

Updates for Recommendations for Drug Testing in DUID & Traffic Fatality Investigations

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Toxicology
Laboratory
Survey

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**FORENSIC SCIENCE
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Toxicology Laboratories: Final Data Report

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Toxicology Laboratory Survey

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Introduction:

Previous guidelines and recommendations for laboratories performing toxicology testing in support of DUID testing were published in 2007 and 2013 by Farrell, et al. and Logan, et al., respectively. This research aims to assist in critically reviewing, updating and publishing the current guidelines and recommendations for the toxicology community. An online survey was conducted to poll laboratories identified by the Society of Forensic Toxicologists, the American Academy of Forensic Sciences, and the American Board of Forensic Toxicology as being currently engaged in DUID testing. The intention of the survey was to gather information regarding the needs and capabilities of forensic toxicology laboratories. More specifically, the survey was developed with the objectives of identifying current practices, capabilities, research needs and gathering information regarding the scope and sensitivity of testing.

Toxicology laboratory directors or employees were contacted via email to initiate communication, confirm contact information, and verify their eligibility to participate in a survey regarding laboratory services in DUID and fatal crash cases. To create the survey, SurveyMonkey™, an online web survey instrument, was utilized. The survey questions focused on gathering information regarding current drugs being tested for, and the ability to meet previous recommendations. The Drugs: Technology, Pharmacology and Toxicology Section of the NSC Alcohol, Drugs and Impairment Division expanded upon and amended the survey questions to increase their scope and clarity. The final revised survey was prepared for submission to confirmed participants via SurveyMonkey™.

The initial contact list included two hundred and ninety-six toxicology laboratory directors or employees. These individuals were contacted via email and asked to participate in the survey if their laboratories conducted DUID casework (antemortem and/or postmortem). One hundred and eighteen individuals agreed to participate in the survey. These individuals were sent an initial contact email explaining the survey in more details and confirming their email addresses. Follow-up emails were sent to those who did not respond to the initial email. Telephone calls were also made to those who did not respond to the second email. Following these efforts, a total of one hundred and ten individuals confirmed their email addresses and their participation. The survey was then emailed to these individuals to complete. The survey responses were collected and analyzed. Follow-up emails were sent to participants who did not answer every question in an effort to obtain as much information as possible. As a disclaimer, in spite of efforts to collect data, some participants did not respond to all questions, therefore the data represents seventy reasonably completed surveys to the point where the survey was rendered suitable to be included in the data analysis.

Basic Information

What status best describes your laboratory?

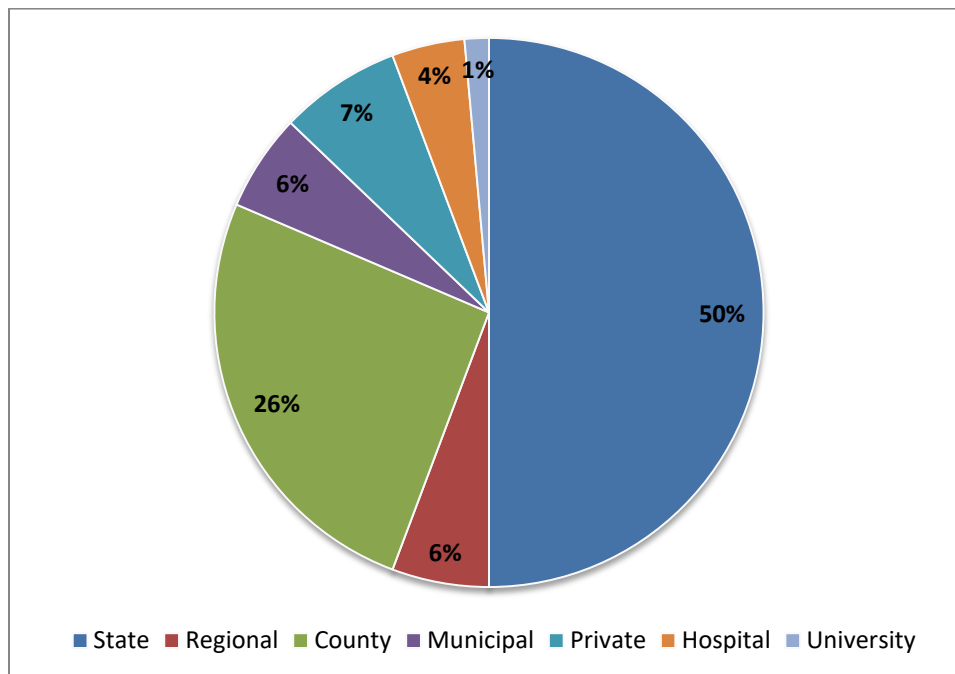


Figure 1. Pie chart representing the percentage of responses to the status of each respondent laboratory status (n = 70).

Of the seventy responses, thirty-five (50%) participants identified their status as a state laboratory, four (6%) participants identified their status as a regional laboratory, eighteen (26%) participants identified their status as a county laboratory, four (6%) participants identified their status as a municipal laboratory, five (7%) participants identified their status as a private laboratory, three (4%) participants identified their status as a hospital laboratory, and one (1%) participant identified his/her status as a university laboratory (Figure 1).

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Toxicology Laboratory Statistics

Approximately how many analysts are doing DUI testing?

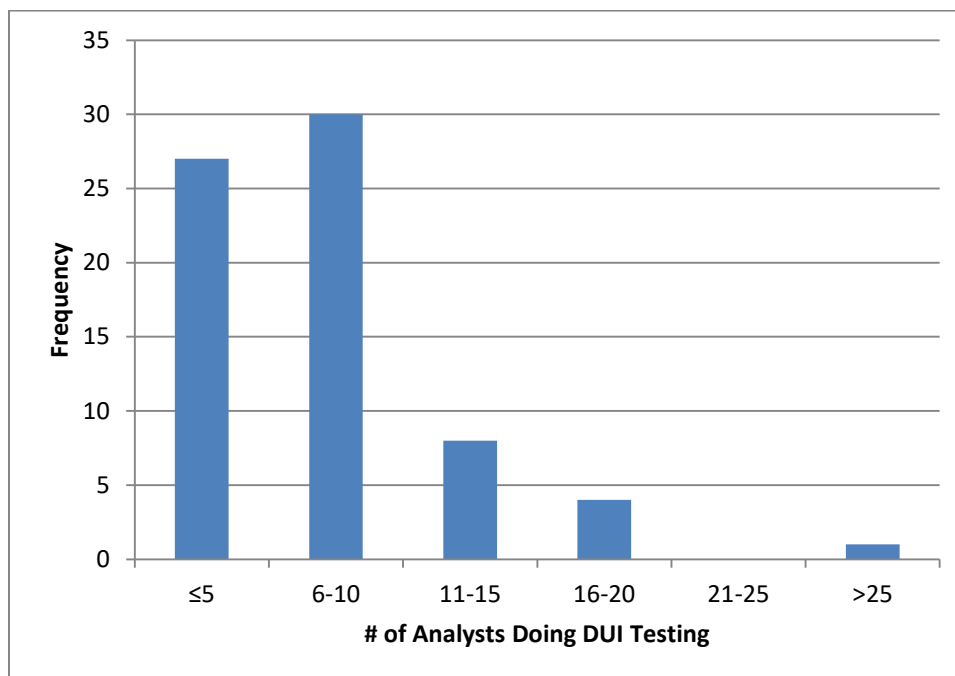


Figure 2. Histogram representing the number of analysts doing DUI testing by each toxicology laboratory (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from zero to seventy-five analysts (Figure 2). Twenty-seven respondents indicated the number of analysts employed by their toxicology laboratory was less than or equal to 5 analysts. Thirty respondents indicated the number of analysts employed by their toxicology laboratory was between 6-10 analysts. Eight respondents indicated the number of analysts employed by their toxicology laboratory was between 11-15 analysts. Four respondents indicated the number of analysts employed by their toxicology laboratory was between 16-20 analysts. Zero respondents indicated the number of analysts employed by their toxicology laboratory was between 21-25 analysts. One respondent indicated the number of analysts employed by his/her toxicology laboratory was greater than 25 analysts.

Approximately how many driving while under the influence of DRUGS cases does your laboratory currently analyze each year?

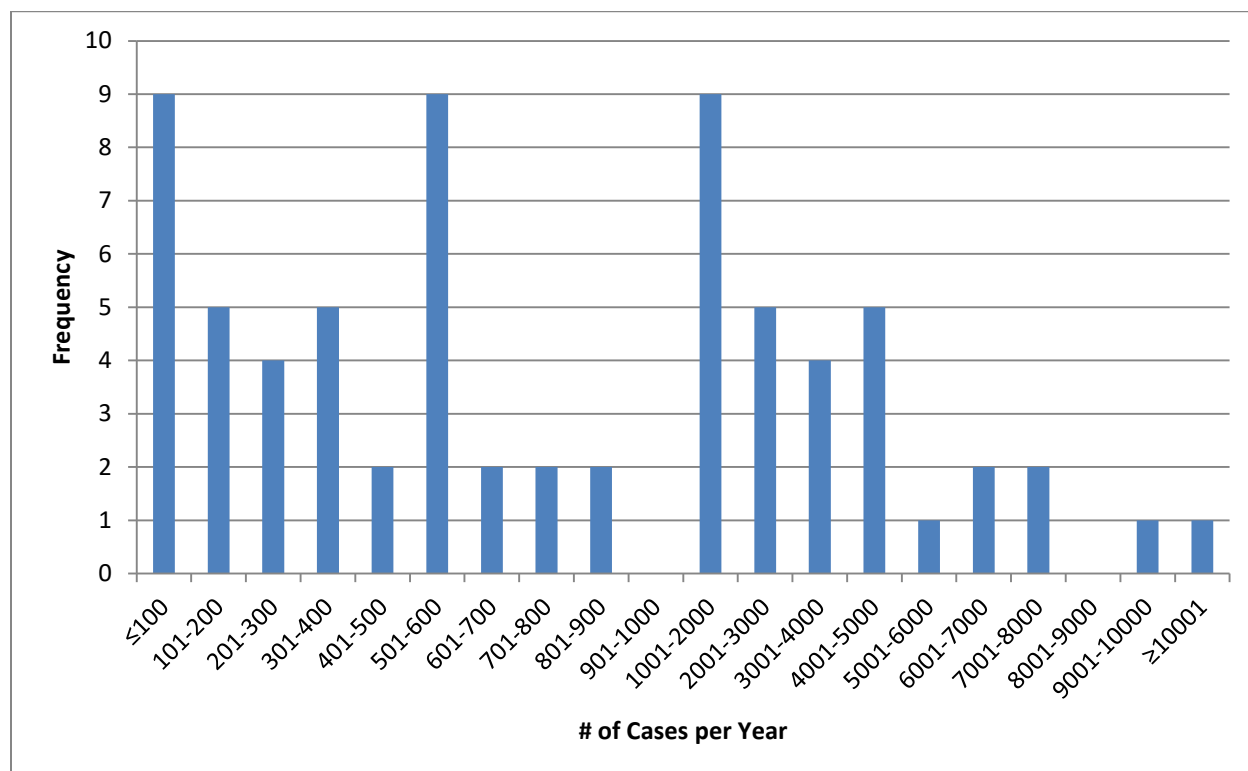


Figure 3. Histogram representing the number of driving while under the influence of DRUGS cases each laboratory currently analyzes each year (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from fifteen to seventeen thousand three hundred driving under the influence of DRUGS cases analyzed each year per laboratory (Figure 3). Nine respondents indicated the number of cases their laboratory analyzes each year was less than or equal to 100 cases. Five respondents indicated the number of cases their laboratory analyzes each year was between 101-200 cases. Four respondents indicated the number of cases their laboratory analyzes each year was between 201-300 cases. Five respondents indicated the number of cases their laboratory analyzes each year was between 301-400 cases. Two respondents indicated the number of cases their laboratory analyzes each year was between 401-500 cases. Nine respondents indicated the number of cases their laboratory analyzes each year was between 501-600 cases. Two respondents indicated the number of cases their laboratory analyzes each year was between 601-700 cases. Two respondents indicated the number of cases their laboratory

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analyzes each year was between 701-800 cases. Two respondents indicated the number of cases their laboratory analyzes each year was between 801-900 cases. Zero respondents indicated the number of cases their laboratory analyzes each year was between 901-1000 cases. Nine respondents indicated the number of cases their laboratory analyzes each year was between 1001-2000 cases. Five respondents indicated the number of cases their laboratory analyzes each year was between 2001-3000 cases. Four respondents indicated the number of cases their laboratory analyzes each year was between 3001-4000 cases. Five respondents indicated the number of cases their laboratory analyzes each year was between 4001-5000 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 5001-6000 cases. Two respondents indicated the number of cases their laboratory analyzes each year was between 6001-7000 cases. Two respondents indicated the number of cases their laboratory analyzes each year was between 7001-8000 cases. Zero respondents indicated the number of cases their laboratory analyzes each year was between 8001-9000 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 9001-10,000 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was greater than or equal to 10,001 cases.

Approximately how many cases are tested for alcohol each year?

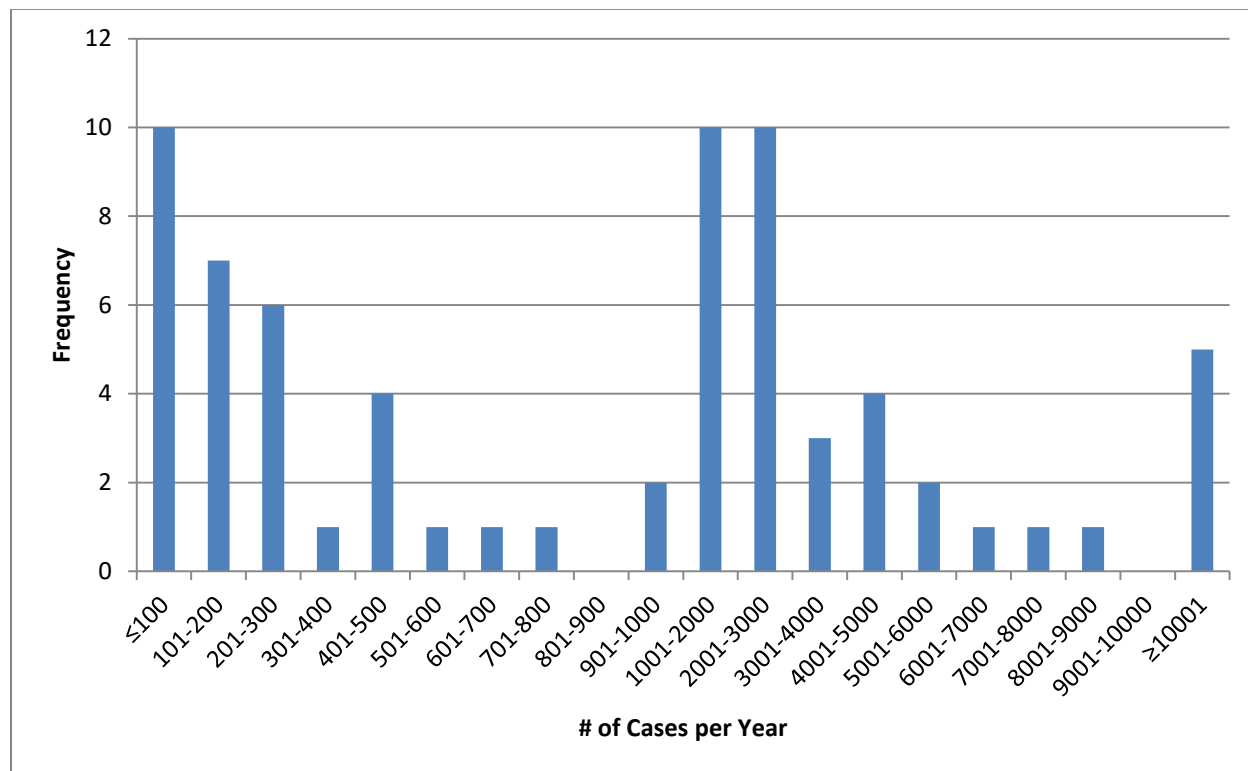


Figure 4. Histogram representing the number of alcohol cases each laboratory currently analyzes each year (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from zero to eighteen thousand alcohol cases analyzed each year per laboratory (Figure 4). Ten respondents indicated the number of cases their laboratory analyzes each year was less than or equal to 100 cases. Seven respondents indicated the number of cases their laboratory analyzes each year was between 101-200 cases. Six respondents indicated the number of cases their laboratory analyzes each year was between 201-300 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 301-400 cases. Four respondents indicated the number of cases their laboratory analyzes each year was between 401-500 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 501-600 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 601-700 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 701-800 cases. Zero respondents indicated the number of cases their laboratory analyzes each year was between 801-900 cases.

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Two respondents indicated the number of cases their laboratory analyzes each year was between 901-1000 cases. Ten respondents indicated the number of cases their laboratory analyzes each year was between 1001-2000 cases. Ten respondents indicated the number of cases their laboratory analyzes each year was between 2001-3000 cases. Three respondents indicated the number of cases their laboratory analyzes each year was between 3001-4000 cases. Four respondents indicated the number of cases their laboratory analyzes each year was between 4001-5000 cases. Two respondents indicated the number of cases their laboratory analyzes each year was between 5001-6000 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 6001-7000 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 7001-8000 cases. One respondent indicated the number of cases his/her laboratory analyzes each year was between 8001-9000 cases. Zero respondents indicated the number of cases their laboratory analyzes each year was between 9001-10,000 cases. Five respondents indicated the number of cases their laboratory analyzes each year was greater than or equal to 10,001 cases.

Approximately how many times each year does your laboratory supply toxicology testimony in DUI alcohol cases?

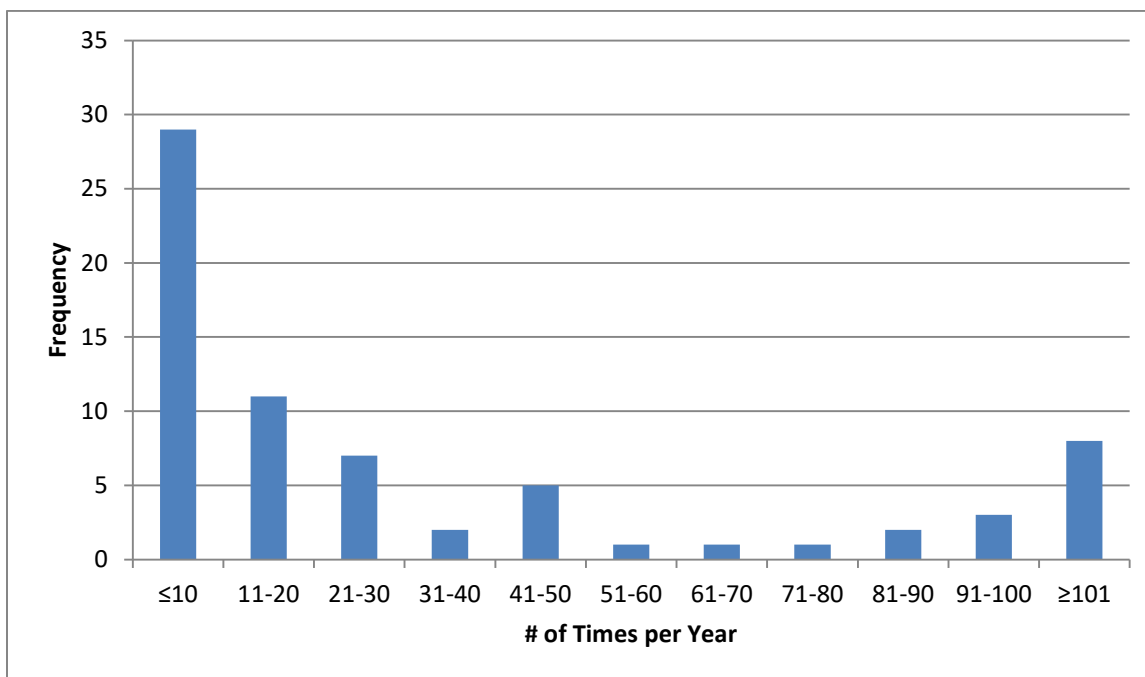


Figure 5. Histogram representing the number of times each laboratory supplies toxicology testimony in DUI alcohol cases each year (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from zero to three hundred and fifty toxicology testimony in DUI alcohol cases each year per laboratory (Figure 5). Twenty-nine respondents indicated the number of testimony their laboratory supplies each year was less than or equal to 10 testimonies. Eleven respondents indicated the number of testimony their laboratory supplies each year was between 11-20 testimonies. Seven respondents indicated the number of testimony their laboratory supplies each year was between 21-30 testimonies. Two respondents indicated the number of testimony their laboratory supplies each year was between 31-40 testimonies. Five respondents indicated the number of testimony their laboratory supplies each year was between 41-50 testimonies. One respondent indicated the number of testimony his/her laboratory supplies each year was between 51-60 testimonies. One respondent indicated the number of testimony his/her laboratory supplies each year was between 61-70 testimonies. One respondent indicated the number of testimony his/her laboratory supplies each year was between 71-80 testimonies. Two respondents indicated the number of testimony their laboratory supplies each year was between

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81-90 testimonies. Three respondents indicated the number of testimony their laboratory supplies each year was between 91-100 testimonies. Eight respondents indicated the number of testimony their laboratory supplies each year was greater than or equal to 101 testimonies.

Approximately how many times each year does your laboratory supply toxicology testimony in DUI drug cases?

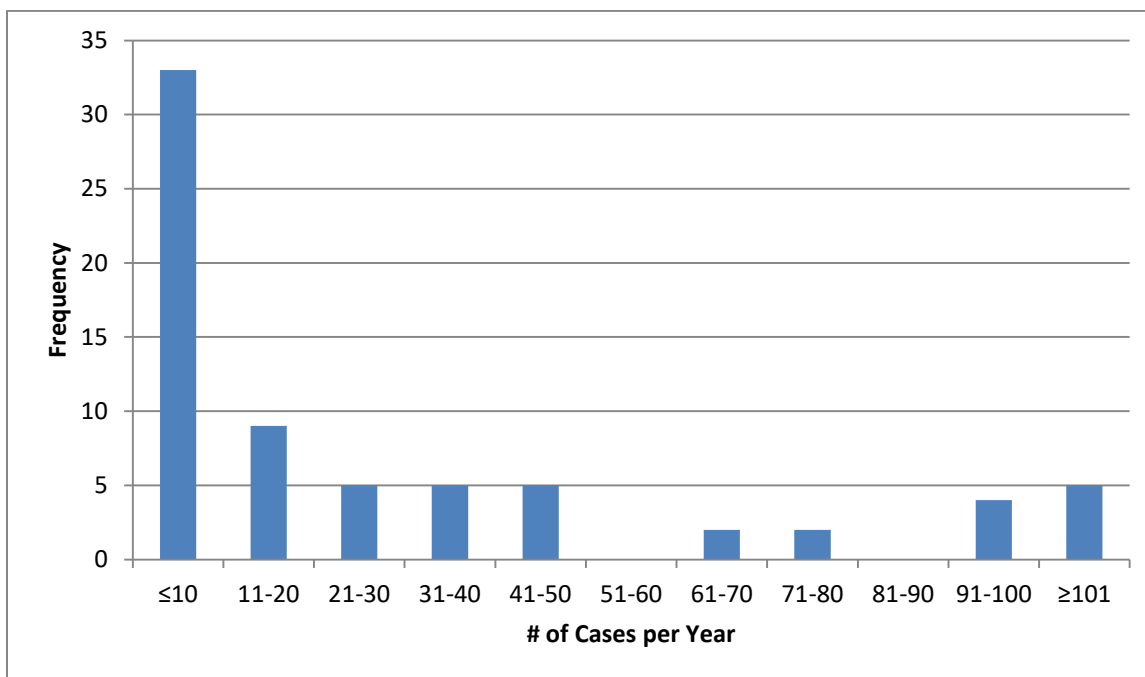


Figure 6. Histogram representing the number of times each laboratory supplies toxicology testimony in DUI drug cases each year (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from zero to two hundred and forty-one toxicology testimony in DUI drug cases each year per laboratory (Figure 6). Thirty-three respondents indicated the number of testimony their laboratory supplies each year was less than or equal to 10 testimonies. Nine respondents indicated the number of testimony their laboratory supplies each year was between 11-20 testimonies. Five respondents indicated the number of testimony their laboratory supplies each year was between 21-30 testimonies. Five respondents indicated the number of testimony their laboratory supplies each year was between 31-40 testimonies. Five respondents indicated the number of testimony their laboratory supplies each year was between 41-50 testimonies. Zero respondents indicated the number of testimony their laboratory supplies each year was between 51-60 testimonies. Two respondents indicated the number of testimony their laboratory supplies each year was between 61-70 testimonies. Two respondents indicated the number of testimony their laboratory supplies each year was between 71-80 testimonies. Zero respondents indicated the number of testimony their laboratory supplies each year was between 81-90 testimonies. Four

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respondents indicated the number of testimony their laboratory supplies each year was between 91-100 testimonies. Five respondents indicated the number of testimony their laboratory supplies each year was greater than or equal to 101 testimonies.

Approximately what percentage of all drug impaired driving cases analyzed by your laboratory have a DRE evaluation performed?

