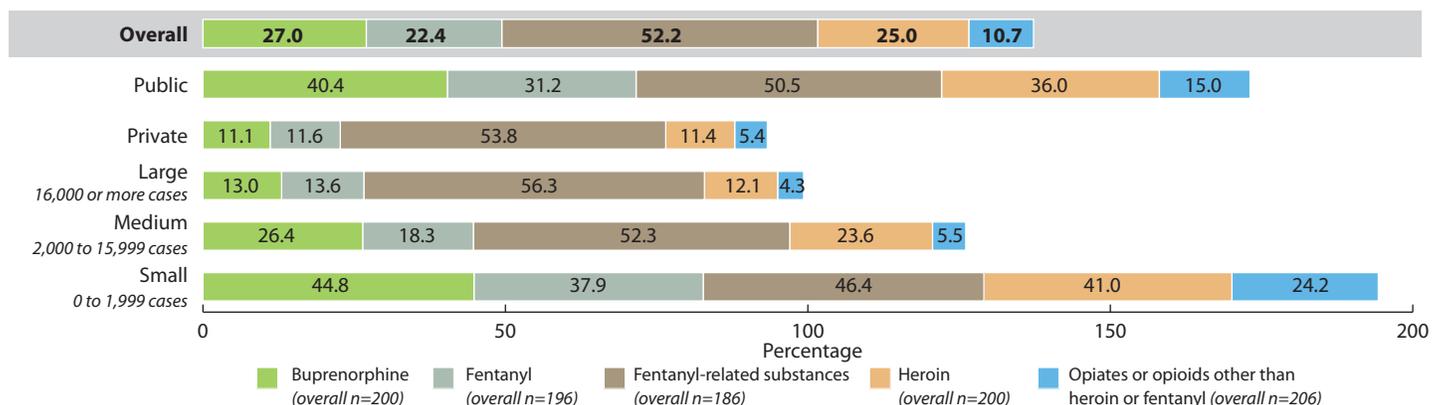


Figure 2 Quantitative Analysis Frequency Reported as “Never” by Toxicology Laboratories



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or caseload size of TLs. A higher percentage of small TLs reported never quantitatively testing for heroin, whereas large TLs and private TLs were the least likely to report never quantitatively testing for heroin rather than other drug classes. Higher percentages of small and public TLs (both greater than 30%) than medium, large, and private TLs (each less than 25%) reported never quantifying fentanyl.

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. Regardless of drug or drug class shown

in Figure 3, a smaller percentage of large laboratories reported using a reference laboratory (21%). Across all drugs and drug classes, a higher percentage of public laboratories reported using a reference laboratory.

Figures 4 and 5 summarize the quantitative analysis frequency reported by MECs as “always” or “never.” Data are also shown by jurisdiction size (small, medium, and large) if reported by the MEC. Regardless of drug or drug class, a lower percentage of small jurisdictions reported always quantifying positive results. Overall, less than 13% of MECs reported never quantifying each of these substance categories (Figure 5).

Figure 3 Use of Reference Laboratories by Toxicology Laboratories

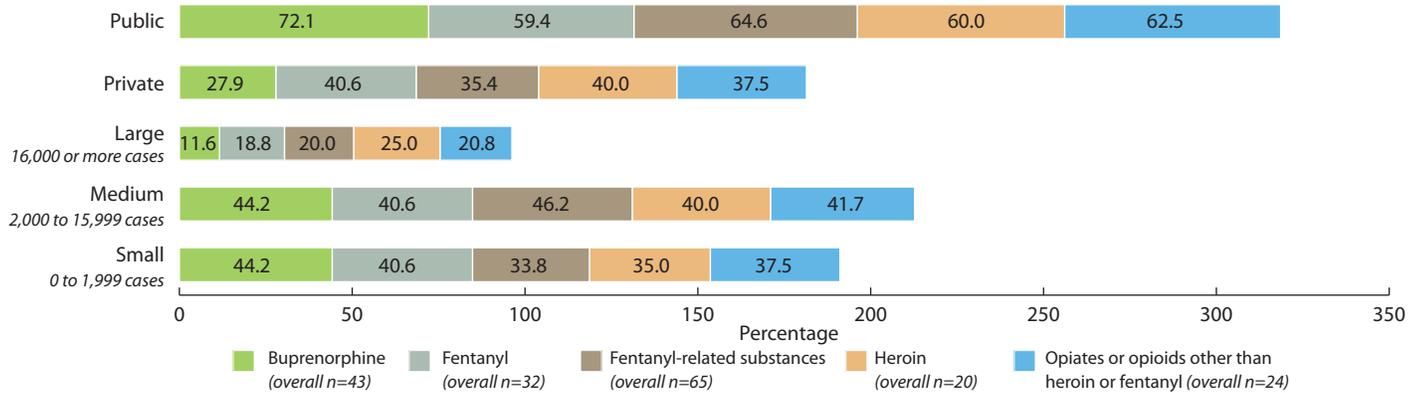


Figure 4 Quantitative Analysis Frequency Reported as “Always” by Medical Examiner and Coroner Offices