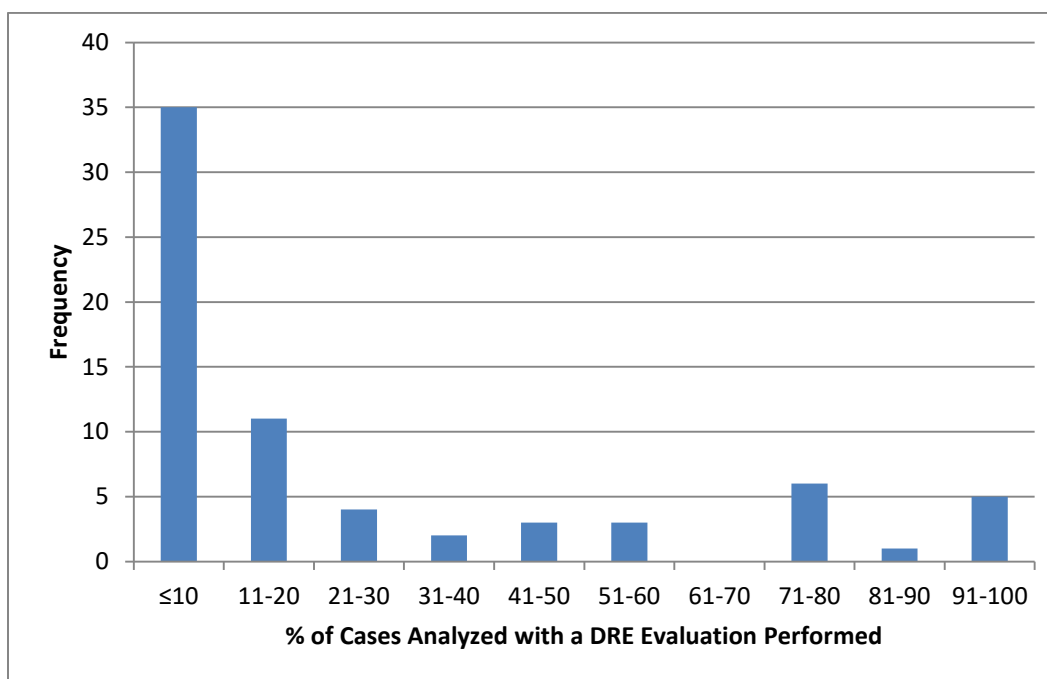


Figure 7. Histogram representing the laboratories' percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from zero to one hundred percent of all drug impaired driving cases analyzed that have a DRE evaluation performed (Figure 7). Thirty-five respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was less than or equal to 10 percent. Eleven respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 11-20 percent. Four respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 21-30 percent. Two respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 31-40 percent. Three respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 41-50 percent. Three respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 51-60 percent. Zero respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed

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was between 61-70 percent. Six respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 71-80 percent. One respondent indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 81-90 percent. Five respondents indicated the percentage of all drug impaired driving cases analyzed that have a DRE evaluation performed was between 91-100 percent.

Does your laboratory make an administrative decision to stop testing if a BAC result is at or above a certain concentration?

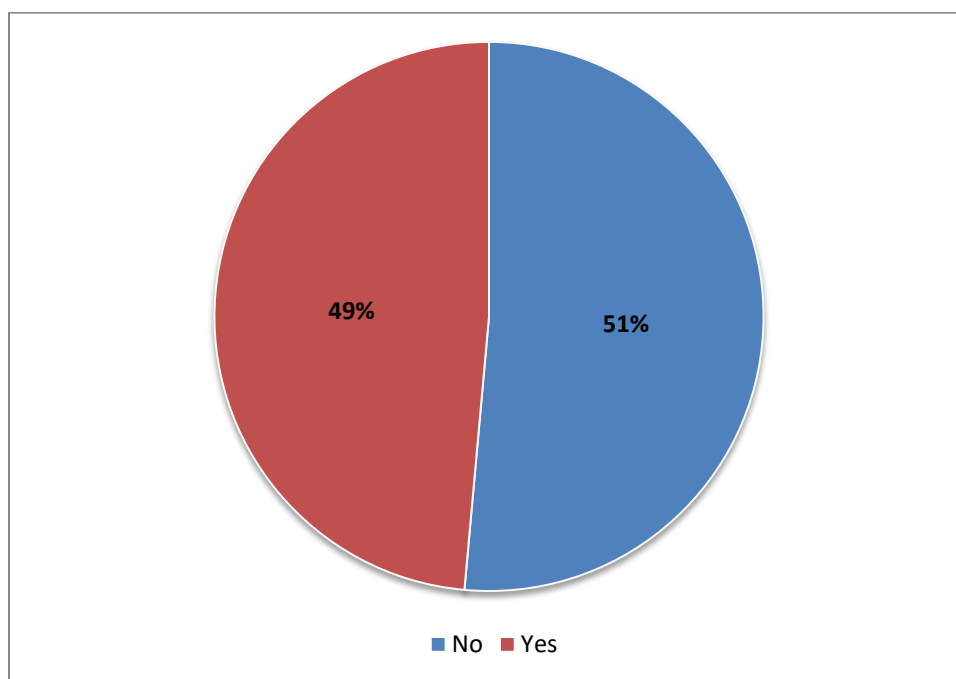


Figure 8. Pie graph representing whether the laboratories make an administrative decision to stop testing if a BAC result is at or above a certain concentration (n = 70).

Of the seventy responses, the majority of the participants responded with “no.” A total of thirty-six out of seventy respondents (51%) said that their laboratory makes an administrative decision to stop testing if a BAC result is at or above a certain concentration. A total of thirty-four out of seventy respondents (49%) said that their laboratory does not make an administrative decision to stop testing if a BAC result is at or above a certain concentration (Figure 8).

Please indicate which describes your laboratory's scope of DUI testing. - If other, please specify and provide an explanation:

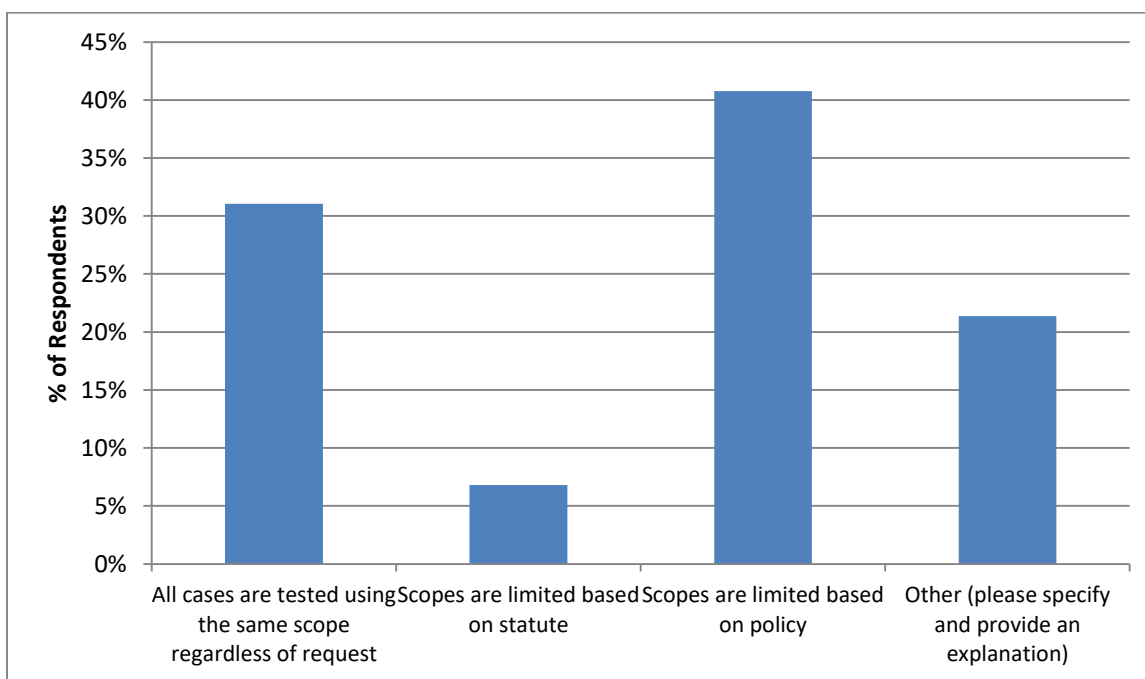


Figure 9. Bar chart representing the laboratory's scope of DUI testing (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from seven to forty-one percent of the laboratory's scope of DUI testing (Figure 9). Thirty-two respondents indicated the percentage of all cases that are tested using the same scope regardless of request was 46%. Seven respondents indicated the percentage of all cases that are tested using scopes limited based on statute was 10%. Forty-two respondents indicated the percentage of all cases that are tested using scopes limited based on policy was 60%.

Respondents also had the ability to comment on other reasons for their laboratory's scope of DUI testing (twenty-two responses; 31% of the participants). Of these twenty-two responses, eleven respondents indicated the percentage of all cases that are tested using scopes based on the client was 50%. Comments included that all cases are tested for alcohol regardless of request; however, drug testing is done at the request of the agency.

Of these twenty-two responses, three respondents indicated the percentage of all cases that are tested using scopes based on blood alcohol concentration was 14%. Comments included

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that both blood alcohol and drugs are tested for if the blood alcohol concentration is less than 0.1g/100mL; however, for concentrations greater than 0.1g/100mL, drug testing will only occur if an additional request is made by the submitting agency.

Of these twenty-two responses, five respondents indicated the percentage of all cases that are tested using scopes based on the case was 23%. Comments included that all DRE samples are analyzed for drugs and all requests regardless of charge, all felony DUI cases are analyzed for drugs including all requests, and DUI cases with BACs less than 0.08% are tested for drugs including requests for any drug that could cause impairment. One participant stated that while scopes are generally defined by policy, Ph.D. toxicologists can add additional testing based on case history. Another participant stated that testing is subject to sample volume. One participant stated that his/her laboratory will test outside the scope if a drug not included in the laboratory's scope is suspected.

Of these twenty-two responses, one respondent indicated the percentage of all cases that are tested using scopes based on DRE was 5%.

Are cases involving deceased drivers handled differently than living drivers?

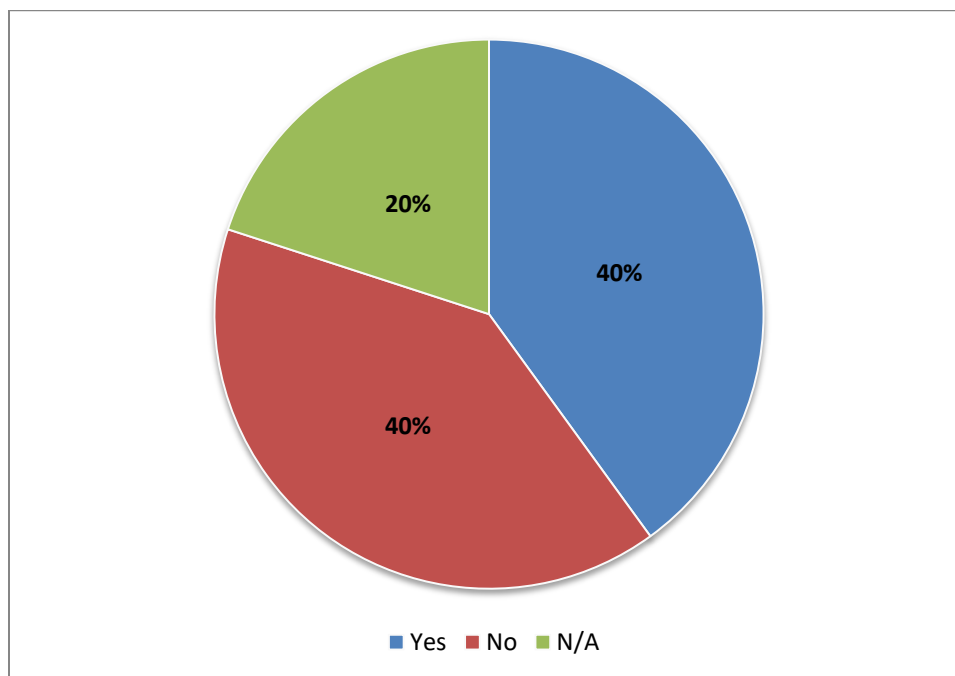


Figure 10. Pie graph representing whether laboratories handle cases involving deceased drivers differently than living drivers (n = 70).

Of the seventy responses, the participants responded evenly with “yes” and “no.” A total of twenty-eight out of seventy respondents (40%) said that their laboratory handles cases involving deceased drivers differently than living drivers. A total of twenty-eight out of seventy respondents (40%) said that their laboratory does not handle cases involving deceased drivers differently than living drivers. A total of fourteen out of seventy respondents (20%) said that their laboratory does not handle post-mortem cases; therefore, they could not comment on this question (Figure 10).

Respondents had the ability to comment on how cases involving deceased drivers are handled differently than living drivers (twenty-eight responses; 40% of the participants). One participant stated that cases involving deceased drivers are screened with a larger drug panel. Another participant stated that deceased drivers will have an alkaline screen performed in addition to an EMIT screen, whereas not all living drivers have the additional alkaline screen. One participant stated that driving-related fatalities in general are not handled differently, but the scope of DUID testing may be more extensive for a fatality and all presumptive analytes would be confirmed. Another participant stated that fatality accidents receive alcohol and drug testing;

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however, if the DUI is greater than 0.08 then the laboratory stops testing. One participant stated that drug testing is not performed for alcohol levels greater than or equal to 0.200 for deceased drivers, while drug testing is not performed for alcohol levels greater than 0.100 for living drivers. Another participant stated that it all depends on the tests requested by the submitting agency. If the request is to perform drug testing regardless of the driving status then testing is performed on the submitted specimen; however, if the request is to perform a post-mortem panel then that is the scope of testing performed. One participant stated that all testing is performed on deceased drivers while living drivers are subject to various statute or laboratory policies. Another participant stated that deceased drivers typically get a full toxicology panel per pathologist ordering the testing. One participant stated that cases involving deceased suspects and/or other victims are analyzed more thoroughly regardless of the submitting agency's request. Another participant stated that his/her laboratory will analyze for more drugs if there is a motor vehicle accident; however, for normal DUIDs, only drugs that are screened positive on the immunoassay screen are confirmed.

Is there a specific scope for drug testing if alcohol is below a certain limit?

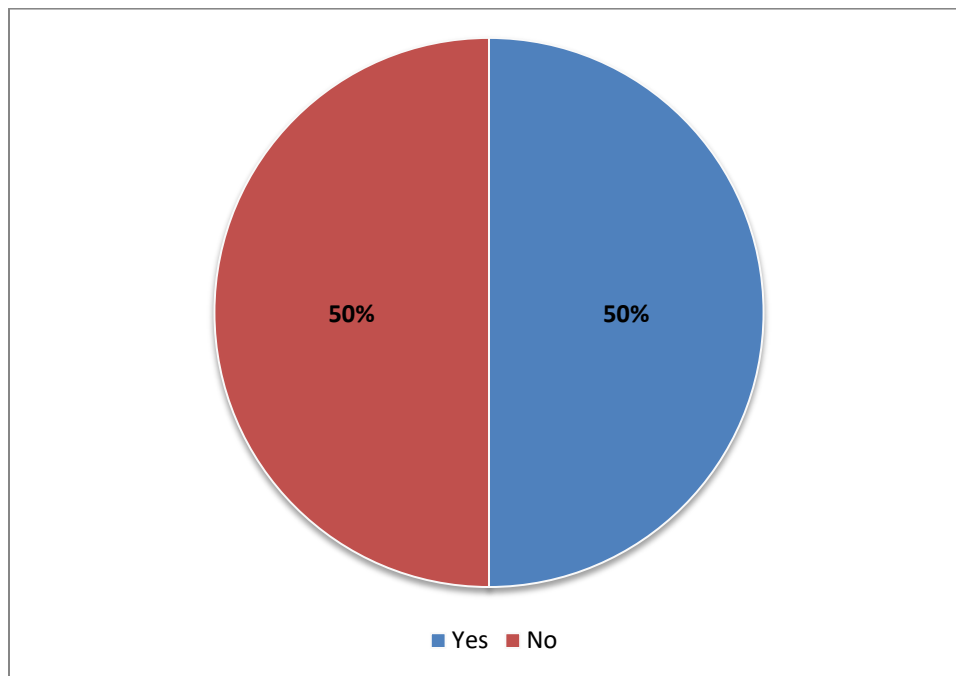


Figure 11. Pie graph representing whether laboratories have a specific scope for drug testing if alcohol is below a certain limit (n = 70).

Of the seventy responses, the participants responded evenly. A total of thirty-five out of seventy respondents (50%) said that their laboratory has a specific scope for drug testing if alcohol is below a certain limit. A total of thirty-five out of seventy respondents (50%) said that their laboratory does not have a specific scope for drug testing if alcohol is below a certain limit (Figure 11).

Laboratory Methods

Please indicate what methods are routinely used for drug SCREENING in DUID/traffic fatality testing:

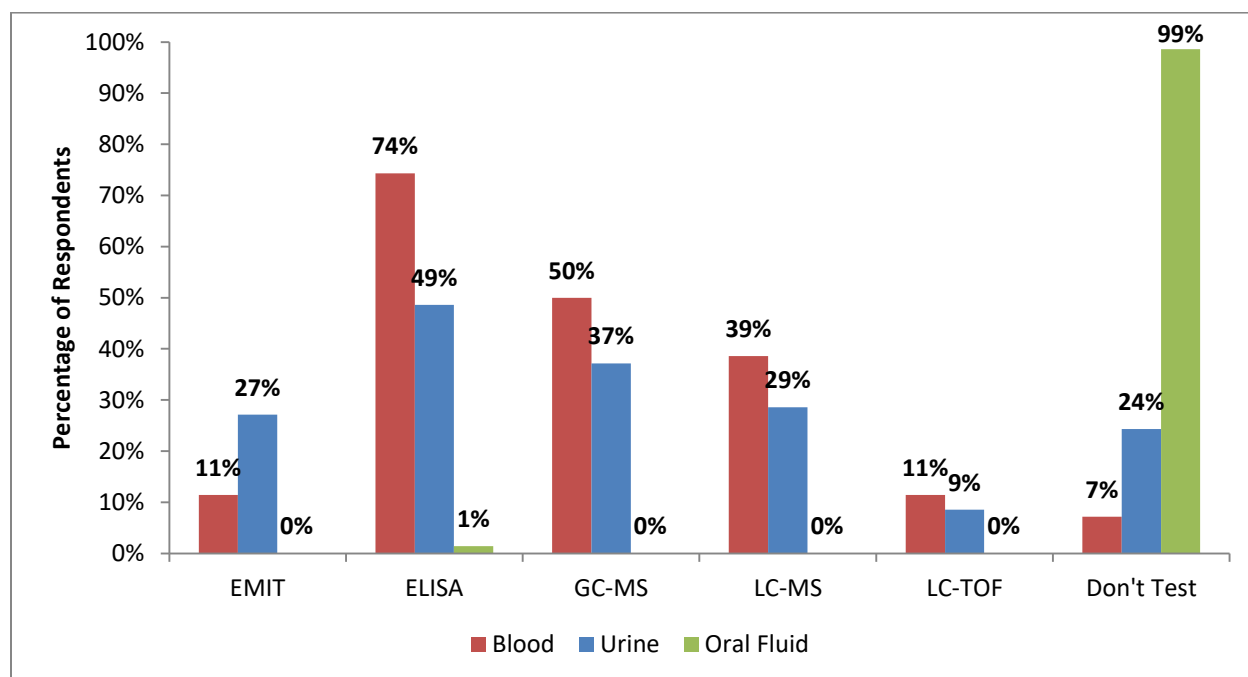


Figure 12. Bar graph representing what methods are routinely used for drug screening (n = 70).

Seventy participants responded to this question. As multiple methods could be selected, a total of 135 responses were made to which methods are used for screening blood samples. Out of these responses, 11% (8 participants) indicated the use of EMIT, 74% (52 participants) indicated the use of ELISA, 50% (35 participants) indicated the use of GC-MS, 39% (27 participants) indicated the use of LC-MS, 11% (8 participants) indicate the use of LC-TOF, and 7% (5 participants) indicated that they do not test blood for screening purposes. A total of 122 responses were made to which methods are used for screening urine samples. Out of these responses, 27% (19 participants) indicated the use of EMIT, 49% (34 participants) indicated the use of ELISA, 37% (26 participants) indicated the use of GC-MS, 29% (20 participants) indicated the use of LC-MS, 9% (6 participants) indicate the use of LC-TOF, and 24% (17 participants) indicated that they do not test urine for screening purposes. A total of 70 responses were made to which methods are used for screening oral fluid samples. Out of these responses, 0% (0 participants) indicated the use of EMIT, 1% (1 participants) indicated the use of ELISA, 0% (0 participants) indicated the use of GC-MS, 0% (0 participants) indicated the use of LC-MS, 0% (0 participants) indicate the use of LC-TOF, and 99% (69 participants) indicated that they do

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not test oral fluid for screening purposes. See Figure 12 for a bar graph representation of this data.

Respondents also had the ability to comment on other methods routinely used for drug screening in DUID/traffic fatality testing (7 participants; 10%). Of the seven respondents, three participants (43%) stated that they use other gas chromatography instruments for drug screening including GC-NPD and GC-FID. Of the seven respondents, two participants (29%) stated that they use other immunoassays for drug screening including Randox Biochip Array Technology. Of the seven respondents, two participants (29%) stated that they do not test urine and/or urine samples are outsourced for screening.

Please indicate what methods are routinely used for drug CONFIRMATION in DUID/traffic fatality testing:

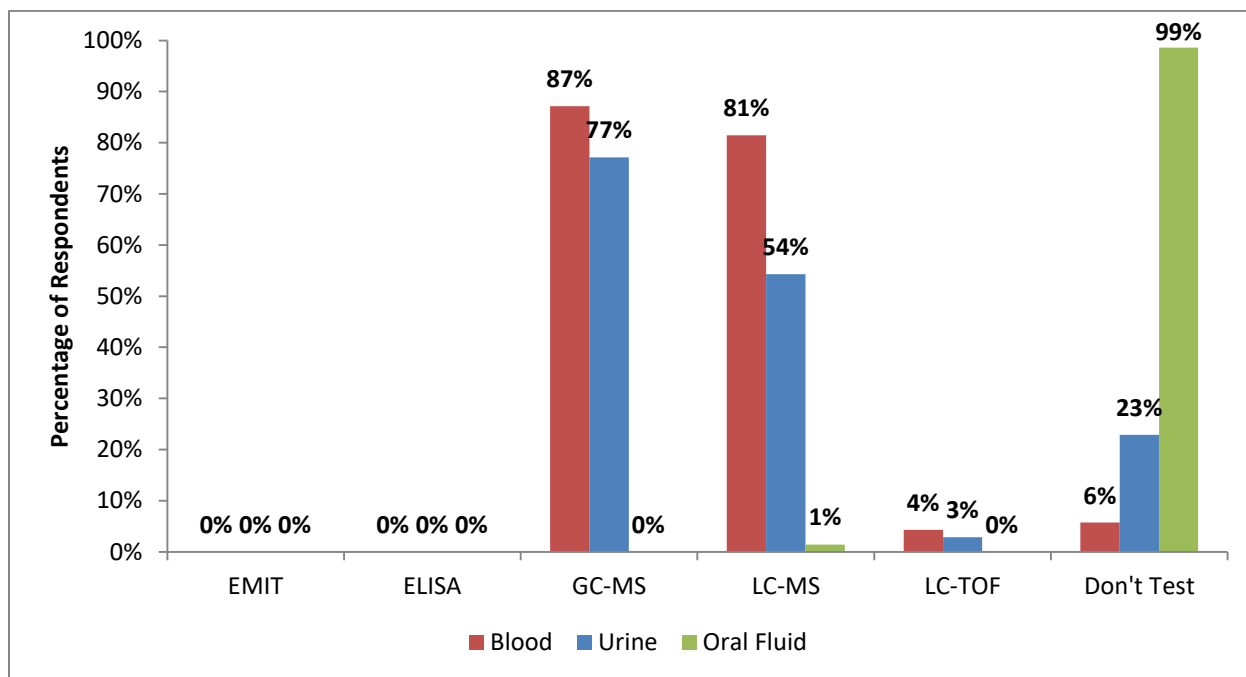


Figure 13. Bar graph representing what methods are routinely used for drug confirmation (n = 70).

Seventy participants responded to this question. As multiple methods could be selected, a total of 125 responses were made to which methods are used for screening blood samples. Out of these responses, 0% (0 participants) indicated the use of EMIT, 0% (0 participants) indicated the use of ELISA, 87% (61 participants) indicated the use of GC-MS, 81% (57 participants) indicated the use of LC-MS, 4% (3 participants) indicate the use of LC-TOF, and 6% (4 participants) indicated that they do not test blood for screening purposes. A total of 110 responses were made to which methods are used for screening urine samples. Out of these responses, 0% (0 participants) indicated the use of EMIT, 0% (0 participants) indicated the use of ELISA, 77% (54 participants) indicated the use of GC-MS, 54% (38 participants) indicated the use of LC-MS, 3% (2 participants) indicate the use of LC-TOF, and 23% (16 participants) indicated that they do not test urine for screening purposes. A total of 70 responses were made to which methods are used for screening oral fluid samples. Out of these responses, 0% (0 participants) indicated the use of EMIT, 0% (0 participants) indicated the use of ELISA, 0% (0 participants) indicated the use of GC-MS, 1% (1 participants) indicated the use of LC-MS, 0% (0

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participants) indicate the use of LC-TOF, and 99% (69 participants) indicated that they do not test oral fluid for screening purposes. See Figure 13 for a bar graph representation of this data.

Respondents also had the ability to comment on other methods routinely used for drug confirmation in DUID/traffic fatality testing (5 participants; 7%). Of the five respondents, five participants (100%) stated that they use other gas chromatography instruments for drug confirmation including GC-NPD, GC-FID, GC-FID/FID, GC-MS/MS, and HS-GC-FID.

Does your laboratory report unconfirmed screening results?

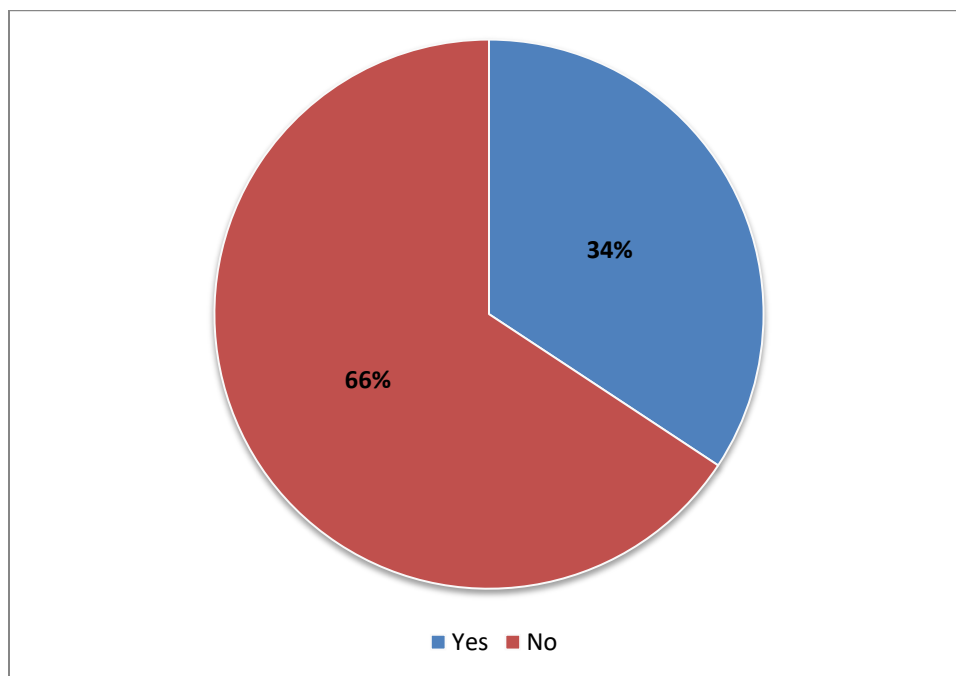


Figure 14. Pie graph representing whether the laboratories report unconfirmed screen results (n = 70).

Of the seventy responses, the majority of the participants responded with “no.” A total of twenty-four out of seventy respondents (34%) said that their laboratory reports unconfirmed screen results. A total of forty-six out of seventy respondents (66%) said that their laboratory does not report unconfirmed screen results (Figure 14).

If the laboratory indicated that it reported unconfirmed screen results then the participant had the ability to explain by a free text response comment. According to the seventeen free text responses, eleven respondents (65%) stated that their laboratory notes unconfirmed screening results as “not confirmed”. Two laboratories release screening reports with a note saying that confirmation is required for court. Another participant stated that unconfirmed screening results are reported at the analyst’s discretion, more specifically, if the screen is positive but the confirmation is just below the cutoff, the analyst may choose to put “indicates presence of” and note not confirmed. One participant stated that results are reported with a comment that results were not confirmed. Another participant stated that results are identified as screen only. One participant stated that all cases are screened by EIA or GC/MS, with the GC/MS results reported as “indicated” substances. Another participant stated that unconfirmed screening results are

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reported with a comment indicating that results are presumptive only and cannot be used for legal purposes.

Two respondents (12%) out of seventeen respondents stated that the submitting agency can request confirmation testing. One participant stated that unconfirmed screening results are reported as presumptive positives and the submitting agency can request confirmation testing.

Three respondents (18%) out of seventeen respondents stated that unconfirmed screening results are reported regardless. One participant stated that results of all tests or series of tests are reported. Another participant stated that his/her laboratory typically only confirms one drug; therefore, in poly drug cases, the laboratory would report a positive screen for the remaining drugs.

Two respondents (12%) out of seventeen respondents stated that their laboratory reports unconfirmed screening results with a note that the sample quantity was not sufficient to undergo confirmation testing. One participant stated that if quantity is not sufficient for confirmation testing then a statement is added to clarify there is a limitation of testing.

Drug Analysis – BLOOD

Does your laboratory provide BLOOD sample analytical services (screening or confirmation) for DUID/traffic fatality samples?

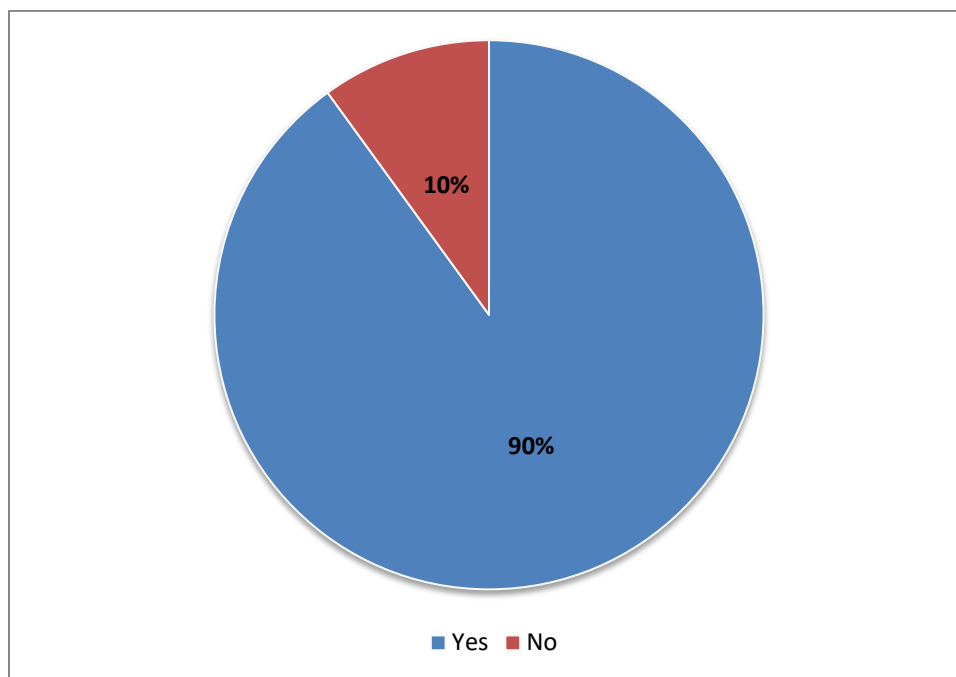


Figure 15. Pie graph representing whether the laboratories provide BLOOD sample analytical services (screening or confirmation) for DUID samples (n = 70).

Of the seventy responses, the majority of the participants responded with “yes.” A total of sixty-three out of seventy respondents (90%) said that their laboratory provides blood sample analytical services (screening or confirmation) for DUID cases. A total of seven out of seventy respondents (10%) said that their laboratory does not provide blood sample analytical services (screening or confirmation) for DUID cases (Figure 15).

Are the drug testing services (drug menu and sensitivities) identical for both DUID and traffic fatality cases?

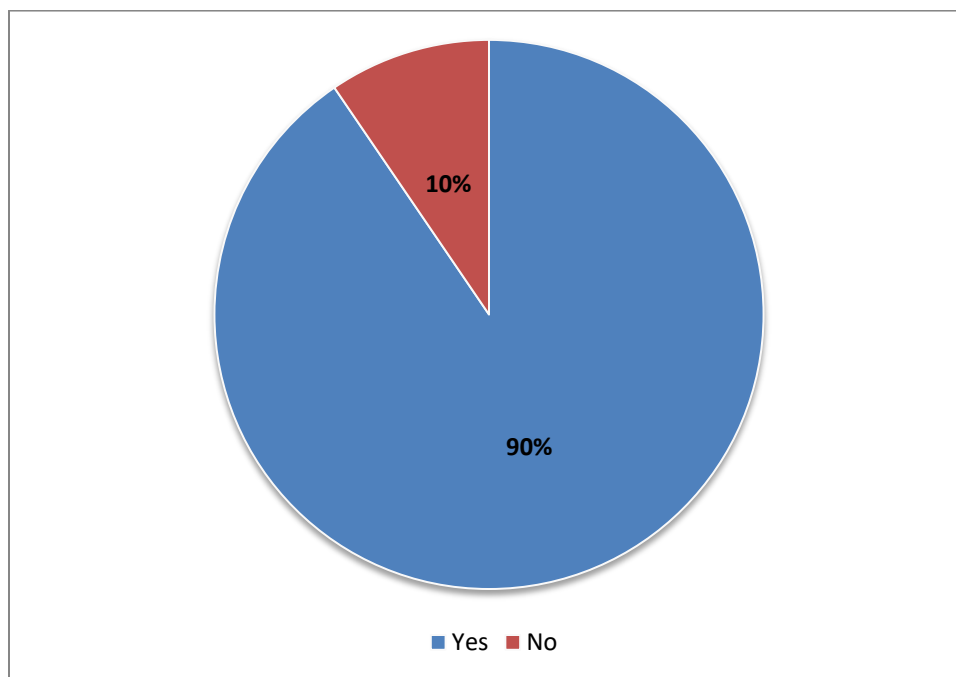


Figure 16. Pie graph representing whether the drug testing services (drug menu and sensitivities) are identical for DUID and traffic fatality cases (n = 63).

Of the sixty-three responses, the majority of the participants responded with “yes.” A total of fifty-seven out of sixty-three respondents (90%) said that their laboratory provides drug testing services (drug menu and sensitivities) identical for DUID and traffic fatality cases. A total of six out of sixty-three respondents (10%) said that their laboratory does not provide drug testing services (drug menu and sensitivities) identical for DUID and traffic fatality cases (Figure 16).

Drug Analysis – BLOOD – SCREENING Do you currently meet the guideline recommendations (given in parentheses) for SCREENING in each of these drugs in BLOOD samples? (Graph Format)

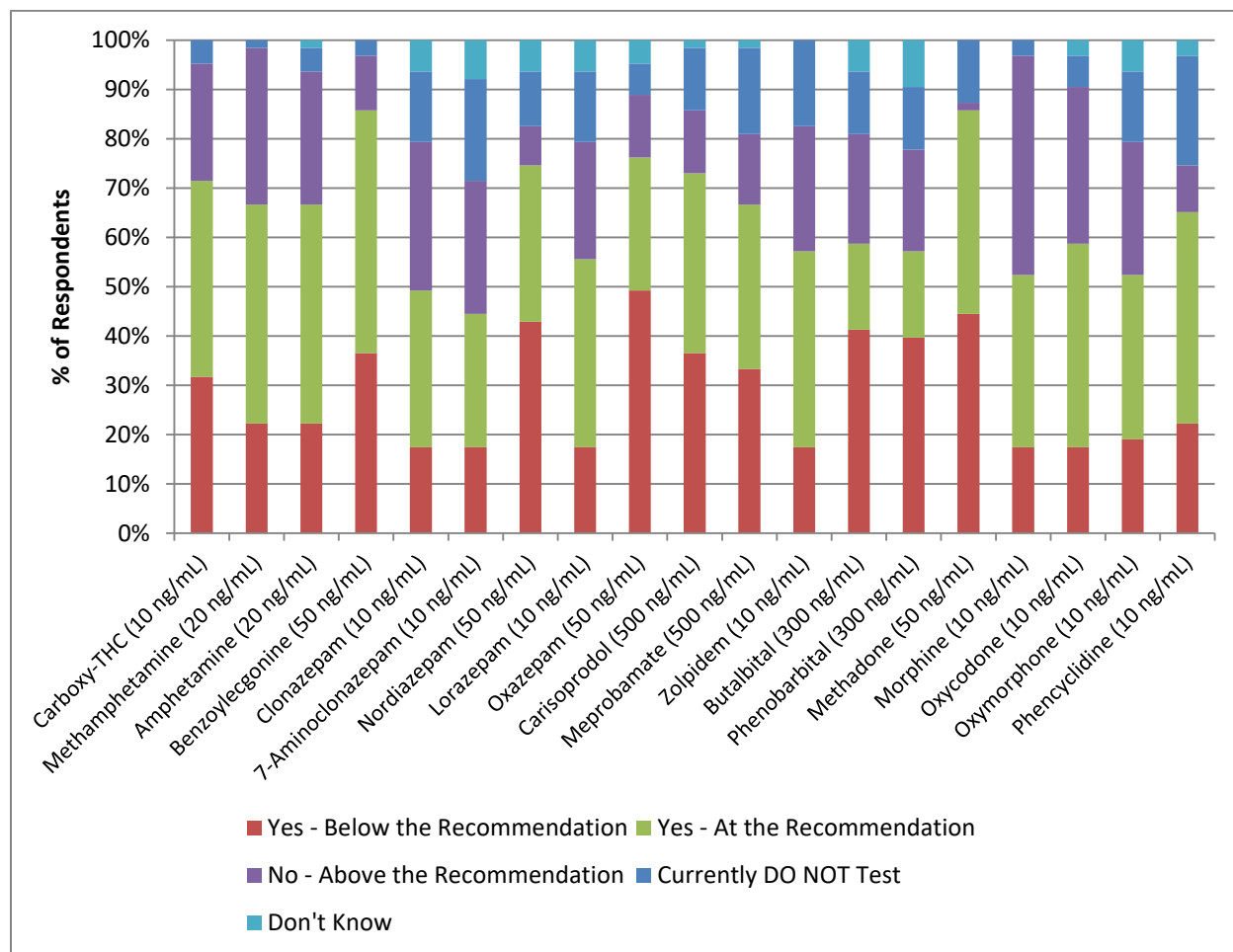


Figure 17. Bar graph representing whether or not laboratories meet the guideline recommendations for screening drugs in blood.

Drug Analysis – BLOOD – SCREENING Do you currently meet the guideline recommendations (given in parentheses) for SCREENING in each of these drugs in BLOOD samples? (Table Format)

Drug	% of Respondents who test for this drug ("Total that Test")	% of Respondents that meet the recommendation/Total that Test
Cannabis		
Carboxy-THC	95%	75%
CNS Stimulants		
Methamphetamine	98%	73%
Amphetamine	94%	71%
Benzoyllecgonine	97%	69%
CNS Depressants		
Clonazepam	79%	62%
7-Aminoclonazepam	71%	62%
Nordiazepam	83%	90%
Lorazepam	79%	70%
Oxazepam	89%	86%
Carisoprodol	86%	85%
Meprobamate	81%	82%
Zolpidem	83%	69%
Butalbital	81%	73%
Phenobarbital	78%	73%
Narcotic Analgesics		
Methadone	87%	98%
Morphine	97%	54%
Oxycodone	90%	65%
Oxymorphone	79%	66%
Dissociative Drugs		
Phencyclidine	75%	87%

Figure 18. A table consisting of percentages regarding those who test for the drug as well as what percentage of those who test either meet or exceed the guideline recommendations for screening drugs in blood.

The percentage of respondents who test for this drug was calculated by adding together the number of respondents that meet the recommendation by being at or below the recommendation and respondents that do not meet the recommendation by being above the recommendation. The result was termed the “Total that Test” and was used as the denominator.

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for calculating the percentage of respondents who test that meet the recommendation (third column). This percentage represents the percentage of respondents that meet the recommendation out of the total percentage of respondents that test for the drug. All subsequent data was calculated in this manner.

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Cannabis

For **Carboxy-THC** at the recommended screening cutoff of 10 ng/mL, 32% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 40% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 75% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 24% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 5% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Stimulants

For **Methamphetamine** at the recommended screening cutoff of 20 ng/mL, 22% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 44% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 73% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total 32% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Amphetamine** at the recommended screening cutoff of 20 ng/mL, 22% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 44% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 71% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 27% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 5% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Benzoyllecgonine** at the recommended screening cutoff of 10 ng/mL, 37% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 49% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for

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this drug, a total of 69% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 11% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 3% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Depressants

For **Clonazepam** at the recommended screening cutoff of 10 ng/mL, 17% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 32% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 62% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 30% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 14% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **7-Aminoclonazepam** at the recommended screening cutoff of 10 ng/mL, 17% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 62% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 27% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 21% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Nordiazepam** at the recommended screening cutoff of 50 ng/mL, 43% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 32% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 11% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Lorazepam** at the recommended screening cutoff of 10 ng/mL, 17% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 38% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 70% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 24% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 14% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxazepam** at the recommended screening cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 86% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 13% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carisoprodol** at the recommended screening cutoff of 500 ng/mL, 37% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 37% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 85% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 13% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 13% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Meprobamate** at the recommended screening cutoff of 500 ng/mL, 33% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 33% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 82% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 14% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 17% of

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participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Zolpidem** at the recommended screening cutoff of 10 ng/mL, 17% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 40% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 69% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 25% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 17% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Butalbital** at the recommended screening cutoff of 300 ng/mL, 41% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 17% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 73% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 13% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Phenobarbital** at the recommended screening cutoff of 300 ng/mL, 40% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 17% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 73% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 21% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 13% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Narcotic Analgesics

For **Methadone** at the recommended screening cutoff of 50 ng/mL, 44% of participants reported meeting the guideline recommendation by being below the recommended screening

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cutoff. A total of 41% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 98% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 2% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 13% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Morphine** at the recommended screening cutoff of 10 ng/mL, 17% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 35% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 54% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 44% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 3% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxycodone** at the recommended screening cutoff of 10 ng/mL, 17% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 41% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 65% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 32% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 3% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxymorphone** at the recommended screening cutoff of 10 ng/mL, 19% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 33% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 66% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 27% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 14% of participants reported that they do not test for this drug. A total of 6% of participants reported that

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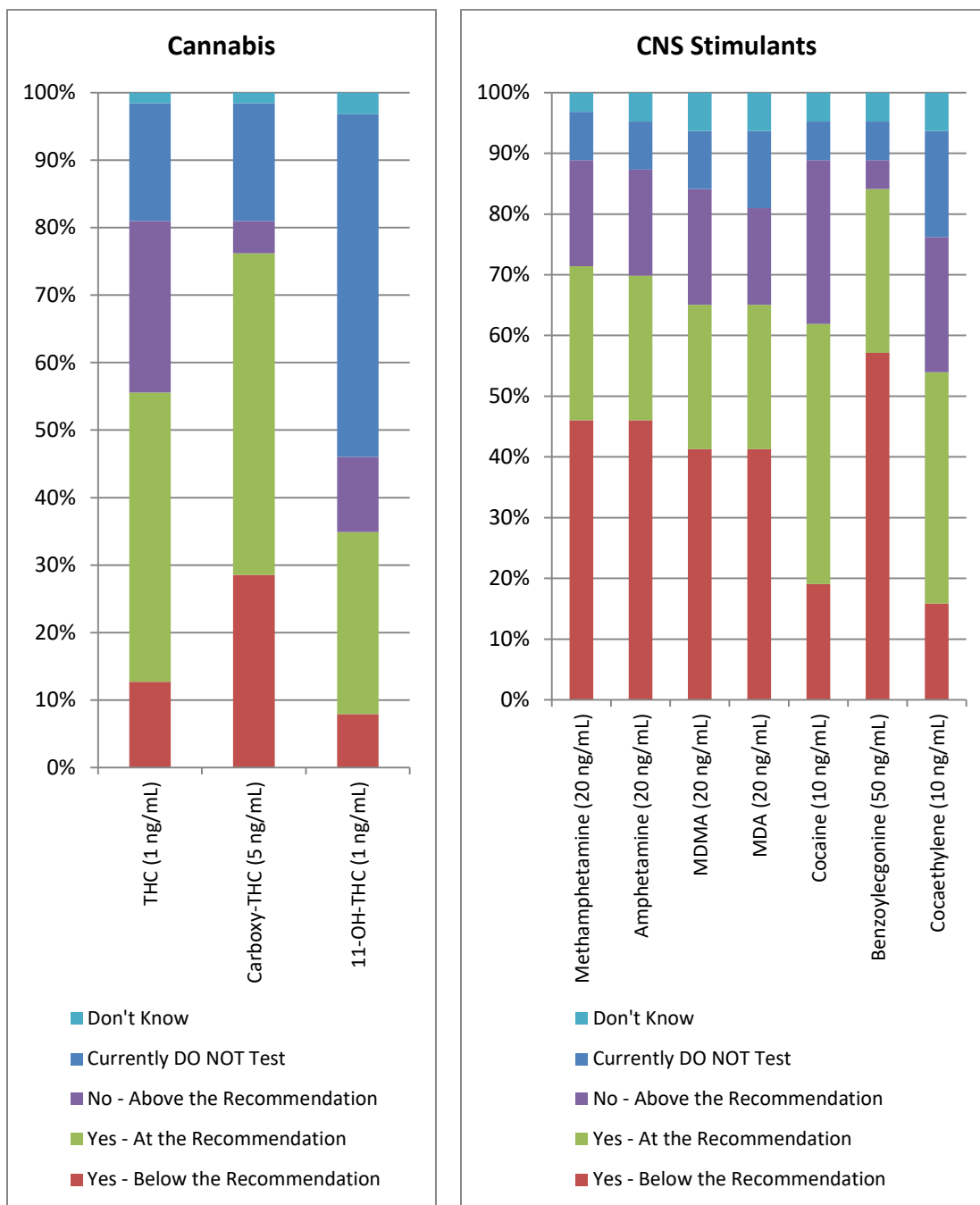
they either do not know if they meet the guideline recommendation or did not respond to the question.

Dissociative Drugs

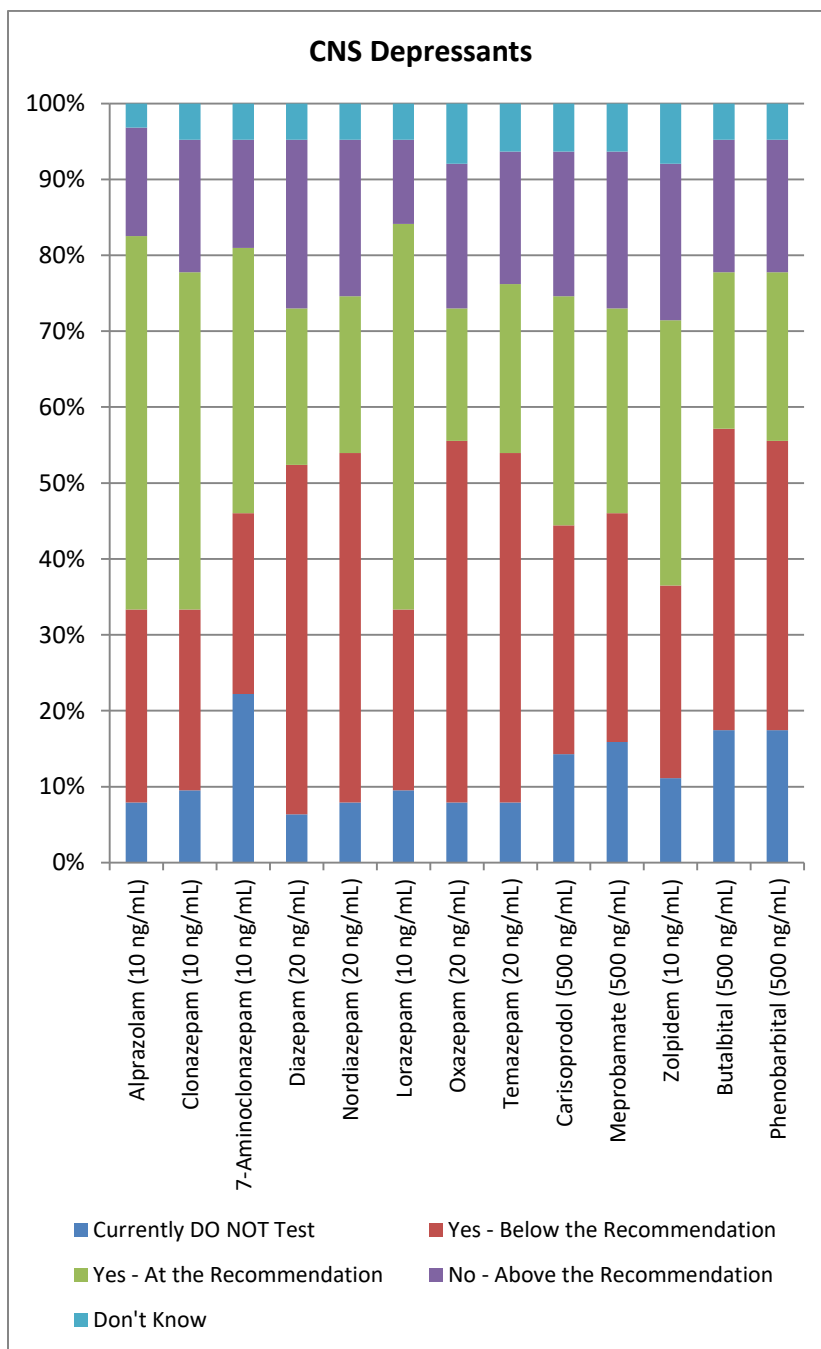
For **Phencyclidine** at the recommended screening cutoff of 10 ng/mL, 22% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 43% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 87% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 10% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 22% of participants reported that they do not test for this drug. A total of 3% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Overall, **Oxazepam** was the most frequently reported (49%) drug in this set for meeting the guideline recommendation by being below the recommended screening cutoff. **Benzoyllecgonine** was the most frequently reported (49%) drug in this set for meeting the guideline recommendation by being at the recommended screening cutoff. **Morphine** was the most frequently reported (44%) drug in this set for not meeting the guideline recommendation by being below the recommended screening cutoff. No drug in this set was reported as always being tested.

Drug Analysis – BLOOD – CONFIRMATION Do you currently meet the guideline recommendations (given in parentheses) for **CONFIRMING** each of these drugs in **BLOOD** samples? (Graph Format)



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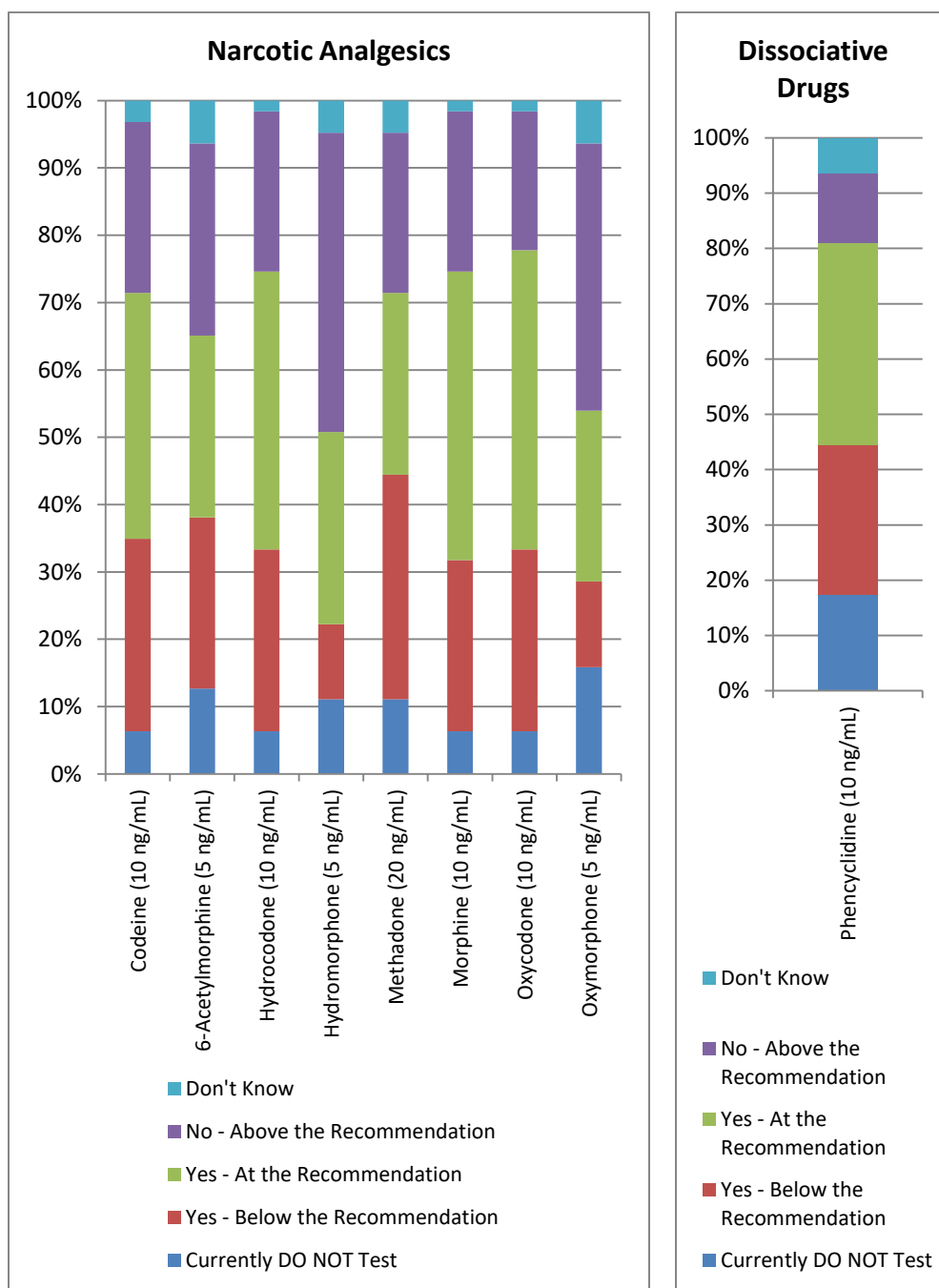


Figure 19. Bar graph representing whether or not laboratories meet the guideline recommendations for confirming drugs in blood.