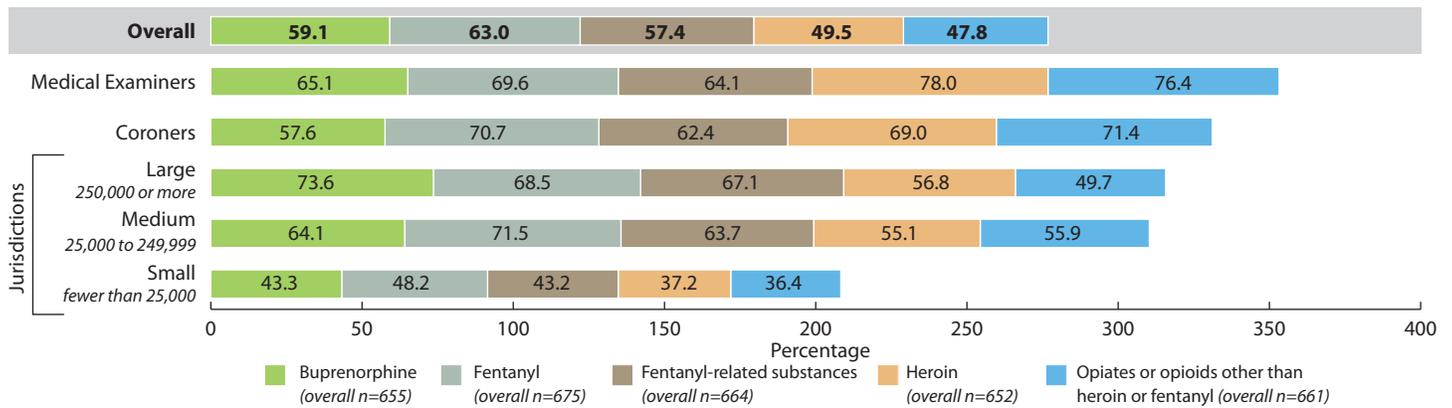
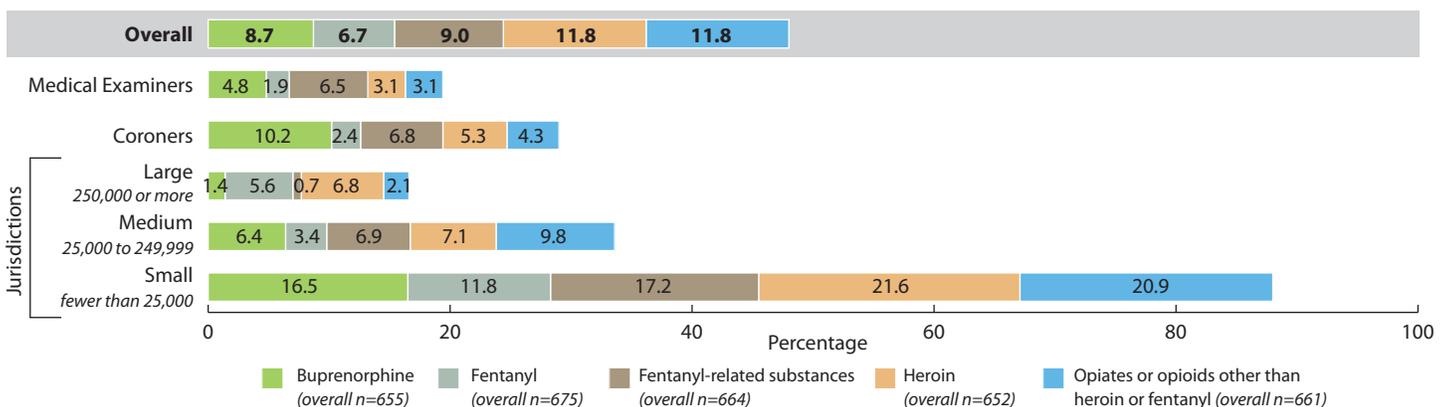


Figure 5 Quantitative Analysis Frequency Reported as “Never” by Medical Examiner and Coroner Offices



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

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