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Drug Analysis – BLOOD – CONFIRMATION Do you currently meet the guideline recommendations (given in parentheses) for CONFIRMING each of these drugs in BLOOD samples? (Table Format)

Drug	% of Respondents who test for this drug ("Total that Test")	% of Respondents that meet the recommendation/Total that Test
Cannabis		
THC	81%	69%
Carboxy-THC	81%	94%
11-OH-THC	46%	76%
CNS Stimulants		
Methamphetamine	89%	80%
Amphetamine	87%	80%
MDMA	84%	77%
MDA	81%	80%
Cocaine	89%	70%
Benzoylcegonine	89%	95%
Cocaethylene	76%	71%
CNS Depressants		
Alprazolam	89%	84%
Clonazepam	86%	80%
7-Aminoclonazepam	73%	80%
Diazepam	89%	75%
Nordiazepam	87%	76%
Lorazepam	86%	87%
Oxazepam	84%	77%
Temazepam	86%	80%
Carisoprodol	79%	76%
Meprobamate	78%	73%
Zolpidem	81%	75%
Butalbital	78%	78%
Phenobarbital	78%	78%
Narcotic Analgesics		
Codeine	90%	72%
6-Acetylmorphine	81%	65%
Hydrocodone	92%	74%
Hydromorphone	84%	47%
Methadone	84%	72%
Morphine	92%	74%

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Oxycodone	92%	78%
Oxymorphone	78%	49%
Dissociative Drugs		
Phencyclidine	76%	83%

Figure 20. A table consisting of percentages regarding those who test for the drug as well as what percentage of those who test either meet or exceed the guideline recommendations for confirming drugs in blood.

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Cannabis

For **THC** at the recommended confirming cutoff of 1 ng/mL, 13% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 43% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 69% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 25% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 17% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carboxy-THC** at the recommended confirming cutoff of 5 ng/mL, 29% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 48% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 94% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 5% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 17% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **11-OH-THC** at the recommended confirming cutoff of 1 ng/mL, 8% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 76% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 11% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 51% of participants reported that they do not test for this drug. A total of 3% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Stimulants

For **Methamphetamine** at the recommended confirming cutoff of 20 ng/mL, 46% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 25% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test

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for this drug, a total of 80% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 17% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 3% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Amphetamine** at the recommended confirming cutoff of 20 ng/mL, 46% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 24% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 80% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 17% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDMA** at the recommended confirming cutoff of 20 ng/mL, 41% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 24% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 77% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 19% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDA** at the recommended confirming cutoff of 20 ng/mL, 41% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 24% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 80% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 16% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 13% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Cocaine** at the recommended confirming cutoff of 10 ng/mL, 19% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 43% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 70% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 27% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Benzoyllecgonine** at the recommended confirming cutoff of 50 ng/mL, 57% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 95% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 5% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Cocaethylene** at the recommended confirming cutoff of 10 ng/mL, 16% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 38% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 71% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 17% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Depressants

For **Alprazolam** at the recommended confirming cutoff of 10 ng/mL, 25% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 49% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 84% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 14% of participants reported not meeting the

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guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 3% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Clonazepam** at the recommended confirming cutoff of 10 ng/mL, 24% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 44% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 80% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 17% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **7-Aminoclonazepam** at the recommended confirming cutoff of 10 ng/mL, 24% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 35% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 80% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 14% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 22% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Diazepam** at the recommended confirming cutoff of 20 ng/mL, 46% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 21% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 75% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Nordiazepam** at the recommended confirming cutoff of 20 ng/mL, 46% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 21% of participants reported meeting the guideline recommendation

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by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 76% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 21% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Lorazepam** at the recommended confirming cutoff of 10 ng/mL, 24% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 87% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 59% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 11% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxazepam** at the recommended confirming cutoff of 20 ng/mL, 48% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 17% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 77% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 19% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Temazepam** at the recommended confirming cutoff of 20 ng/mL, 46% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 80% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 17% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Carisoprodol** at the recommended confirming cutoff of 500 ng/mL, 30% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 30% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 76% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 19% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 14% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Meprobamate** at the recommended confirming cutoff of 500 ng/mL, 30% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 73% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 21% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 16% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Zolpidem** at the recommended confirming cutoff of 10 ng/mL, 25% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 35% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 75% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 21% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 11% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Butalbital** at the recommended confirming cutoff of 500 ng/mL, 40% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 21% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 78% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 17% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 17%

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of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Phenobarbital** at the recommended confirming cutoff of 500 ng/mL, 38% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 78% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 17% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 17% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Narcotic Analgesics

For **Codeine** at the recommended confirming cutoff of 10 ng/mL, 29% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 37% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 72% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 25% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 3% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **6-Acetylmorphine** at the recommended confirming cutoff of 5 ng/mL, 25% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 65% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 29% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 13% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Hydrocodone** at the recommended confirming cutoff of 10 ng/mL, 27% of participants reported meeting the guideline recommendation by being below the recommended

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confirming cutoff. A total of 41% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 74% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 24% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Hydromorphone** at the recommended confirming cutoff of 5 ng/mL, 11% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 29% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 47% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 44% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 11% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Methadone** at the recommended confirming cutoff of 20 ng/mL, 33% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 72% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 24% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 11% of participants reported that they do not test for this drug. A total of 5% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Morphine** at the recommended confirming cutoff of 10 ng/mL, 25% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 43% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 74% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 24% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 2% of participants reported that

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they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxycodone** at the recommended confirming cutoff of 10 ng/mL, 27% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 44% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 78% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 21% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxymorphone** at the recommended confirming cutoff of 5 ng/mL, 13% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 25% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 49% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 40% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 16% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Dissociative Drugs

For **Phencyclidine** at the recommended confirming cutoff of 10 ng/mL, 27% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 37% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 83% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 13% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 17% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Overall, **Benzoylcegonine** was the most frequently reported (57%) drug in this set for meeting the guideline recommendation by being below the recommended confirming cutoff. **Lorazepam** was the most frequently reported (51%) drug in this set for meeting the guideline

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recommendation by being at the recommended confirming cutoff. **Hydromorphone** was the most frequently reported (44%) drug in this set for not meeting the guideline recommendation by being below the recommended confirming cutoff. No drug in this set that was reported as always being tested.

For drug analysis that does not currently meet the recommendations, please indicate the reasons (please check all that apply):

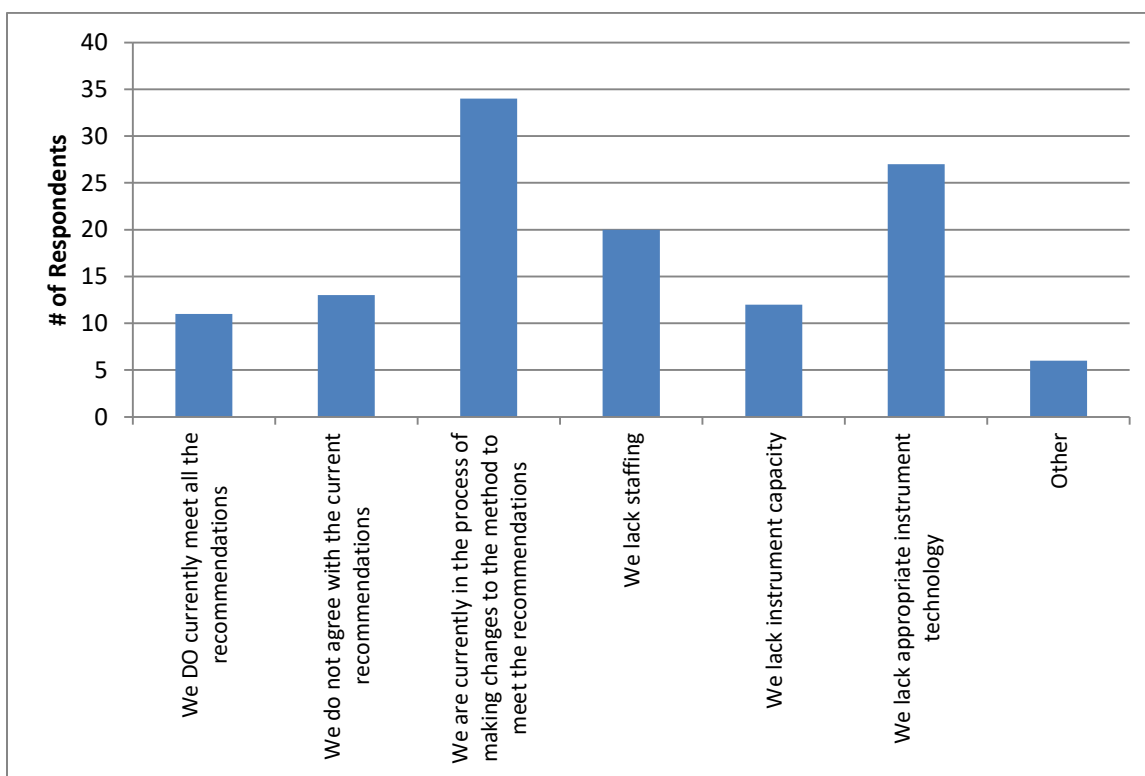


Figure 21. A bar graph representing the reasons participants do not currently meet the recommendations in blood samples (n = 66).

Sixty-six participants responded to this question. Multiple reasons could be selected by each participant. Eleven (17% of the participants) responses indicated that the participant does currently meet all the recommendations, thirteen (20% of the participants) responses indicated that the participant does not agree with the current recommendations, thirty-four (52% of the participants) responses indicated that the participant is currently in the process of making changes to the method to meet the recommendations, twenty (30% of the participants) responses indicated that the participant lacks staffing, twelve (18% of the participants) responses indicated that the participant lacks instrument capacity, and twenty-seven (41% of the participants) responses indicated that the participant lacks appropriate instrument technology (Figure 21).

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Respondents also had the ability to comment on other reasons for not meeting the recommendations for blood samples (six responses; 9% of the participants). Of the six respondents, one participant (17%) indicated that his/her laboratory lacks budget and/or time.

Of the six respondents, four participants (67%) indicated that their laboratory lacks a confirmational method and needs to outsource samples to other laboratories. One participant stated that although they outsource to another laboratory, they are developing an opioid quantitation method to include oxymorphone and hydromorphone. Another participant stated that most of the blood testing other than volatiles are outsourced.

Of the six respondents, one participant (17%) indicated that the recommended cutoffs are not relevant for his/her laboratory since they only perform post-mortem work.

Drug Analysis – URINE

Does your laboratory provide URINE drug analytical services (screen or confirmation) for DUID/traffic fatality samples?

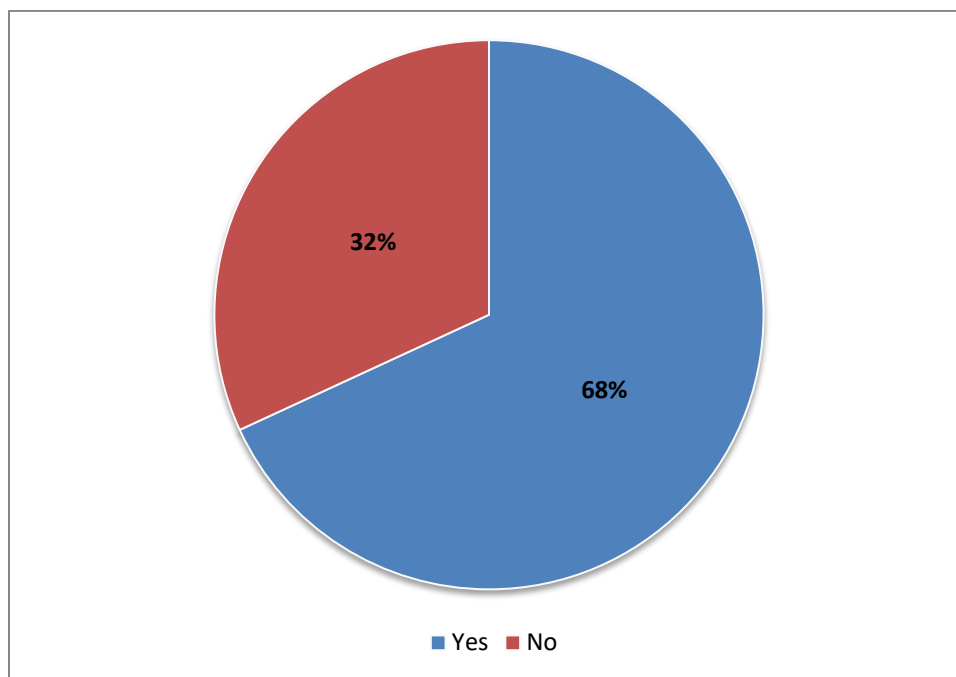


Figure 22. Pie graph representing whether the laboratories provide URINE sample analytical services (screening or confirmation) for DUID samples (n = 69).

Of the sixty-nine responses, a total of forty-seven respondents (68%) said that their laboratory provides urine sample analytical services (screening or confirmation) for DUID cases. A total of twenty-two respondents (32%) said that their laboratory does not provide urine sample analytical services (screening or confirmation) for DUID cases (Figure 22).

Are the drug testing services (drug menu and sensitivities) identical for DUID and traffic fatality cases?

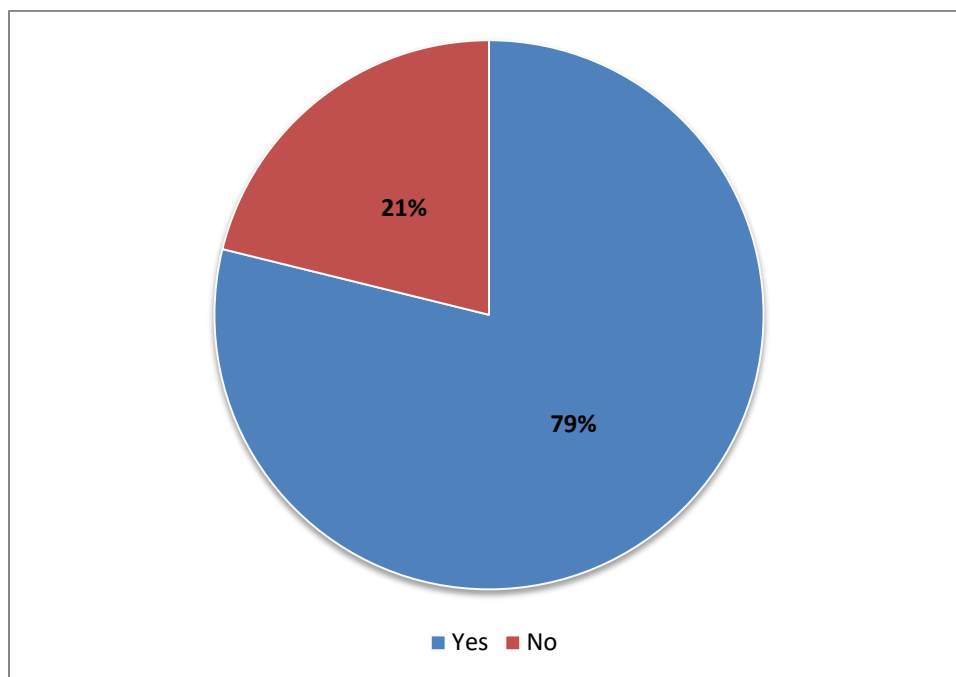


Figure 23. Pie graph representing whether the drug testing services (drug menu and sensitivities) are identical for DUID and traffic fatality cases (n = 52).

Of the fifty-two responses, the majority of the participants responded with “yes.” A total of forty-one out of fifty-two respondents (79%) said that their laboratory provides drug testing services (drug menu and sensitivities) identical for DUID and traffic fatality cases. A total of eleven out of fifty-two respondents (21%) said that their laboratory does not provide drug testing services (drug menu and sensitivities) identical for DUID and traffic fatality cases (Figure 23).

Drug Analysis – URINE – SCREENING Do you currently meet the guideline recommendations (given in parentheses) for SCREENING each of these drugs in URINE samples? (Graph Format)

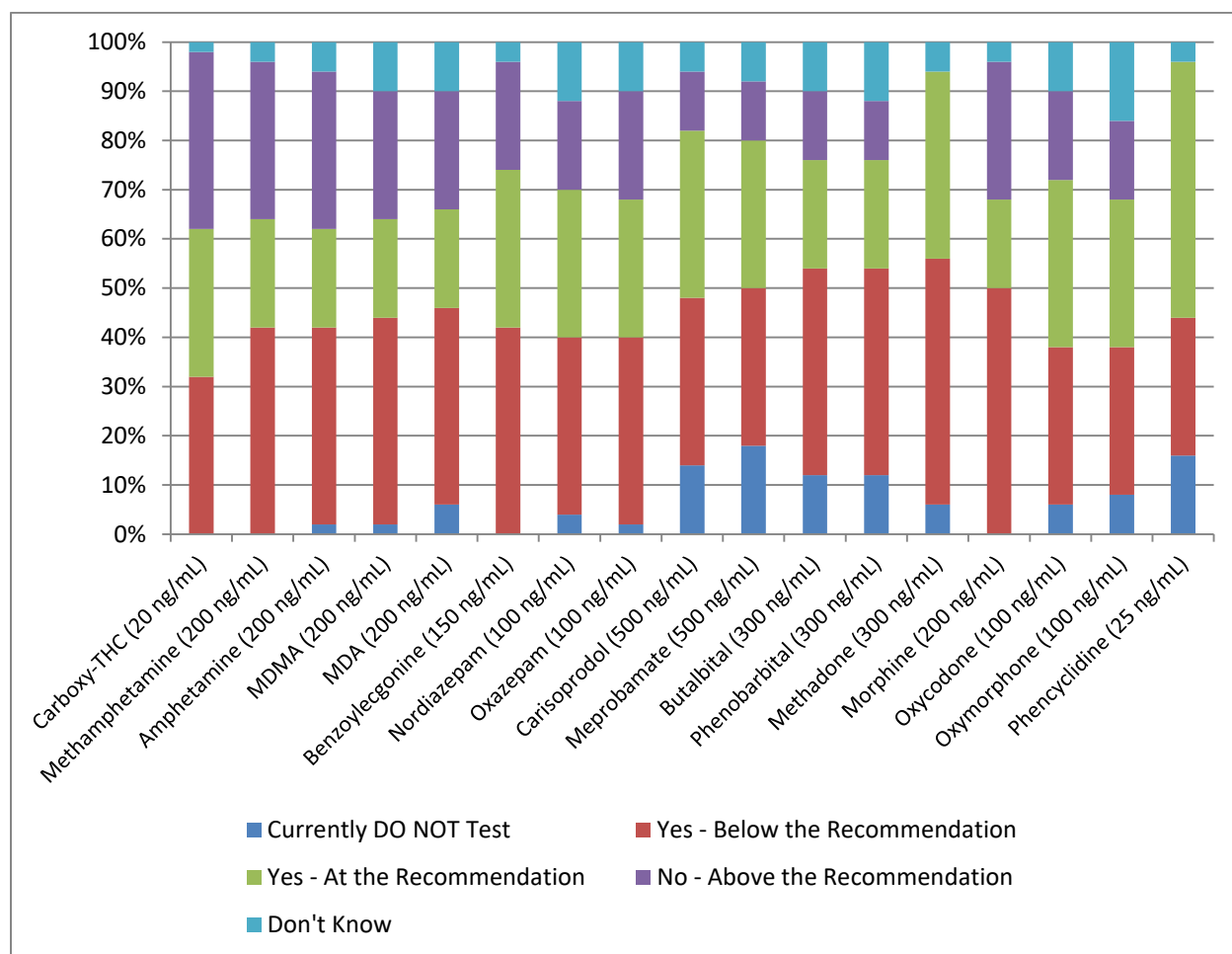


Figure 24. Bar graph representing whether or not laboratories meet the guideline recommendations for screening drugs in urine.

Drug Analysis – URINE – SCREENING Do you currently meet the guideline recommendations (given in parentheses) for SCREENING each of these drugs in URINE samples? (Table Format)

Drug	% of Respondents who test for this drug ("Total that Test")	% of Respondents that meet the recommendation/Total that Test
Cannabis		
Carboxy-THC	98%	63%
CNS Stimulants		
Methamphetamine	96%	67%
Amphetamine	92%	65%
MDMA	88%	70%
MDA	84%	71%
Benzoyllecgonine	96%	77%
CNS Depressants		
Nordiazepam	84%	79%
Oxazepam	88%	75%
Carisoprodol	80%	85%
Meprobamate	74%	84%
Butalbital	78%	82%
Phenobarbital	76%	84%
Narcotic Analgesics		
Methadone	88%	100%
Morphine	96%	71%
Oxycodone	84%	79%
Oxymorphone	76%	79%
Dissociative Drugs		
Phencyclidine	80%	100%

Figure 25. A table consisting of percentages regarding those who test for the drug as well as what percentage of those who test either meet or exceed the guideline recommendations for screening drugs in urine.

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Cannabis

For **Carboxy-THC** at the recommended screening cutoff of 20 ng/mL, 32% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 30% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 63% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 36% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Stimulants

For **Methamphetamine** at the recommended screening cutoff of 200 ng/mL, 42% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 67% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 32% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 4% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Amphetamine** at the recommended screening cutoff of 200 ng/mL, 40% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 20% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 65% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 32% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDMA** at the recommended screening cutoff of 200 ng/mL, 42% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 20% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a

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total of 70% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 26% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDA** at the recommended screening cutoff of 200 ng/mL, 40% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 20% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 71% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 24% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Benzoyllecgonine** at the recommended screening cutoff of 150 ng/mL, 42% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 32% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 77% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 4% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Depressants

For **Nordiazepam** at the recommended screening cutoff of 100 ng/mL, 36% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 30% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 79% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 18% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 4% of participants reported that they do not test for this drug. A total of 12% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Oxazepam** at the recommended screening cutoff of 100 ng/mL, 38% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 28% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 75% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carisoprodol** at the recommended screening cutoff of 500 ng/mL, 34% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 34% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 85% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 12% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 14% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Meprobamate** at the recommended screening cutoff of 500 ng/mL, 32% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 30% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 84% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 12% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 18% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Butalbital** at the recommended screening cutoff of 300 ng/mL, 42% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 82% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 14% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 12% of

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participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Phenobarbital** at the recommended screening cutoff of 300 ng/mL, 42% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 84% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 12% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 12% of participants reported that they do not test for this drug. A total of 12% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Narcotic Analgesics

For **Methadone** at the recommended screening cutoff of 300 ng/mL, 50% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 38% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Morphine** at the recommended screening cutoff of 200 ng/mL, 50% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 18% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 71% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 28% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 4% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxycodone** at the recommended screening cutoff of 100 ng/mL, 32% of participants reported meeting the guideline recommendation by being below the recommended screening

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cutoff. A total of 34% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 79% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 18% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxymorphone** at the recommended screening cutoff of 100 ng/mL, 30% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 30% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 79% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 16% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 16% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

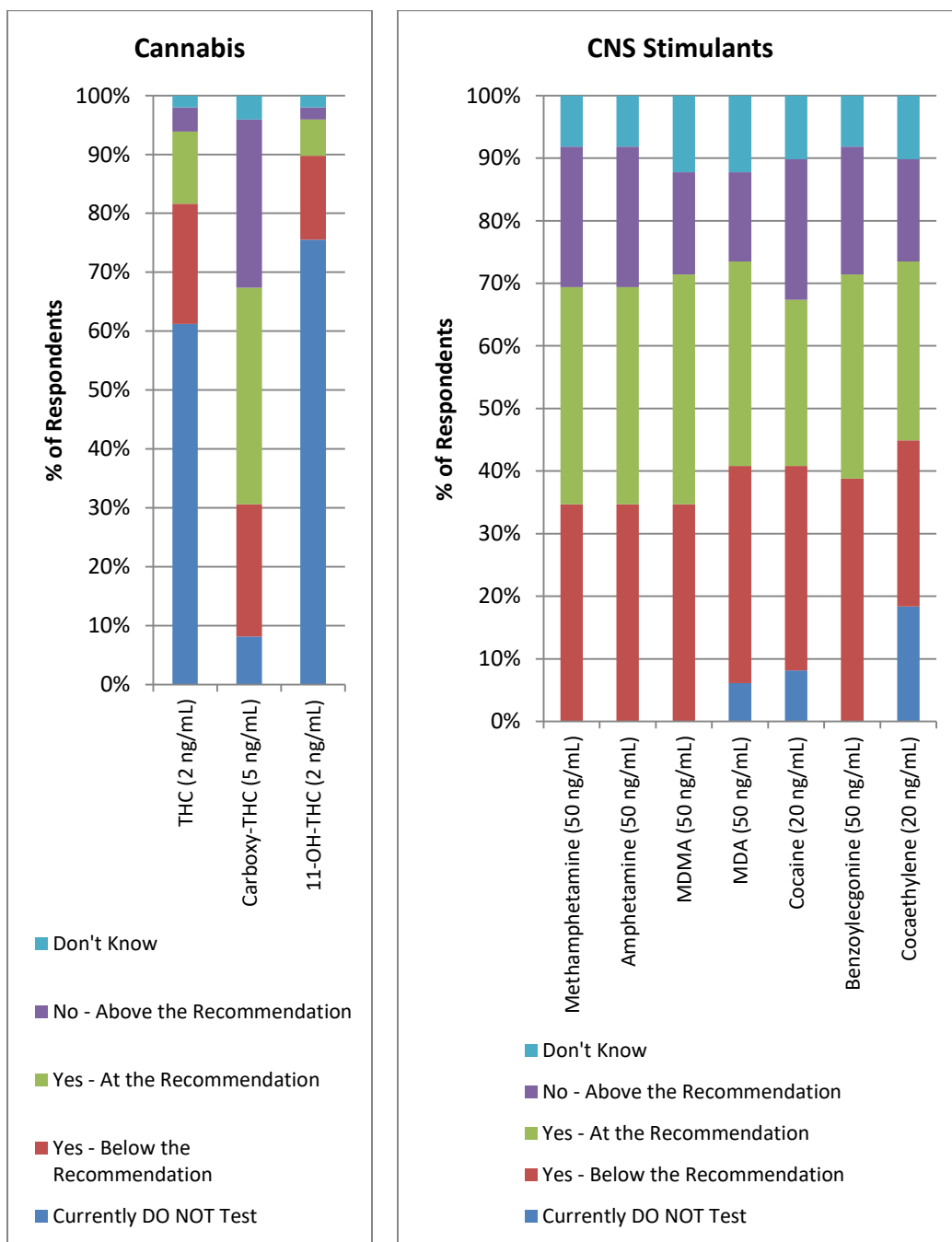
Dissociative Drugs

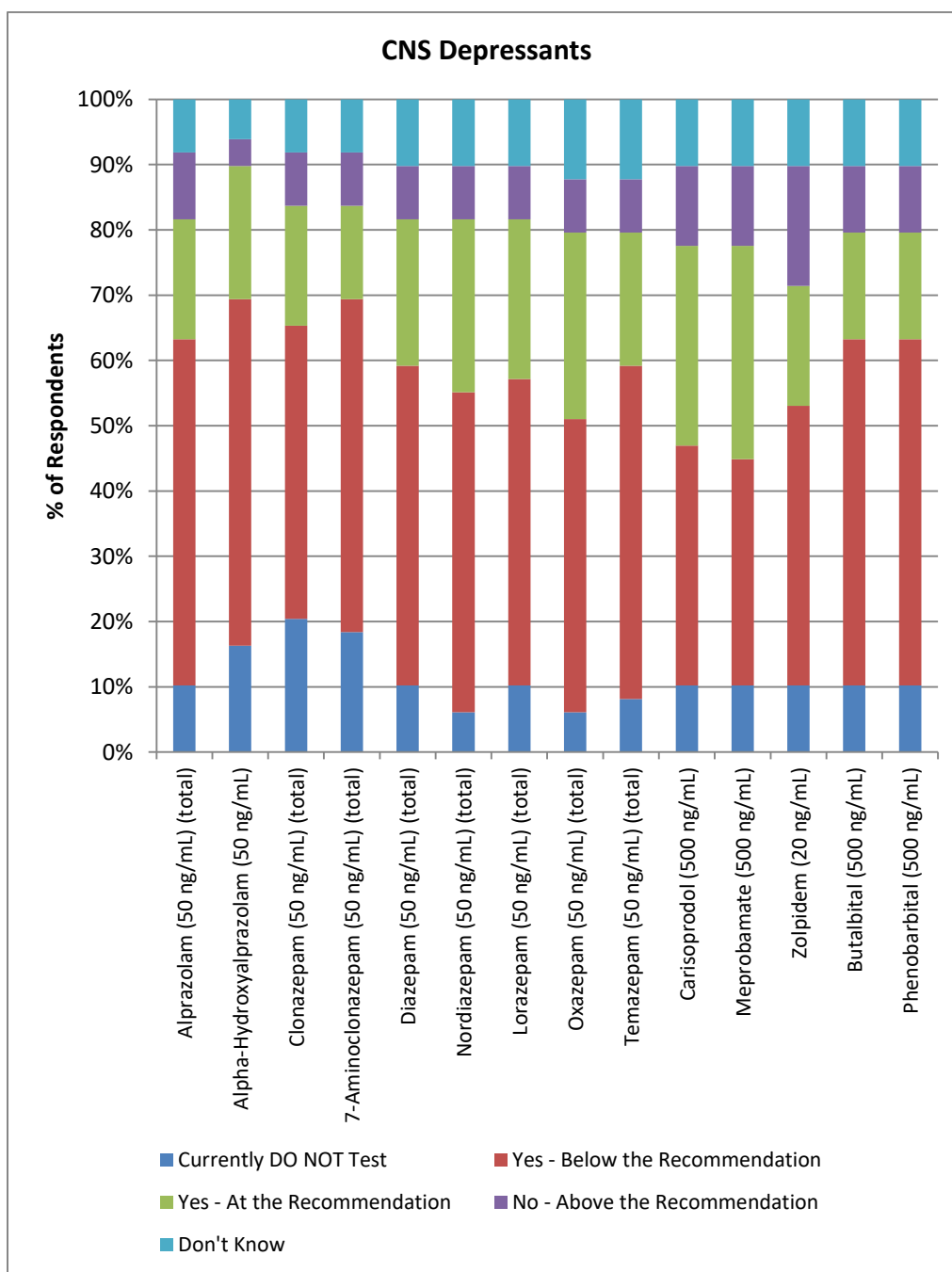
For **Phencyclidine** at the recommended screening cutoff of 25 ng/mL, 28% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 52% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 16% of participants reported that they do not test for this drug. A total of 4% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Overall, **Methadone** and **Morphine** were the most frequently reported (50%) drugs in this set for meeting the guideline recommendation by being below the recommended screening cutoff. **Phencyclidine** was the most frequently reported (52%) drug in this set for meeting the guideline recommendation by being at the recommended screening cutoff. **Carboxy-THC** was the most frequently reported (36%) drug in this set for not meeting the guideline recommendation by being below the recommended screening cutoff. No drug in this set was reported as always being tested.

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Drug Analysis – URINE – CONFIRMATION Do you currently meet the guideline recommendations (given in parentheses) for **CONFIRMING** each of these drugs in **URINE** samples? (Graph Format)





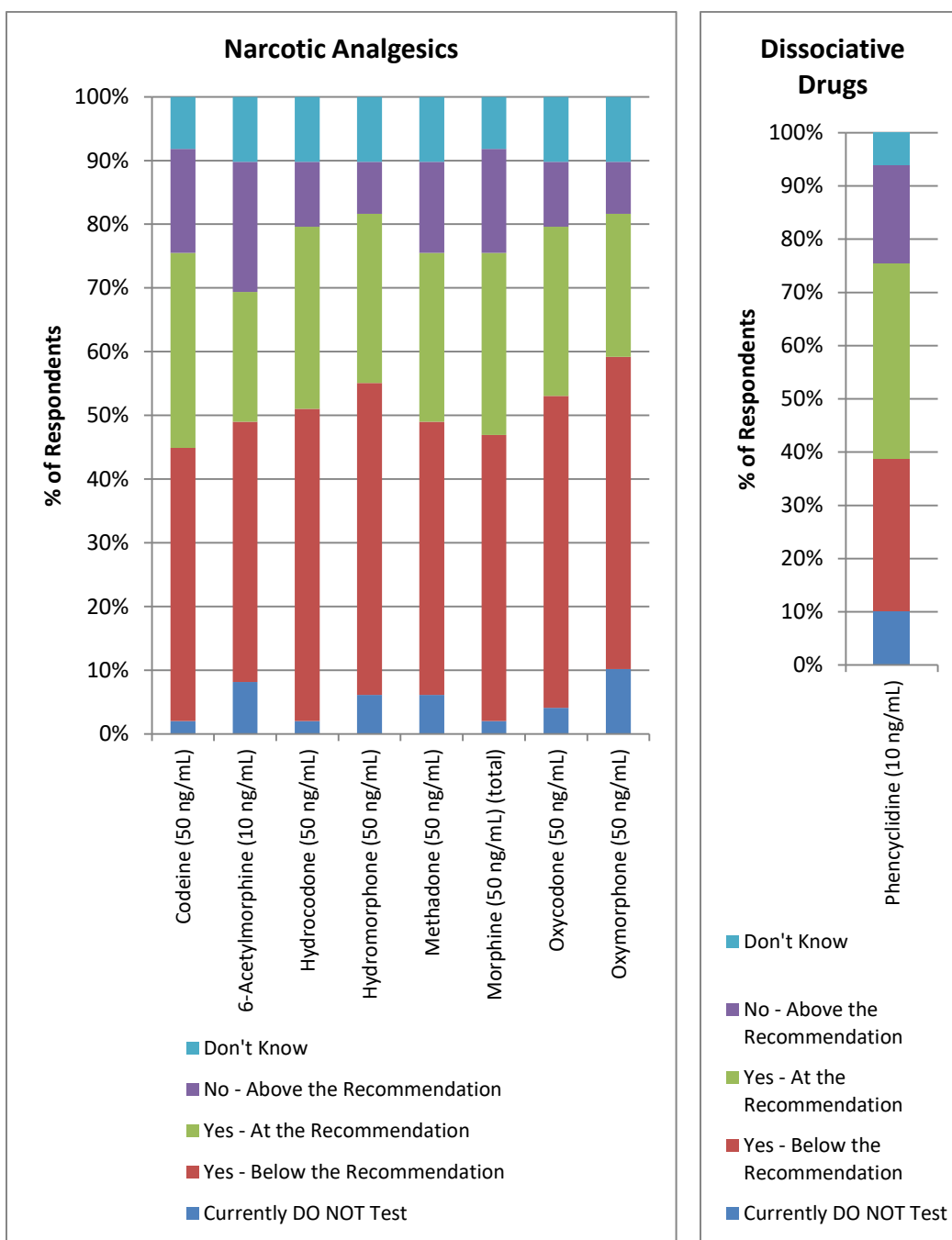


Figure 26. Bar graph representing whether or not laboratories meet the guideline recommendations for confirming drugs in urine.

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Drug Analysis – URINE – CONFIRMATION Do you currently meet the guideline recommendations (given in parentheses) for **CONFIRMING** each of these drugs in **BLOOD** samples? (Table Format)

Drug	% of Respondents who test for this drug ("Total that Test")	% of Respondents that meet the recommendation/Total that Test
Cannabis		
THC	37%	89%
Carboxy-THC	88%	67%
11-OH-THC	22%	91%
CNS Stimulants		
Methamphetamine	92%	76%
Amphetamine	92%	76%
MDMA	88%	81%
MDA	82%	83%
Cocaine	82%	73%
Benzoyllecgonine	92%	78%
Cocaethylene	71%	77%
CNS Depressants		
Alprazolam	82%	88%
Alpha-Hydroxyalprazolam	78%	95%
Clonazepam	71%	89%
7-Aminoclonazepam	73%	89%
Diazepam	80%	90%
Nordiazepam	84%	90%
Lorazepam	80%	90%
Oxazepam	82%	90%
Temazepam	80%	90%
Carisoprodol	80%	85%
Meprobamate	80%	85%
Zolpidem	80%	77%
Butalbital	80%	87%
Phenobarbital	80%	87%
Narcotic Analgesics		
Codeine	90%	82%
6-Acetylmorphine	82%	75%
Hydrocodone	88%	88%
Hydromorphone	84%	90%
Methadone	84%	83%

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Morphine	90%	82%
Oxycodone	86%	88%
Oxymorphone	80%	90%
Dissociative Drugs		
Phencyclidine	84%	78%

Figure 27. A table consisting of percentages regarding those who test for the drug as well as what percentage of those who test either meet or exceed the guideline recommendations for confirming drugs in urine.

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Cannabis

For **THC** at the recommended confirming cutoff of 2 ng/mL, 20% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 12% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 89% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 4% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 61% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carboxy-THC** at the recommended confirming cutoff of 5 ng/mL, 22% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 37% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 67% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 29% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 4% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **11-OH-THC** at the recommended confirming cutoff of 2 ng/mL, 14% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 6% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 91% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 2% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 76% of participants reported that they do not test for this drug. A total of 2% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Stimulants

For **Methamphetamine** at the recommended confirming cutoff of 50 ng/mL, 35% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 35% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test

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for this drug, a total of 76% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Amphetamine** at the recommended confirming cutoff of 50 ng/mL, 35% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 35% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 76% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDMA** at the recommended confirming cutoff of 50 ng/mL, 35% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 37% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 81% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 16% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 12% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDA** at the recommended confirming cutoff of 50 ng/mL, 35% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 33% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 83% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 14% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 12% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Cocaine** at the recommended confirming cutoff of 20 ng/mL, 33% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 73% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 22% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Benzoyllecgonine** at the recommended confirming cutoff of 50 ng/mL, 39% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 33% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 78% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 20% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Cocaethylene** at the recommended confirming cutoff of 20 ng/mL, 27% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 29% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 77% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 16% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 18% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Depressants

For **Alprazolam** at the recommended confirming cutoff of 50 ng/mL, 53% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 18% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 88% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 10% of participants reported not meeting the

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guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Alpha-hydroxyalprazolam** at the recommended confirming cutoff of 50 ng/mL, 54% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 20% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 95% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 4% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 16% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Clonazepam** at the recommended confirming cutoff of 50 ng/mL, 45% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 18% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 89% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 20% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **7-Aminoclonazepam** at the recommended confirming cutoff of 50 ng/mL, 51% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 14% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 89% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 18% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Diazepam** at the recommended confirming cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at

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the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Nordiazepam** at the recommended confirming cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Lorazepam** at the recommended confirming cutoff of 50 ng/mL, 47% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 24% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxazepam** at the recommended confirming cutoff of 50 ng/mL, 45% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 29% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 12% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Temazepam** at the recommended confirming cutoff of 50 ng/mL, 51% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 20% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 12% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carisoprodol** at the recommended confirming cutoff of 500 ng/mL, 37% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 31% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 85% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 12% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Meprobamate** at the recommended confirming cutoff of 500 ng/mL, 35% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 33% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 85% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 12% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Zolpidem** at the recommended confirming cutoff of 20 ng/mL, 43% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 18% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 77% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 18% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10%

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of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Butalbital** at the recommended confirming cutoff of 500 ng/mL, 53% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 16% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 87% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 10% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Phenobarbital** at the recommended confirming cutoff of 500 ng/mL, 53% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 16% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 87% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 10% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Narcotic Analgesics

For **Codeine** at the recommended confirming cutoff of 50 ng/mL, 43% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 31% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 82% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 16% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **6-Acetylmorphine** at the recommended confirming cutoff of 10 ng/mL, 41% of participants reported meeting the guideline recommendation by being below the recommended

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confirming cutoff. A total of 20% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 75% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 20% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 8% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Hydrocodone** at the recommended confirming cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 29% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 88% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 10% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Hydromorphone** at the recommended confirming cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Methadone** at the recommended confirming cutoff of 50 ng/mL, 43% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 83% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 14% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 6% of participants reported that they do not test for this drug. A total of 10% of participants reported

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that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Morphine** at the recommended confirming cutoff of 50 ng/mL, 45% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 29% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 82% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 16% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 2% of participants reported that they do not test for this drug. A total of 8% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxycodone** at the recommended confirming cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 27% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 88% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 10% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 4% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxymorphone** at the recommended confirming cutoff of 50 ng/mL, 49% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 22% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 90% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 8% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 10% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Dissociative Drugs

For **Phencyclidine** at the recommended confirming cutoff of 10 ng/mL, 29% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 37% of participants reported meeting the guideline recommendation

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by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 78% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 18% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 10% of participants reported that they do not test for this drug. A total of 6% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Overall, **Alprazolam**, **Alpha-Hydroxyalprazolam**, **Butalbital**, and **Phenobarbital** were the most frequently reported (53%) drugs in this set for meeting the guideline recommendation by being below the recommended confirming cutoff. **Carboxy-THC**, **MDMA**, and **Phencyclidine (PCP)** were the most frequently reported (37%) drugs in this set for meeting the guideline recommendation by being at the recommended confirming cutoff. **Carboxy-THC** was the most frequently reported (29%) drug in this set for not meeting the guideline recommendation by being below the recommended confirming cutoff. No drug in this set that was reported as always being tested.

For drug analysis which does not currently meet the recommendations, please indicate the reasons (please check all that apply):

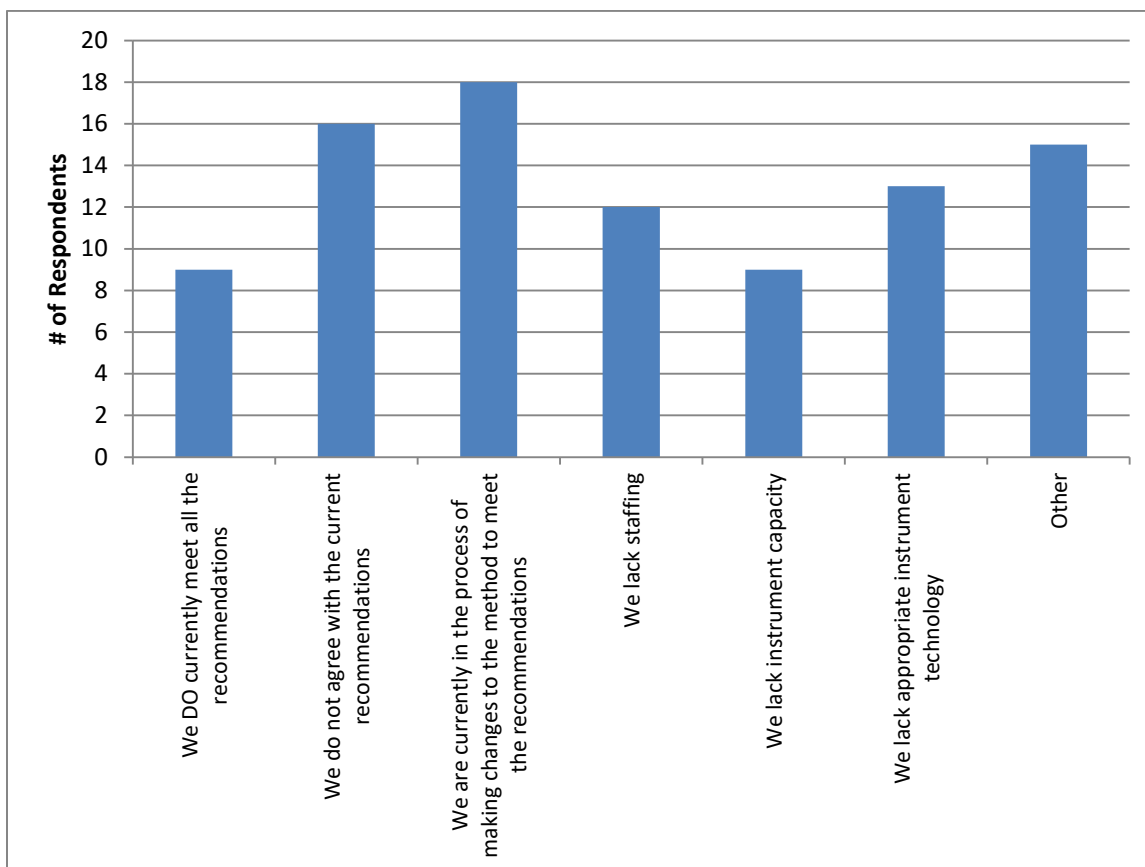


Figure 28. A bar graph representing the reasons participants do not currently meet the recommendations in urine samples (n = 50).

Fifty participants responded to this question. Multiple reasons could be selected by each participant. Nine (18% of the participants) responses indicated that the participant does currently meet all the recommendations, sixteen (32% of the participants) responses indicated that the participant does not agree with the current recommendations, eighteen (36% of the participants) responses indicated that the participant is currently in the process of making changes to the method to meet the recommendations, twelve (24% of the participants) responses indicated that the participant lacks staffing, nine (18% of the participants) responses indicated that the participant lacks instrument capacity, and thirteen (26% of the participants) responses indicated that the participant lacks appropriate instrument technology (Figure 28).

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Respondents also had the ability to comment on other reasons for not meeting the recommendations for urine samples (fifteen responses; 30% of the participants). Of the fifteen respondents, one participant (7%) indicated that his/her laboratory lacks budget and/or time.

Of the fifteen respondents, one participant (7%) indicated that his/her laboratory outsources samples to another laboratory. That participant stated that they do not perform DUID for law enforcement and have not adjusted any cutoffs yet. In addition, most are private or through the medical examiner's office and reported as preliminary before going to the state laboratory.

Of the fifteen respondents, one participant (7%) indicated that his/her laboratory faces method limitations. That participant stated that his/her laboratory's current focus is improving toxicology case turnaround times rather than meeting the current recommendations.

Of the fifteen respondents, nine participants (75%) indicated that their laboratory does not test urine samples and/or quantitate urine samples. One participant stated that greater than 98% of submitted DUI cases are blood, and the scope and recommended limit in urine DUI analysis is not his/her laboratory's current focus. Another participant stated that urine DUID samples are not submitted and quantitation is not performed on medical examiner samples. One participant stated that urine samples undergo only a basic CEDIA screen followed by GC/MS testing based on what is requested or indicative in CEDIA. In addition, no urine results are quantitated, and drugs are reported based on their presence and possessing sufficient structural elucidation. Another participant stated that his/her laboratory does not quantitate on confirmations of drugs in urine.

Of the fifteen responses, three participants (20%) indicated that their laboratory does not meet the current recommendations due to policy. One participant stated that state code has set some of the drug levels higher than the recommended amount. Another participant stated that state statutes are approximately two times higher. One participant stated that zolpidem is not included in DUI statutes.

Drug Analysis – ORAL FLUID

Does your laboratory provide testing for drugs in ORAL FLUID in DUID/traffic fatality cases?

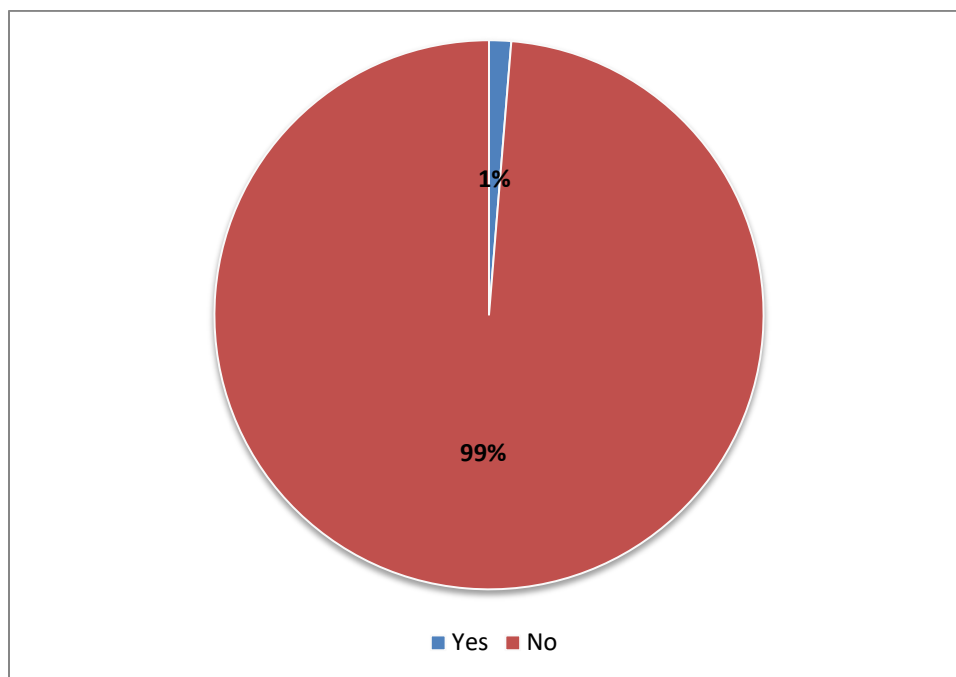
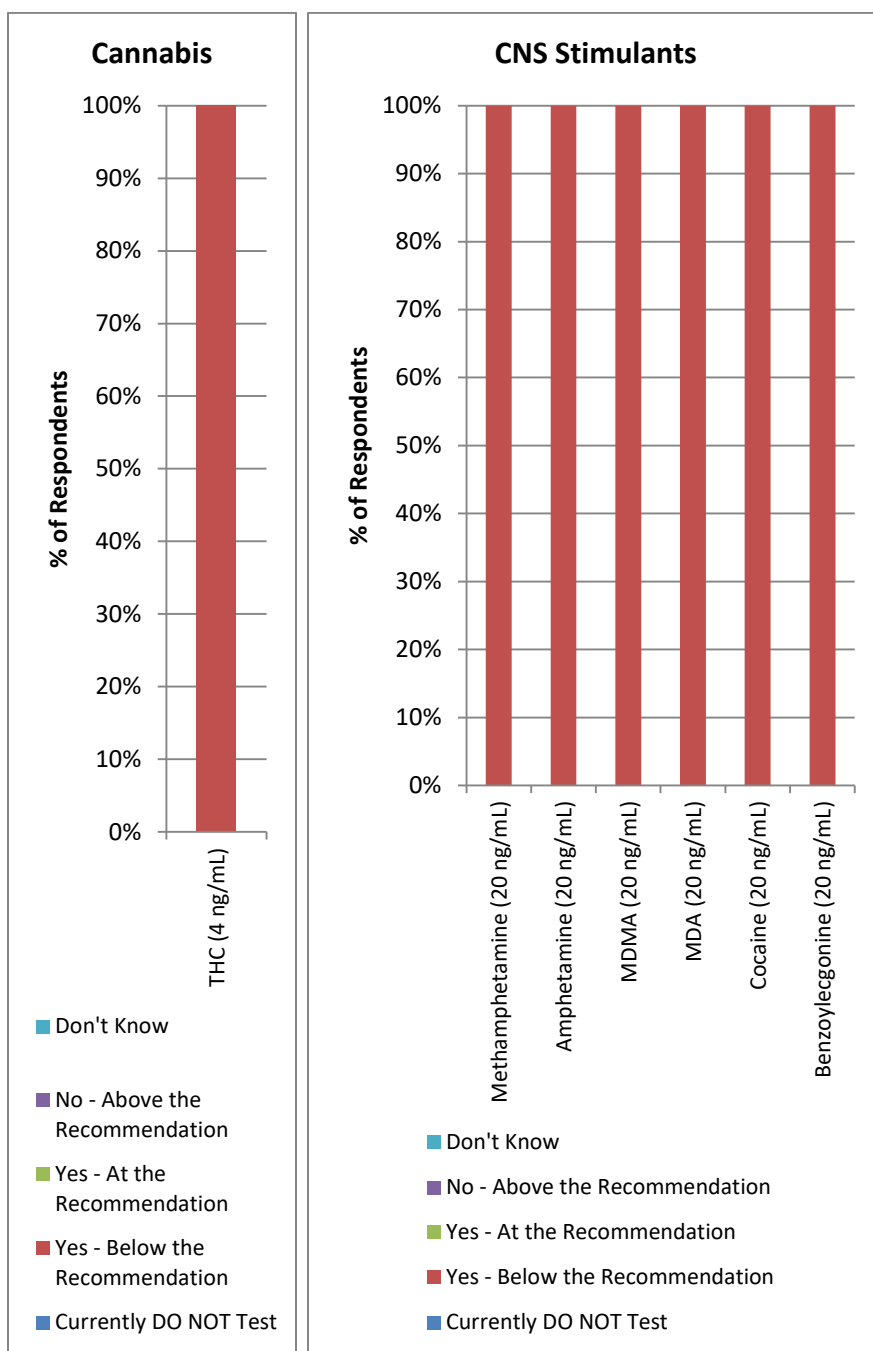


Figure 29. Pie graph representing whether the laboratories provide testing for drugs in ORAL FLUID samples in DUID/traffic fatality cases (n = 70).

Of the seventy responses, a total of one respondent (1%) said that his/her laboratory provides testing for drugs in oral fluid samples in DUID/traffic fatality cases. A total of sixty-nine respondents (99%) said that their laboratory does not provide testing for drugs in oral fluid samples in DUID/traffic fatality cases (Figure 29).

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Drug Analysis – ORAL FLUID – SCREENING Do you currently meet the guideline recommendations (given in parentheses) for **SCREENING** each of these drugs in **ORAL FLUID** samples? (Graph Format)



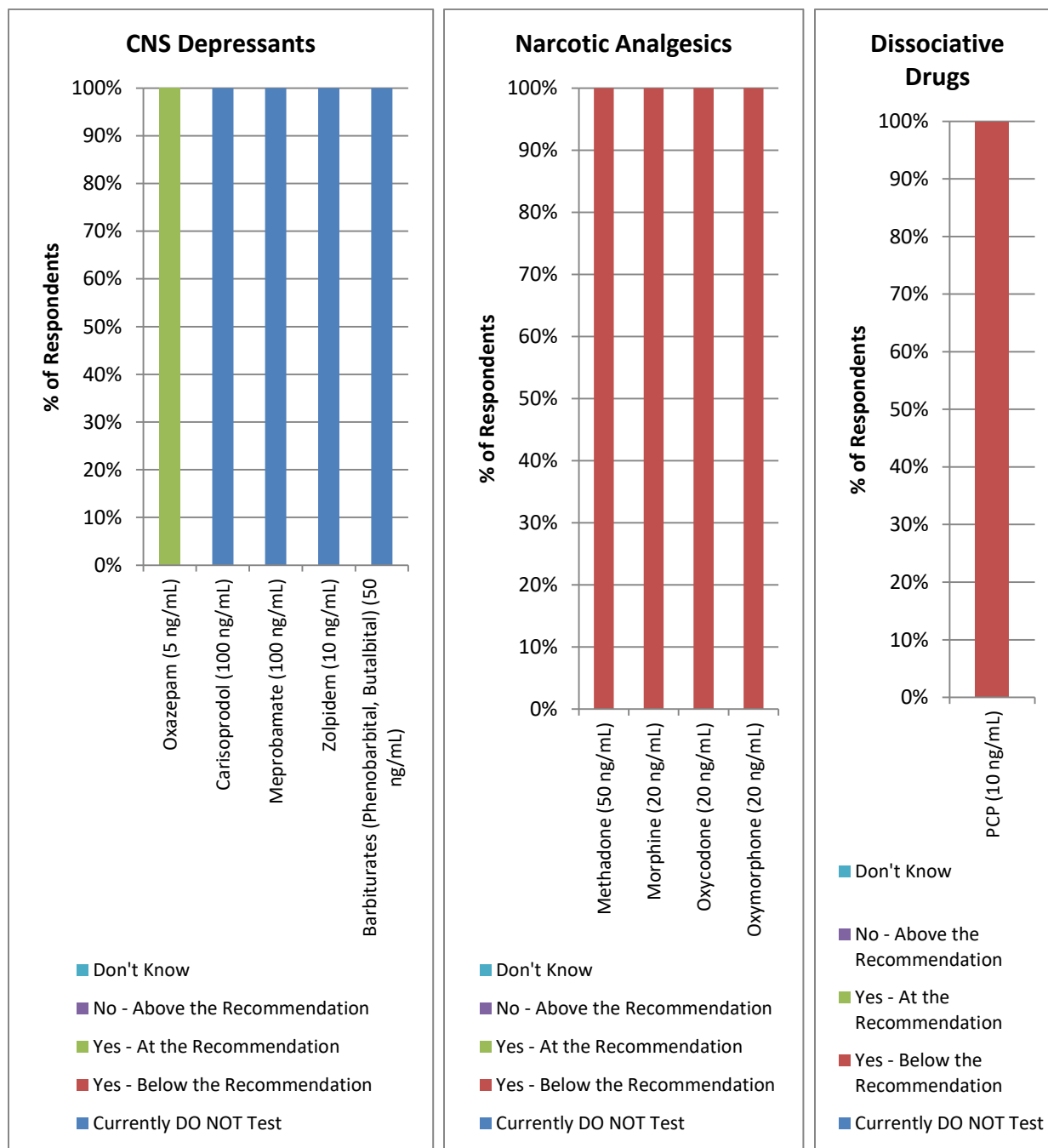


Figure 30. Bar graph representing whether or not laboratories meet the guideline recommendations for screening drugs in oral fluid.

Drug Analysis – ORAL FLUID – SCREENING Do you currently meet the guideline recommendations (given in parentheses) for SCREENING each of these drugs in ORAL FLUID samples? (Table Format)

Drug	% of Respondents who test for this drug ("Total that Test")	% of Respondents that meet the recommendation/Total that Test
Cannabis		
THC (4 ng/mL)	100%	100%
CNS Stimulants		
Methamphetamine (20 ng/mL)	100%	100%
Amphetamine (20 ng/mL)	100%	100%
MDMA (20 ng/mL)	100%	100%
MDA (20 ng/mL)	100%	100%
Cocaine (20 ng/mL)	100%	100%
Benzoyllecgonine (20 ng/mL)	100%	100%
CNS Depressants		
Oxazepam (5 ng/mL)	100%	100%
Carisoprodol (100 ng/mL)	0%	0%
Meprobamate (100 ng/mL)	0%	0%
Zolpidem (10 ng/mL)	0%	0%
Barbiturates (Phenobarbital, Butalbital) (50 ng/mL)	0%	0%
Narcotic Analgesics		
Methadone (50 ng/mL)	100%	100%
Morphine (20 ng/mL)	100%	100%
Oxycodone (20 ng/mL)	100%	100%
Oxymorphone (20 ng/mL)	100%	100%
Dissociative Drugs		
PCP (10 ng/mL)	100%	100%

Figure 31. A table consisting of percentages regarding those who test for the drug as well as what percentage of those who test either meet or exceed the guideline recommendations for screening drugs in oral fluid.

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Cannabis

For **THC** at the recommended screening cutoff of 4 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Stimulants

For **Methamphetamine** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Amphetamine** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDMA** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a

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total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDA** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Cocaine** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Benzoyllecgonine** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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CNS Depressants

For **Oxazepam** at the recommended screening cutoff of 5 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 100% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carisoprodol** at the recommended screening cutoff of 100 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Meprobamate** at the recommended screening cutoff of 100 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Zolpidem** at the recommended screening cutoff of 10 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline

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recommendation by being above the recommended screening cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Barbiturates (Phenobarbital, Butalbital)** at the recommended screening cutoff of 50 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Narcotic Analgesics

For **Methadone** at the recommended screening cutoff of 50 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Morphine** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Oxycodone** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxymorphone** at the recommended screening cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Dissociative Drugs

For **Phencyclidine** at the recommended screening cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended screening cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended screening cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended screening cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended screening cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Drug Analysis – ORAL FLUID – SCREENING for the following drugs that do not currently have recommended screening guidelines, do you currently provide **SCREENING** tests in **ORAL FLUID** samples? (Graph Format)

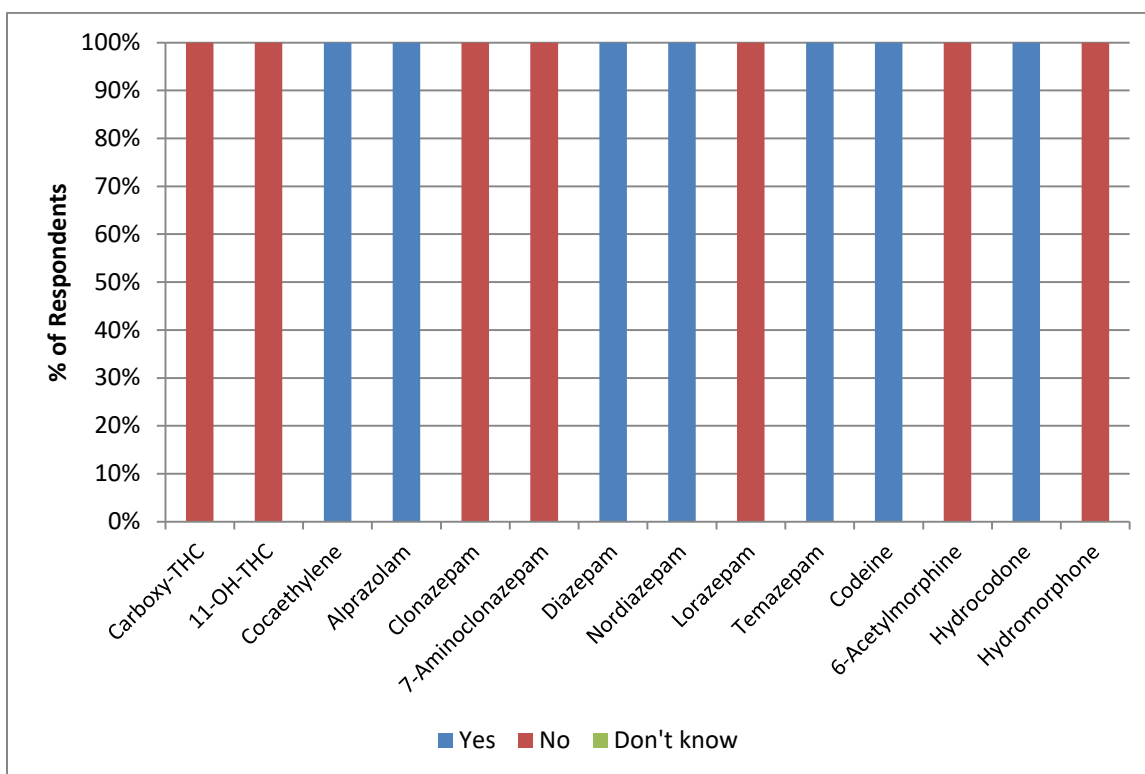


Figure 32. Bar graph representing whether or not laboratories provide screening tests for drugs without recommended screening guidelines in oral fluid.

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Drug Analysis – ORAL FLUID – SCREENING for the following drugs that do not currently have recommended screening guidelines, do you currently provide **SCREENING** tests in **ORAL FLUID** samples? (Table Format)

Drug	Yes - Provide screening tests in oral fluid samples	No - Provide screening tests in oral fluid samples	Don't know - Provide screening tests in oral fluid samples
Carboxy-THC	0%	100%	0%
11-OH-THC	0%	100%	0%
Cocaethylene	100%	0%	0%
Alprazolam	100%	0%	0%
Clonazepam	0%	100%	0%
7-Aminoclonazepam	0%	100%	0%
Diazepam	100%	0%	0%
Nordiazepam	100%	0%	0%
Lorazepam	0%	100%	0%
Temazepam	100%	0%	0%
Codeine	100%	0%	0%
6-Acetylmorphine	0%	100%	0%
Hydrocodone	100%	0%	0%
Hydromorphone	0%	100%	0%

Figure 33. A table consisting of percentages regarding those who provide screening tests for drugs without recommended screening guidelines in oral fluid.

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Cannabis

For **Carboxy-THC**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **11-Hydroxy-THC**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

CNS Stimulants

For **Cocaethylene**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

CNS Depressants

For **Alprazolam**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **Clonazepam**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **7-Aminoclonazepam**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **Diazepam**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **Nordiazepam**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid

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samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **Lorazepam**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **Temazepam**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

Narcotic Analgesics

For **Codeine**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

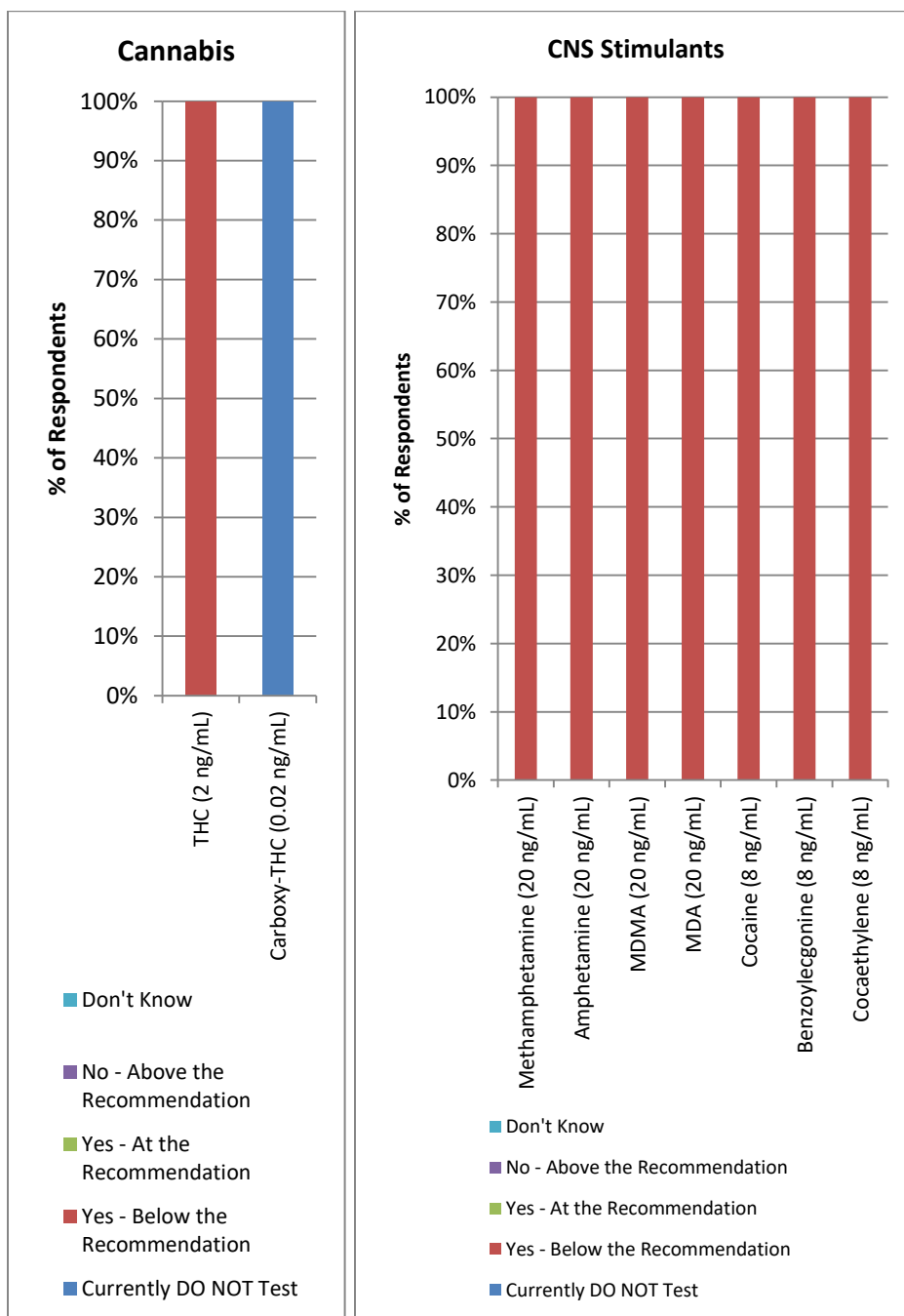
For **6-Acetylmorphine**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For **Hydrocodone**, 100% of participants reported providing screening tests in oral fluid samples. A total of 0% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

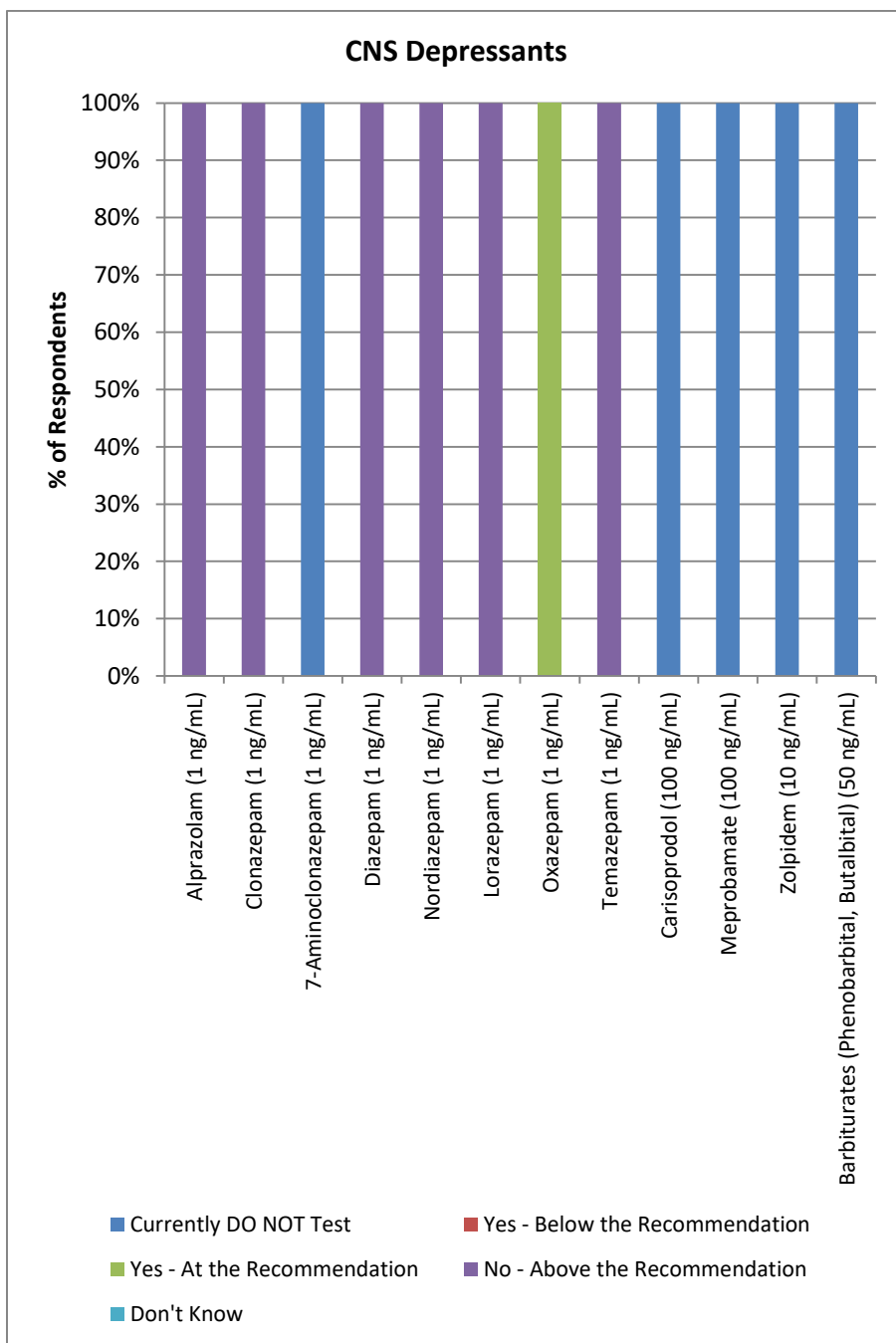
For **Hydromorphone**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

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Drug Analysis – ORAL FLUID – CONFIRMATION Do you currently meet the guideline recommendations (given in parentheses) for CONFIRMING each of these drugs in ORAL FLUID samples? (Graph Format)



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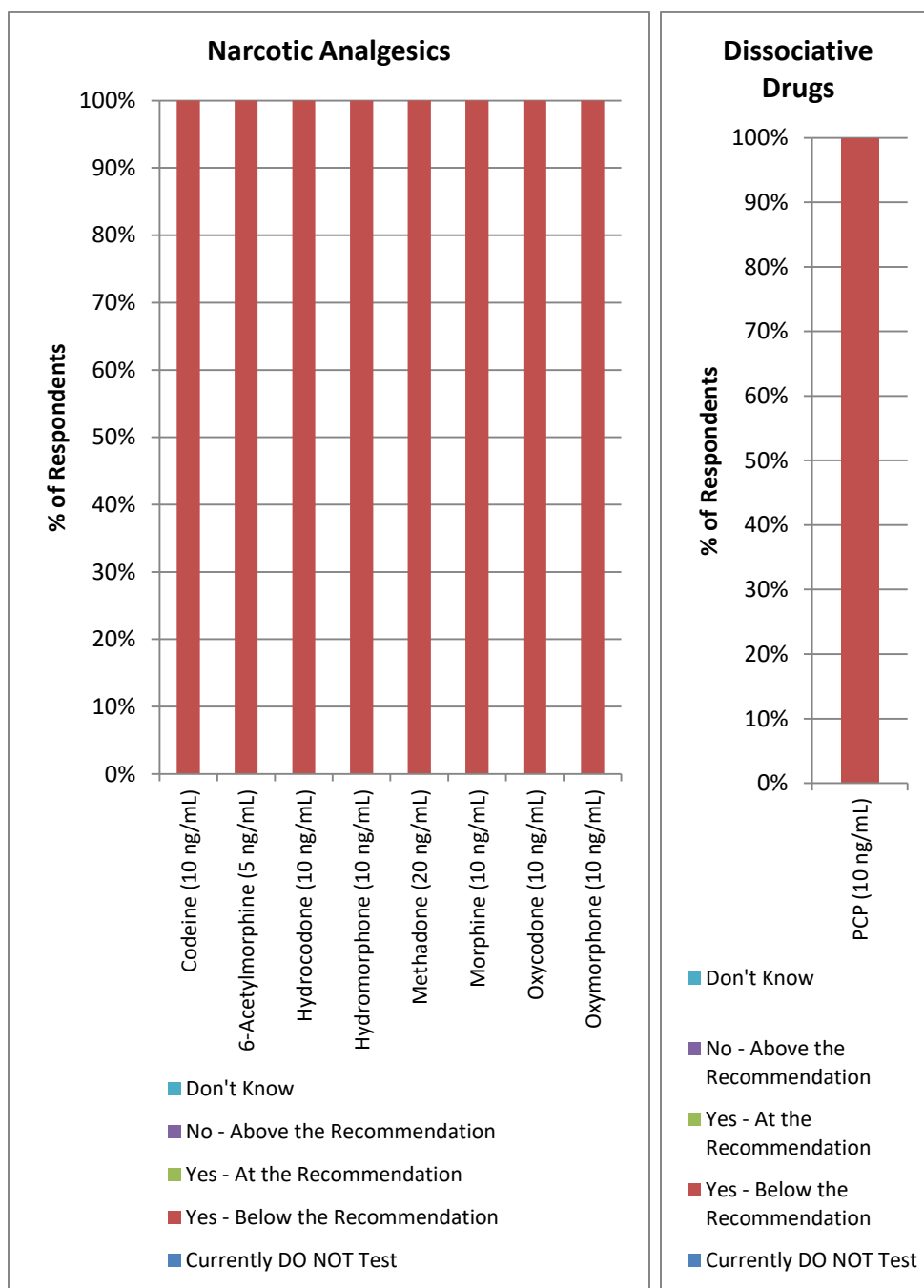


Figure 34. Bar graph representing whether or not laboratories meet the guideline recommendations for confirming drugs in oral fluid.

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Drug Analysis – ORAL FLUID – CONFIRMATION Do you currently meet the guideline recommendations (given in parentheses) for CONFIRMING each of these drugs in ORAL FLUID samples? (Table Format)

Drug	% of Respondents who test for this drug ("Total that Test")	% of Respondents that meet the recommendation/Total that Test
Cannabis		
THC (2 ng/mL)	100%	100%
Carboxy-THC (0.02 ng/mL)	0%	0%
CNS Stimulants		
Methamphetamine (20 ng/mL)	100%	100%
Amphetamine (20 ng/mL)	100%	100%
MDMA (20 ng/mL)	100%	100%
MDA (20 ng/mL)	100%	100%
Cocaine (8 ng/mL)	100%	100%
Benzoyllecgonine (8 ng/mL)	100%	100%
Cocaethylene (8 ng/mL)	100%	100%
CNS Depressants		
Alprazolam (1 ng/mL)	100%	0%
Clonazepam (1 ng/mL)	100%	0%
7-Aminoclonazepam (1 ng/mL)	0%	0%
Diazepam (1 ng/mL)	100%	0%
Nordiazepam (1 ng/mL)	100%	0%
Lorazepam (1 ng/mL)	100%	0%
Oxazepam (1 ng/mL)	100%	100%
Temazepam (1 ng/mL)	100%	0%
Carisoprodol (100 ng/mL)	0%	0%
Meprobamate (100 ng/mL)	0%	0%
Zolpidem (10 ng/mL)	0%	0%
Barbiturates (Phenobarbital, Butalbital) (50 ng/mL)	0%	0%
Narcotic Analgesics		
Codeine (10 ng/mL)	100%	100%
6-Acetylmorphine (5 ng/mL)	100%	100%
Hydrocodone (10 ng/mL)	100%	100%
Hydromorphone (10 ng/mL)	100%	100%
Methadone (20 ng/mL)	100%	100%
Morphine (10 ng/mL)	100%	100%
Oxycodone (10 ng/mL)	100%	100%
Oxymorphone (10 ng/mL)	100%	100%
Dissociative Drugs		

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PCP (10 ng/mL)	100%	100%
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Figure 35. A table consisting of percentages regarding those who test for the drug as well as what percentage of those who test either meet or exceed the guideline recommendations for confirming drugs in oral fluid.

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Cannabis

For **THC** at the recommended confirming cutoff of 2 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carboxy-THC** at the recommended confirming cutoff of 0.02 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Stimulants

For **Methamphetamine** at the recommended confirming cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Amphetamine** at the recommended confirming cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test

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for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDMA** at the recommended confirming cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **MDA** at the recommended confirming cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Cocaine** at the recommended confirming cutoff of 8 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Benzoyllecgonine** at the recommended confirming cutoff of 8 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Cocaethylene** at the recommended confirming cutoff of 8 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

CNS Depressants

For **Alprazolam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 100% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Clonazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 100% of participants reported not meeting the

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guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **7-Aminoclonazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Diazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 100% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Nordiazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 100% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Lorazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at

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the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 100% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 100% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Temazepam** at the recommended confirming cutoff of 1 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 100% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Carisoprodol** at the recommended confirming cutoff of 100 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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For **Meprobamate** at the recommended confirming cutoff of 100 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Zolpidem** at the recommended confirming cutoff of 10 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Barbiturates (Phenobarbital, Butalbital)** at the recommended confirming cutoff of 50 ng/mL, 0% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 0% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 100% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Narcotic Analgesics

For **Codeine** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline

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recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **6-Acetylmorphine** at the recommended confirming cutoff of 5 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Hydrocodone** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Hydromorphone** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Methadone** at the recommended confirming cutoff of 20 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation

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by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Morphine** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxycodone** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

For **Oxymorphone** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

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Dissociative Drugs

For **Phencyclidine** at the recommended confirming cutoff of 10 ng/mL, 100% of participants reported meeting the guideline recommendation by being below the recommended confirming cutoff. A total of 0% of participants reported meeting the guideline recommendation by being at the recommended confirming cutoff. Of the participants who reported that they test for this drug, a total of 100% reported meeting the guideline recommendation by being either below or at the recommended confirming cutoff. A total of 0% of participants reported not meeting the guideline recommendation by being above the recommended confirming cutoff. A total of 0% of participants reported that they do not test for this drug. A total of 0% of participants reported that they either do not know if they meet the guideline recommendation or did not respond to the question.

Drug Analysis – ORAL FLUID – CONFIRMATION For the following drugs that do not currently have recommended confirmation guidelines, do you currently provide **CONFIRMATION** tests for each of these drugs in **ORAL FLUID** samples? (Graph Format)

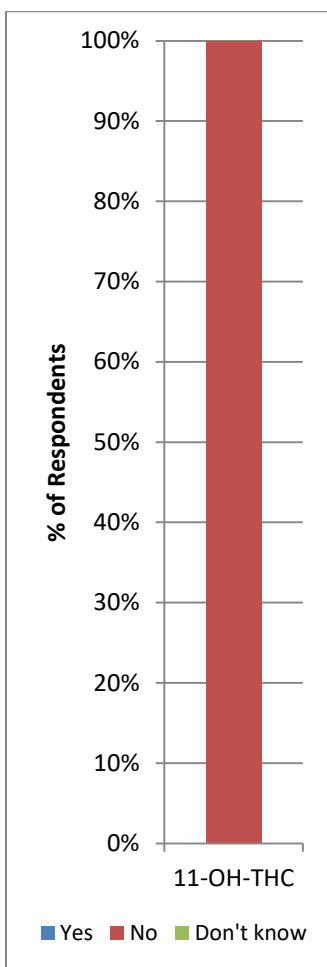


Figure 36. Bar graph representing whether or not laboratories provide confirmation tests for drugs without recommended confirmation guidelines in oral fluid.

Drug Analysis – ORAL FLUID – CONFIRMATION For the following drugs that do not currently have recommended confirmation guidelines, do you currently provide **CONFIRMATION** tests for each of these drugs in **ORAL FLUID** samples? (Table Format)

Drug	Yes - Provide screening tests in oral fluid samples	No - Provide screening tests in oral fluid samples	Don't know - Provide screening tests in oral fluid samples
11-OH-THC	0%	100%	0%

Figure 37. A table representing whether or not laboratories provide confirmation tests for drugs without recommended confirmation guidelines in oral fluid.

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Cannabis

For **11-Hydroxy-THC**, 0% of participants reported providing screening tests in oral fluid samples. A total of 100% of participants reported not providing screening tests in oral fluid samples. A total of 0% of participants reported not knowing if they provide screening tests in oral fluid.

For drugs that do not currently meet recommendations, please indicate the reasons (please check all that apply):

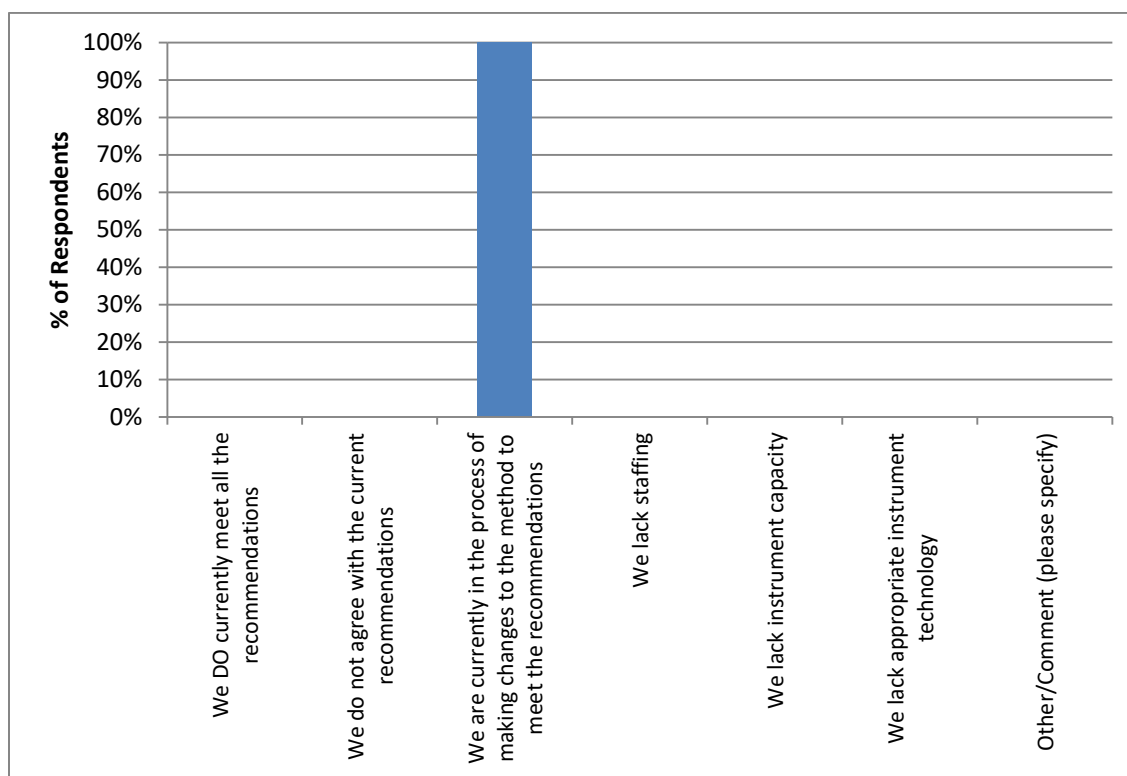


Figure 38. A bar graph representing the reasons participants do not currently meet the recommendations in oral fluid samples (n = 1).

One participant responded to this question. Multiple reasons could be selected by each participant. Zero (0% of the participants) responses indicated that the participant does currently meet all the recommendations, zero (0% of the participants) responses indicated that the participant does not agree with the current recommendations, one (1% of the participants) responses indicated that the participant is currently in the process of making changes to the method to meet the recommendations, zero (0% of the participants) responses indicated that the participant lacks staffing, zero (0% of the participants) responses indicated that the participant lacks instrument capacity, and zero (0% of the participants) responses indicated that the participant lacks appropriate instrument technology (Figure 38).

Laboratory Resources

Please indicate your laboratory's top THREE priorities for additional resources by ranking the following options (number 1-3; 1 = highest priority):

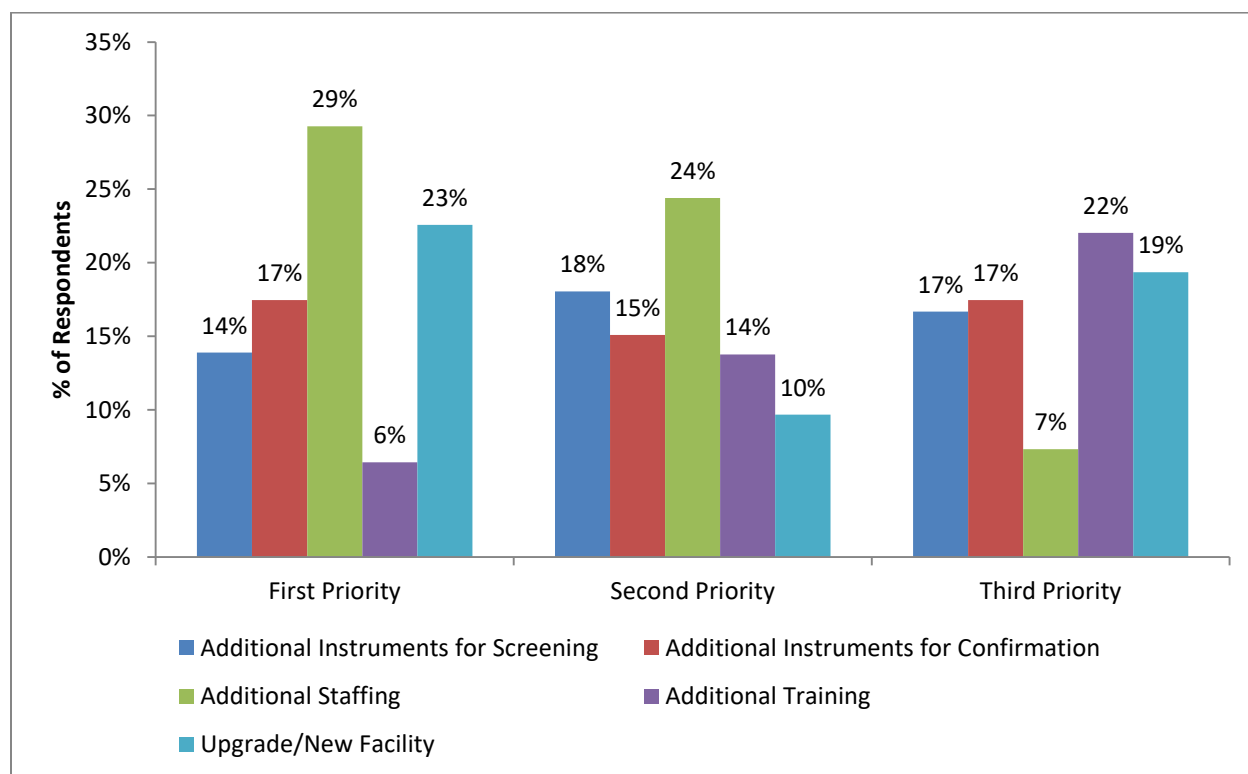


Figure 39. A bar graph representing the top three priorities for additional resources (n = 70).

Out of the seventy respondents to this question, 14% stated that their first priority is additional instruments for screening. A total of 17% stated that their first priority is additional instruments for confirmation. A total of 29% stated that their first priority is additional staffing. A total of 6% stated that their first priority is additional training. A total of 23% stated that their first priority is upgrade/new facility.

A total of 18% stated that their second priority is additional instruments for screening. A total of 15% stated that their second priority is additional instruments for confirmation. A total of 24% stated that their second priority is additional staffing. A total of 14% stated that their second priority is additional training. A total of 10% stated that their second priority is upgrade/new facility.

A total of 17% stated that their third priority is additional instruments for screening. A total of 17% stated that their third priority is additional instruments for confirmation. A total of 7% stated that their third priority is additional staffing. A total of 22% stated that their third

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priority is additional training. A total of 19% stated that their third priority is upgrade/new facility.

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What additional resources are a critical need for your laboratory?

Seventy respondents answered this question and multiple reasons were given in some of the responses. According to the free text responses, eleven responses indicated the need for budget and/or time, twenty-five responses indicated the need for instrumentation, four responses indicated the need for laboratory space, twenty responses indicated the need for staffing, one response indicated the need for an automation process, two responses indicated the need for reference materials, two responses indicated the need for help with troubleshooting, six responses indicated the need for method development, and six responses indicated the need for testimony and training.

Of the twenty-five participants who indicated the need for instrumentation, responses included the need for newer instrumentation to update outdated equipment and provide better analysis of compounds. Instruments specifically requested included a LC-MS/MS and/or a LC-TOF.

Of the four participants who indicated the need for laboratory space, responses included the need for more space for storage of evidence and a redesign of the laboratory for office space and/or new instrumentation.

Of the twenty participants who indicated the need for staffing, responses included the need for additional trained staff to handle the caseload received per year, hiring analysts who are or training analysts to be toxicologists rather than chemists or technicians who analyze biological samples, and more staff members to perform basic toxicology testing.

Of the one participant who indicated the need for an automation process, the response included the need for automation to minimize manual processes.

Of the two participants who indicated the need for reference materials, responses included the need for certified drug standards of emerging drugs and metabolites, and updated literary reference materials.

Of the two participants who indicated the need for help with troubleshooting, responses included the need for good toxicologists who can troubleshoot outdated instrumentation that break down easily, and help with statistics and error calculations.

Of the six participants who indicated the need for method development, responses included the need for more time to devote to method improvements and updates, and time for qualified analysts to perform method validation to improve the efficiency of older methods and bring new methods online.

Of the six participants who indicated the need for testimony and training, responses included the need for testimony training.

Toxicology Laboratory Survey

What are the greatest areas of need for training for your toxicology staff?

Seventy respondents answered this question and multiple reasons were given in some of the responses. According to the free text responses, seven responses indicated the need for pharmacology, eight responses indicated the need for general toxicology, nine responses indicated the need for method development and validation, thirty-one responses indicated the need for analytical/troubleshooting, eight responses indicated the need for interpretation, nine responses indicated the need for testimony, three responses indicated the need for funding and/or time, and five responses indicated the need for emerging analytes.

Of the seven participants who indicated the need for pharmacology, responses included the need for basic pharmacology.

Of the eight participants who indicated the need for general toxicology, responses included the need for basic toxicology for entry level staff, attendance of the Borkenstein DUID course at the end of their laboratory's in-house training program, and toxicology rules and regulations.

Of the nine participants who indicated the need for method development and validation, responses included the need for the training of analysts to develop as toxicologists to understand choice of specimen and proper ranges of measurement, development of new methods, training for how to carry out a validation, and research and development.

Of the thirty-one participants who indicated the need for analytical/troubleshooting, responses included the need for improved instrumentation with accurate mass and MS/MS capabilities, continuing education through attendance of meetings and training on high-resolution mass spectrometry, training on metabolism of different drugs, complex training that goes beyond basic knowledge, and training on instrument maintenance and analysis.

Of the eight participants who indicated the need for interpretation, responses included the need for interpretation of analytical results, interpretation of drugs of abuse as it pertains to impairment, and interpretation of results for testimony purposes.

Of the nine participants who indicated the need for testimony, responses included the need for drug toxicology and DUID interpretative testimony that properly incorporates DRE evidence into human performance casework and related testimony, testimony training through monthly mock trials with other laboratories rather than webinars or classroom sessions to decrease anxiety and concern faced by analysts while increasing knowledge and experience, expert testimony related to drug levels and impairment, and training for analysts to testify as

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medical toxicologists rather than forensic toxicologists in order to provide testimony regarding pharmacologic effects on individuals based on a qualitative or quantitative result.

Of the three participants who indicated the need for funding and/or time, responses included the need for time and funding to send analysts to additional training and meetings such as SOFT and AAFS.

Of the five participants who indicated the need for emerging analytes, responses included the need for emerging drug analysis.

Laboratory Turnaround Time

What is the approximate turnaround time of your laboratory in regards to ALCOHOL analysis?

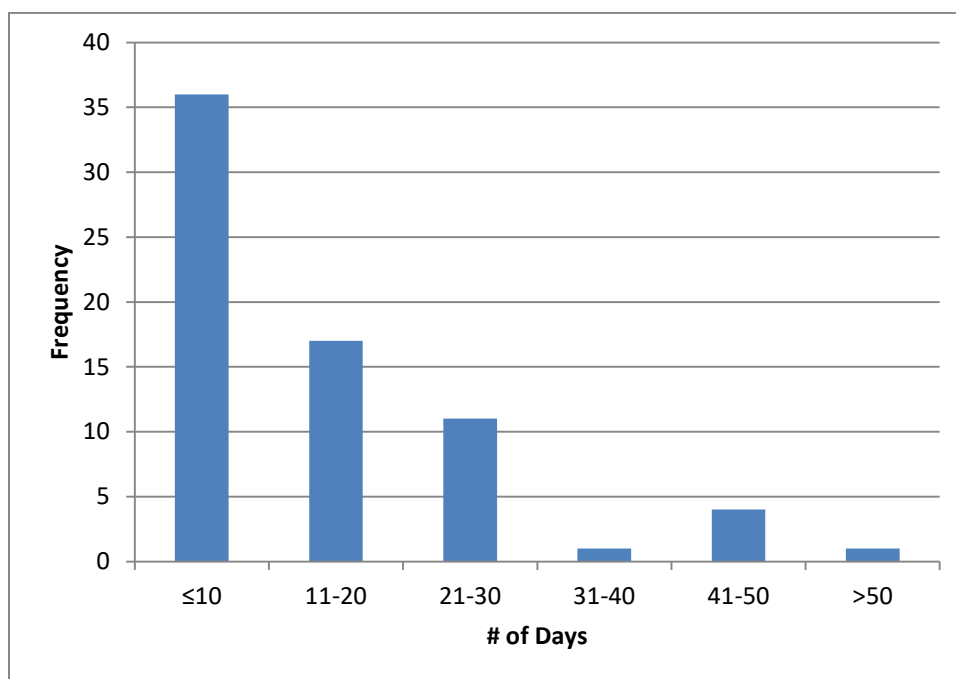


Figure 40. Histogram representing the approximate turnaround time of each laboratory in regards to alcohol analysis (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from zero to ninety days as the approximate turnaround time regarding alcohol analysis (Figure 40). Thirty-six respondents indicated their turnaround time for alcohol analysis was less than or equal to 10 days. Seventeen respondents indicated their turnaround time for alcohol analysis was between 11-20 days. Eleven respondents indicated their turnaround time for alcohol analysis was between 21-30 days. One respondent indicated his/her turnaround time for alcohol analysis was between 31-40 days. Four respondents indicated their turnaround time for alcohol analysis was between 41-50 days. One respondent indicated his/her turnaround time for alcohol analysis was greater than 50 days.

What is the approximate turnaround time of your laboratory in regards to DRUG analysis?

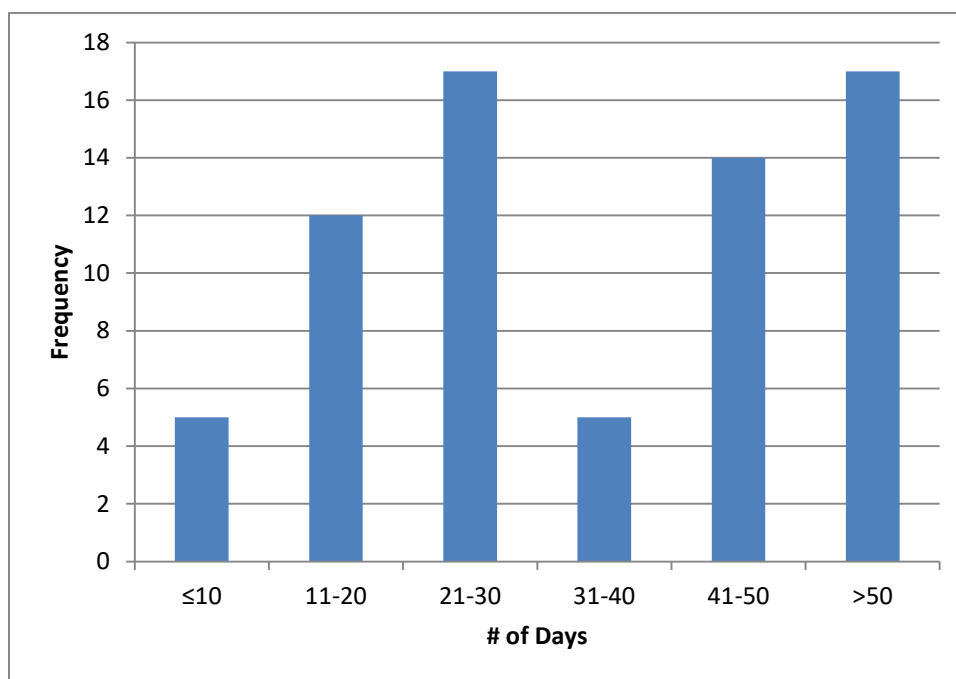


Figure 41. Histogram representing the approximate turnaround time of each laboratory in regards to drug analysis (n = 70).

Seventy toxicology laboratories are represented in the data. The distribution of data shows that responses range from two to five hundred and forty days as the approximate turnaround time regarding drug analysis (Figure 41). Five respondents indicated their turnaround time for drug analysis was less than or equal to 10 days. Twelve respondents indicated their turnaround time for drug analysis was between 11-20 days. Seventeen respondents indicated their turnaround time for drug analysis was between 21-30 days. Five respondents indicated their turnaround time for drug analysis was between 31-40 days. Fourteen respondents indicated their turnaround time for drug analysis was between 41-50 days. Seventeen respondents indicated their turnaround time for drug analysis was greater than 50 days.

Final Comments

Do you outsource any confirmatory testing in any fluid for Tier I drugs?

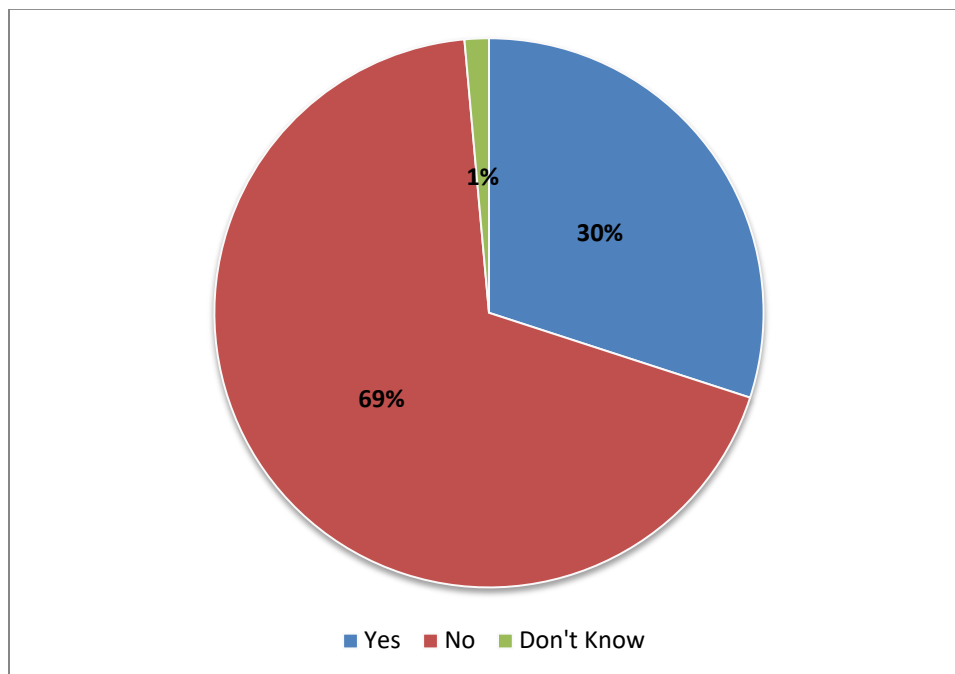


Figure 42. Pie graph representing whether the laboratories currently outsource any confirmatory testing in any fluid for Tier I drugs (n = 70).

Of the seventy responses, the majority of the participants responded with “no.” A total of twenty-one out of seventy respondents (30%) said that their laboratory outsources confirmatory testing in any fluid for Tier I drugs. A total of forty-eight out of seventy respondents (69%) said that their laboratory does not outsource any confirmatory testing in any fluid for Tier I drugs. A total of one out of seventy respondents (1%) said that he/she does not know if his/her laboratory outsources any confirmatory testing in any fluid for Tier I drugs (Figure 42).

Respondents also had the ability to comment on other reasons for outsourcing confirmatory testing in any fluid for Tier I drugs (twenty-one responses; 30% of the participants). Reasons for outsourcing included a lack of staffing, a lack of instrument technology, outside of scope, and backlog.

Do you currently test for any Tier II compounds?

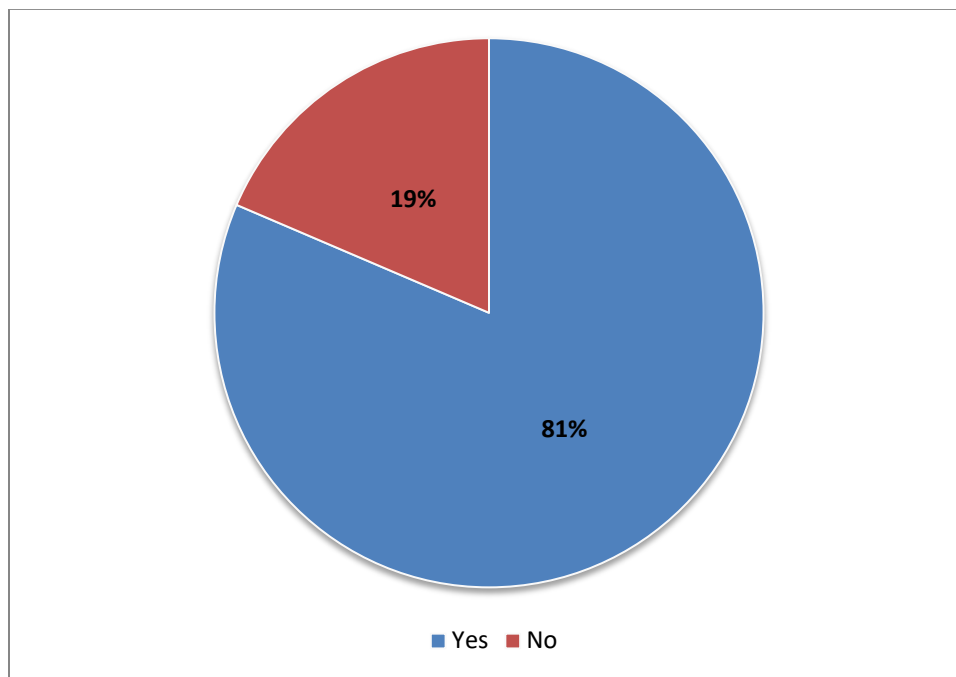


Figure 43. Pie graph representing whether the laboratories currently test for any Tier II compounds (n = 70).

Of the seventy responses, the majority of the participants responded with “yes.” A total of fifty-seven out of seventy respondents (81%) said that their laboratory currently tests for Tier II compounds. A total of thirteen out of seventy respondents (19%) said that their laboratory does not currently test for any Tier II compounds (Figure 43).

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If you test for Tier II compounds, which ones are routinely tested? (Graph Format)

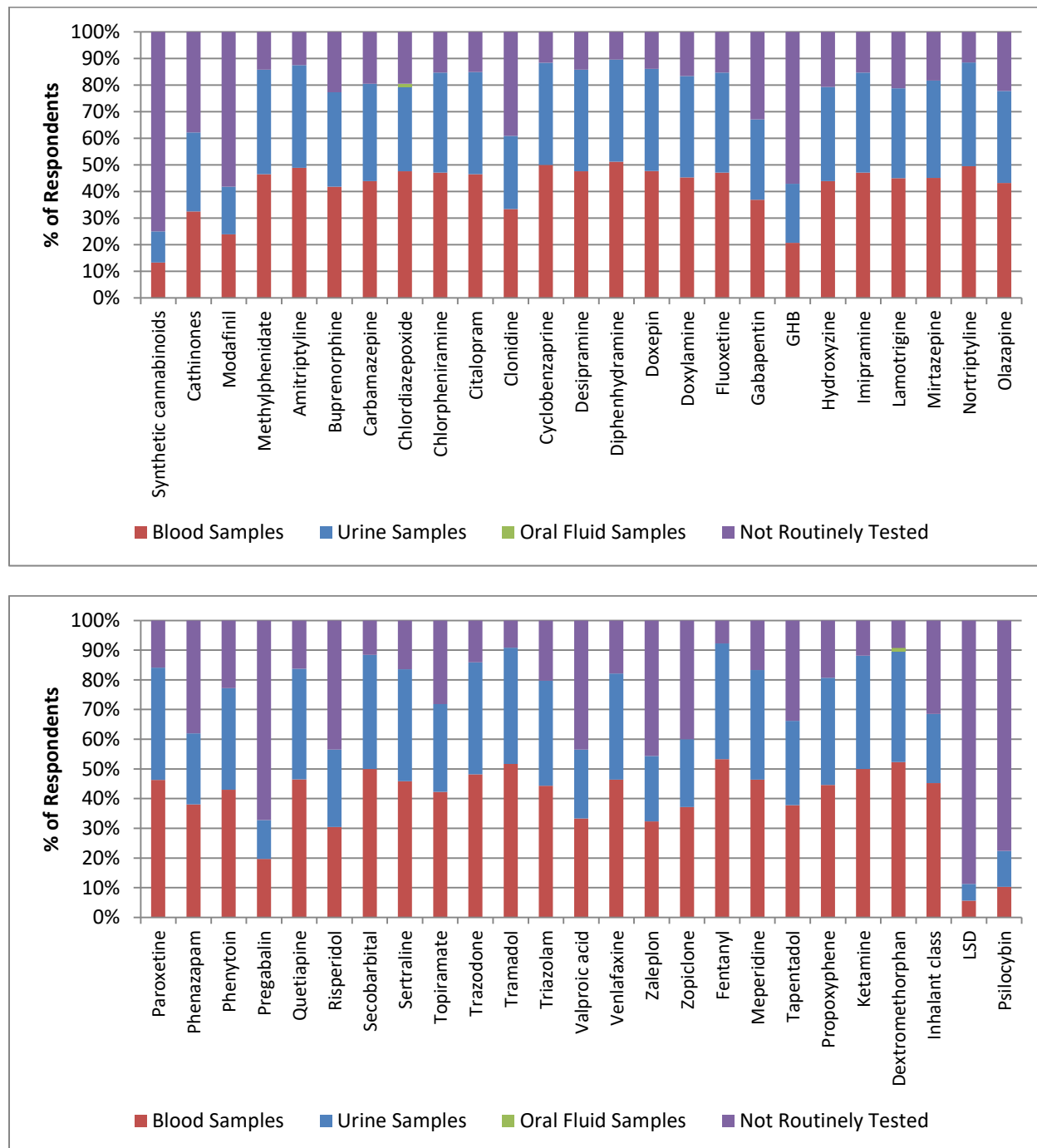


Figure 44. Bar graph representing the percentages regarding those who routinely test for Tier II compounds as well as those who test either in blood, urine, and/or oral fluid samples, or do not routinely test for a specific Tier II compound.

Toxicology Laboratory Survey

If you test for Tier II compounds, which ones are routinely tested? (Table Format)

Drug	Blood Samples	Urine Samples	Oral Fluid Samples	Not Routinely Tested
Synthetic cannabinoids	13%	12%	0%	75%
Cathinones	32%	30%	0%	38%
Modafinil	24%	18%	0%	58%
Methylphenidate	46%	39%	0%	14%
Amitriptyline	49%	39%	0%	13%
Buprenorphine	42%	35%	0%	23%
Carbamazepine	44%	37%	0%	20%
Clordiazepoxide	48%	32%	1%	20%
Chlorpheniramine	47%	38%	0%	15%
Citalopram	47%	38%	0%	15%
Clonidine	33%	28%	0%	39%
Cyclobenzaprine	50%	38%	0%	12%
Desipramine	48%	38%	0%	14%
Diphenhydramine	51%	38%	0%	10%
Doxepin	48%	38%	0%	14%
Doxylamine	45%	38%	0%	17%
Fluoxetine	47%	38%	0%	15%
Gabapentin	37%	30%	0%	33%
GHB	21%	22%	0%	57%
Hydroxyzine	44%	35%	0%	21%
Imipramine	47%	38%	0%	15%
Lamotrigine	45%	34%	0%	21%
Mirtazapine	45%	37%	0%	18%
Nortriptyline	49%	39%	0%	11%
Olanzapine	43%	35%	0%	22%
Paroxetine	46%	38%	0%	16%
Phenazepam	38%	24%	0%	38%
Phenytoin	43%	34%	0%	23%
Pregabalin	20%	13%	0%	67%
Quetiapine	47%	37%	0%	16%
Risperdal	30%	26%	0%	43%
Secobarbital	50%	38%	0%	12%
Sertraline	46%	38%	0%	16%
Topiramate	42%	29%	0%	28%
Trazodone	48%	38%	0%	14%

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Tramadol	52%	39%	0%	9%
Triazolam	44%	35%	0%	20%
Valproic acid	33%	23%	0%	43%
Venlafaxine	46%	36%	0%	18%
Zaleplon	32%	22%	0%	46%
Zopiclone	37%	23%	0%	40%
Fentanyl	53%	39%	0%	8%
Meperidine	46%	37%	0%	17%
Tapentadol	38%	28%	0%	34%
Propoxyphene	45%	36%	0%	19%
Ketamine	50%	38%	0%	12%
Dextromethorphan	52%	37%	1%	9%
Inhalant class	45%	23%	0%	32%
LSD	6%	6%	0%	89%
Psilocybin	10%	12%	0%	78%

Figure 45. A table consisting of percentages regarding those who routinely test for Tier II compounds as well as what percentage of those who test either in blood, urine, or oral fluid samples, or do not routinely test for a specific Tier II compound.

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Cannabis

For **Synthetic cannabinoids** currently listed as a Tier II compound, 13% of participants reported routinely testing for the compound in blood samples. A total of 12% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 75% of participants reported that they do not routinely test for this drug.

CNS Stimulants

For **Cathinones** currently listed as a Tier II compound, 32% of participants reported routinely testing for the compound in blood samples. A total of 30% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 38% of participants reported that they do not routinely test for this drug.

For **Modafinil** currently listed as a Tier II compound, 24% of participants reported routinely testing for the compound in blood samples. A total of 18% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 58% of participants reported that they do not routinely test for this drug.

For **Methylphenidate** currently listed as a Tier II compound, 46% of participants reported routinely testing for the compound in blood samples. A total of 39% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 14% of participants reported that they do not routinely test for this drug.

CNS Depressants

For **Amitriptyline** currently listed as a Tier II compound, 49% of participants reported routinely testing for the compound in blood samples. A total of 39% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 13% of participants reported that they do not routinely test for this drug.

For **Buprenorphine** currently listed as a Tier II compound, 42% of participants reported routinely testing for the compound in blood samples. A total of 35% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 23% of participants reported that they do not routinely test for this drug.

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For **Carbamazepine** currently listed as a Tier II compound, 44% of participants reported routinely testing for the compound in blood samples. A total of 37% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 20% of participants reported that they do not routinely test for this drug.

For **Clordiazepoxide** currently listed as a Tier II compound, 48% of participants reported routinely testing for the compound in blood samples. A total of 32% of participants reported routinely testing for the compound in urine samples. A total of 1% of participants reported routinely testing for the compound in oral fluid samples. A total of 20% of participants reported that they do not routinely test for this drug.

For **Chlorpheniramine** currently listed as a Tier II compound, 47% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 15% of participants reported that they do not routinely test for this drug.

For **Citalopram** currently listed as a Tier II compound, 47% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 15% of participants reported that they do not routinely test for this drug.

For **Clonidine** currently listed as a Tier II compound, 33% of participants reported routinely testing for the compound in blood samples. A total of 28% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 39% of participants reported that they do not routinely test for this drug.

For **Cyclobenzaprine** currently listed as a Tier II compound, 50% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 12% of participants reported that they do not routinely test for this drug.

For **Desipramine** currently listed as a Tier II compound, 48% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 14% of participants reported that they do not routinely test for this drug.

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For **Diphenhydramine** currently listed as a Tier II compound, 51% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 10% of participants reported that they do not routinely test for this drug.

For **Doxepin** currently listed as a Tier II compound, 48% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 14% of participants reported that they do not routinely test for this drug.

For **Doxylamine** currently listed as a Tier II compound, 45% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 17% of participants reported that they do not routinely test for this drug.

For **Fluoxetine** currently listed as a Tier II compound, 47% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 15% of participants reported that they do not routinely test for this drug.

For **Gabapentin** currently listed as a Tier II compound, 37% of participants reported routinely testing for the compound in blood samples. A total of 30% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 33% of participants reported that they do not routinely test for this drug.

For **GHB** currently listed as a Tier II compound, 21% of participants reported routinely testing for the compound in blood samples. A total of 22% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 57% of participants reported that they do not routinely test for this drug.

For **Hydroxyzine** currently listed as a Tier II compound, 44% of participants reported routinely testing for the compound in blood samples. A total of 35% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 21% of participants reported that they do not routinely test for this drug.

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For **Imipramine** currently listed as a Tier II compound, 47% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 15% of participants reported that they do not routinely test for this drug.

For **Lamotrigine** currently listed as a Tier II compound, 45% of participants reported routinely testing for the compound in blood samples. A total of 34% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 21% of participants reported that they do not routinely test for this drug.

For **Mirtazapine** currently listed as a Tier II compound, 45% of participants reported routinely testing for the compound in blood samples. A total of 37% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 18% of participants reported that they do not routinely test for this drug.

For **Nortriptyline** currently listed as a Tier II compound, 49% of participants reported routinely testing for the compound in blood samples. A total of 39% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 11% of participants reported that they do not routinely test for this drug.

For **Olanzapine** currently listed as a Tier II compound, 43% of participants reported routinely testing for the compound in blood samples. A total of 35% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 22% of participants reported that they do not routinely test for this drug.

For **Paroxetine** currently listed as a Tier II compound, 46% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 16% of participants reported that they do not routinely test for this drug.

For **Phenazepam** currently listed as a Tier II compound, 38% of participants reported routinely testing for the compound in blood samples. A total of 24% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 38% of participants reported that they do not routinely test for this drug.

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For **Phenytoin** currently listed as a Tier II compound, 43% of participants reported routinely testing for the compound in blood samples. A total of 34% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 23% of participants reported that they do not routinely test for this drug.

For **Pregabalin** currently listed as a Tier II compound, 20% of participants reported routinely testing for the compound in blood samples. A total of 13% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 67% of participants reported that they do not routinely test for this drug.

For **Quetiapine** currently listed as a Tier II compound, 47% of participants reported routinely testing for the compound in blood samples. A total of 37% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 16% of participants reported that they do not routinely test for this drug.

For **Risperdal** currently listed as a Tier II compound, 30% of participants reported routinely testing for the compound in blood samples. A total of 26% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 43% of participants reported that they do not routinely test for this drug.

For **Secobarbital** currently listed as a Tier II compound, 50% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 12% of participants reported that they do not routinely test for this drug.

For **Sertraline** currently listed as a Tier II compound, 46% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 16% of participants reported that they do not routinely test for this drug.

For **Topiramate** currently listed as a Tier II compound, 42% of participants reported routinely testing for the compound in blood samples. A total of 29% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 28% of participants reported that they do not routinely test for this drug.

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For **Trazodone** currently listed as a Tier II compound, 48% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 14% of participants reported that they do not routinely test for this drug.

For **Tramadol** currently listed as a Tier II compound, 52% of participants reported routinely testing for the compound in blood samples. A total of 39% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 9% of participants reported that they do not routinely test for this drug.

For **Triazolam** currently listed as a Tier II compound, 44% of participants reported routinely testing for the compound in blood samples. A total of 35% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 20% of participants reported that they do not routinely test for this drug.

For **Valproic acid** currently listed as a Tier II compound, 33% of participants reported routinely testing for the compound in blood samples. A total of 23% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 43% of participants reported that they do not routinely test for this drug.

For **Venlafaxine** currently listed as a Tier II compound, 46% of participants reported routinely testing for the compound in blood samples. A total of 36% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 18% of participants reported that they do not routinely test for this drug.

For **Zaleplon** currently listed as a Tier II compound, 32% of participants reported routinely testing for the compound in blood samples. A total of 22% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 46% of participants reported that they do not routinely test for this drug.

For **Zopiclone** currently listed as a Tier II compound, 37% of participants reported routinely testing for the compound in blood samples. A total of 23% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 40% of participants reported that they do not routinely test for this drug.

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Narcotic Analgesics

For **Fentanyl** currently listed as a Tier II compound, 53% of participants reported routinely testing for the compound in blood samples. A total of 39% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 8% of participants reported that they do not routinely test for this drug.

For **Meperidine** currently listed as a Tier II compound, 46% of participants reported routinely testing for the compound in blood samples. A total of 37% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 17% of participants reported that they do not routinely test for this drug.

For **Tapentadol** currently listed as a Tier II compound, 38% of participants reported routinely testing for the compound in blood samples. A total of 28% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 34% of participants reported that they do not routinely test for this drug.

For **Propoxyphene** currently listed as a Tier II compound, 45% of participants reported routinely testing for the compound in blood samples. A total of 36% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 19% of participants reported that they do not routinely test for this drug.

Dissociative Drugs

For **Ketamine** currently listed as a Tier II compound, 50% of participants reported routinely testing for the compound in blood samples. A total of 38% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 12% of participants reported that they do not routinely test for this drug.

For **Dextromethorphan** currently listed as a Tier II compound, 52% of participants reported routinely testing for the compound in blood samples. A total of 37% of participants reported routinely testing for the compound in urine samples. A total of 1% of participants reported routinely testing for the compound in oral fluid samples. A total of 9% of participants reported that they do not routinely test for this drug.

For **Inhalant class** currently listed as a Tier II compound, 45% of participants reported routinely testing for the compound in blood samples. A total of 23% of participants reported

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routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 32% of participants reported that they do not routinely test for this drug.

For **LSD** currently listed as a Tier II compound, 6% of participants reported routinely testing for the compound in blood samples. A total of 6% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 89% of participants reported that they do not routinely test for this drug.

For **Psilocybin** currently listed as a Tier II compound, 10% of participants reported routinely testing for the compound in blood samples. A total of 12% of participants reported routinely testing for the compound in urine samples. A total of 0% of participants reported routinely testing for the compound in oral fluid samples. A total of 78% of participants reported that they do not routinely test for this drug.

Are there any Tier II compounds that are tested for by special request?

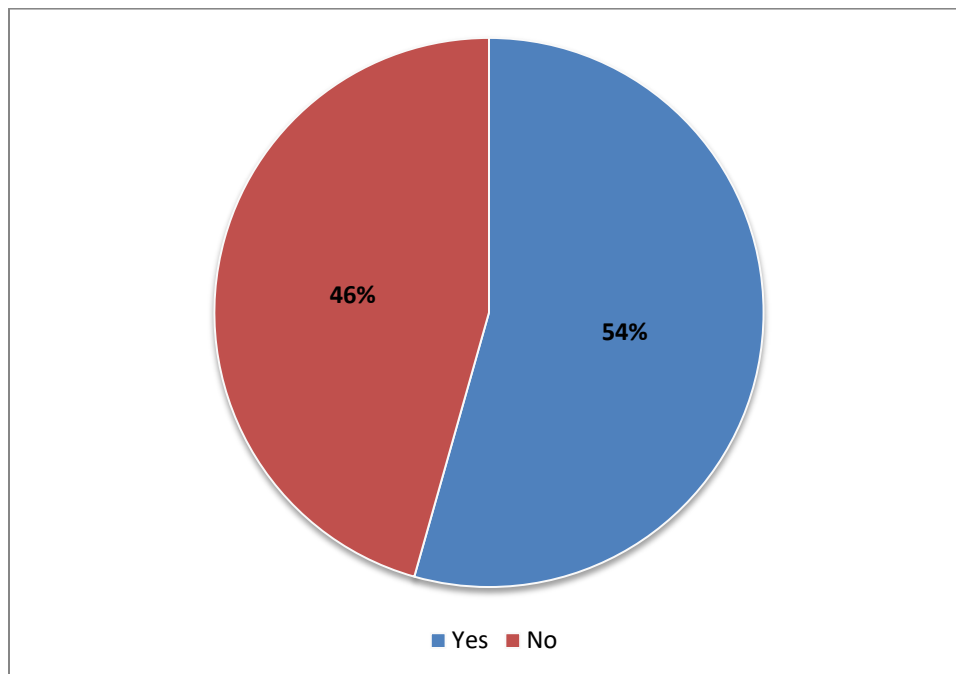


Figure 46. Pie graph representing whether the laboratories currently test for any Tier II compounds by special request (n = 57).

Of the fifty-seven responses, the majority of the participants responded with “yes.” A total of thirty-one out of fifty-seven respondents (54%) said that their laboratory currently tests for any of the Tier II compounds by special request. A total of twenty-six out of sixty respondents (46%) said that their laboratory does not currently test for any of the Tier II compounds by special request (Figure 46).

Respondents were given the chance to comment on the Tier II compounds that are tested for by special request if they responded with “yes.” Responses included all of the drugs listed as Tier II compounds.

Do you outsource any confirmatory testing in any fluid for Tier II drugs?

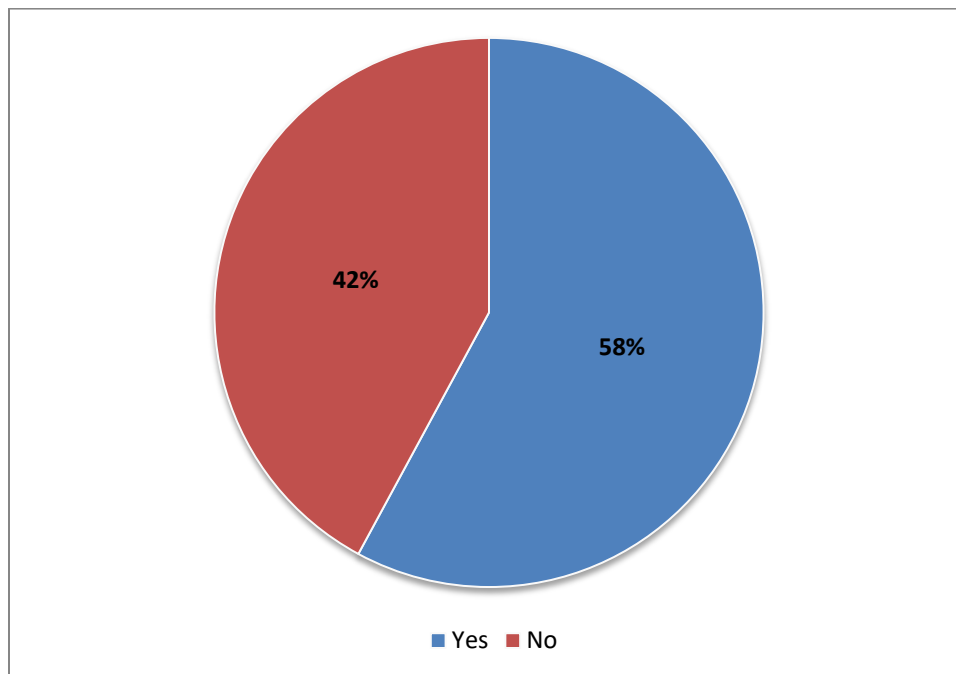


Figure 47. Pie graph representing whether the laboratories outsource any confirmatory testing in any fluid for Tier II drugs (n = 57).

Of the fifty-seven responses, the majority of the participants responded with “yes.” A total of thirty-three out of fifty-seven respondents (58%) said that their laboratory outsources any confirmatory testing in any fluid for Tier II drugs. A total of twenty-four out of fifty-seven respondents (42%) said that their laboratory does not outsource any confirmatory testing in any fluid for Tier II drugs (Figure 47).

Respondents also had the ability to comment on other reasons for outsourcing confirmatory testing in any fluid for Tier II drugs (thirty-three responses; 58% of the participants). Reasons for outsourcing included a lack of staffing, a lack of instrument technology, outside of scope, and backlog.

What additional drugs should be included in the new recommendations for DUID testing?

Compound/Class of Compounds	Number of Laboratories Making This Request
Fentanyl and analogs	24
Buprenorphine	9
Etizolam	6
Designer/synthetic opioids	5
Designer benzodiazepines	3
Mitragynine	2
Synthetic cannabinoids	2
Tramadol	2
Trazodone	2
Anti-psychotics	1
Carisoprodol/Meprobamate	1
CBD	1
CBN	1
Chlorpheniramine	1
Difluoroethane	1
Diphenhydramine	1
Gabapentin	1
Ibogaine	1
Ketamine	1
Metaxalone	1
NBOMe	1
PCP	1
Promethazine	1
Quetiapine	1
Risperdal	1
Zaleplon	1
Zopiclone	1

Figure 48. Table representing suggested drugs to be included in the new recommendations for DUID testing.

Seventy participants provided answers to this question. Multiple drugs were allowed to be listed by each participant. The top three most suggested drugs were fentanyl and analogs, buprenorphine, and etizolam. Of the seventy respondents, one participant suggested that PCP should be optional based on region.

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If you have suggestions for changes to the cut-off for a currently listed drug, please comment below:

A total of eleven participants provided suggestions for changes to the cut-off for a currently listed drug. Multiple suggestions were allowed to be provided by each participant. One participant suggested that all cut-offs should be lowered. Another participant suggested that the cut-off for amphetamine, methamphetamine, MDA, and MDMA be lowered from 20 ng/mL to 10 ng/mL in blood, and Carboxy-THC be raised from 5 ng/mL to 15 ng/mL in urine due to concerns of passive inhalation. One participant stated that amphetamine, methamphetamine, MDA, and MDMA cut-offs are too low for blood. Four participants stated that barbiturate levels are too low to be meaningful. Another participant stated that the cut-off for 6-MAM in blood is very low considering its frequency or likelihood of detection; however, his/her laboratory uses urine to screen for 6-MAM. One participant stated that GHB is rarely seen in casework. Another participant stated that his/her laboratory cannot detect double-digit cut-offs in urine for most of the drugs with only GC/MS in place; however, since his/her laboratory is not required to quantitate any drug, the laboratory struggles with reporting limits so low that it misleads prosecutors into thinking that automatically means impairment for the case. In addition, lack of instrumentation and a desire to use cut-offs more indicative of impairment are reasons as to why his/her laboratory cannot meet the recommended cut-offs. One participant suggested that confirmation of benzodiazepines and opiates in urine should be closer to 20 ng/mL rather than 50 ng/mL. Another participant suggested that the screening cut-off for THC in urine be between 35 ng/mL and 50 ng/mL.

Please list the top 10 drugs present in DUID casework (number 1-10; 1 = most prevalent).

Prevalence	Compound/Class
1 (most prevalent)	THC and metabolites
2	Alprazolam/alpha-hydroxyalprazolam
3	Amphetamine
4	Cocaine and metabolites
5	Oxycodone
6	Clonazepam/7-aminoclonazepam
7	Diazepam/Nordiazepam
8	Codeine
9	Morphine
10 (least prevalent)	Lorazepam

Figure 49. Frequency of drug appearing in top 10 most prevalent drugs in DUID casework (n = 70).

Respondents also had the ability to comment on other compounds present in DUID casework not listed in the survey. Responses included the following compounds: Lorazepam stated by one participant, Oxazepam stated by one participant, Buprenorphine stated by four participants, Sertraline stated by one participant, Phenazepam stated by one participant, Cathinones stated by one participant, Synthetic Cannabinoids stated by one participant, Etizolam stated by one participant, Mitragynine stated by one participant, Ketamine stated by one participant, Chlorpheniramine stated by two participants, Dextromethorphan stated by one participant, Ethylone stated by one participant, and Butylone stated by one participant.

Please note that the 7th most prevalent drug resulted in a tie between Diazepam/Nordiazepam and Oxycodone. Since Oxycodone was already listed as the 5th most prevalent drug, Diazepam/Nordiazepam was selected. Also, the 8th most prevalent drug resulted in a three-way tie between Amphetamine, Diazepam/Nordiazepam, and Oxycodone. Since Amphetamine was already listed as the 3rd most prevalent drug, Oxycodone as the 5th most prevalent drug, and Diazepam/Nordiazepam as the 7th most prevalent drug, the next most prevalent drug for the 8th position was selected. In addition, the 9th most prevalent drug resulted in a tie between Morphine and Oxycodone. Since Oxycodone was already listed as the 5th most prevalent drug, Morphine was selected.

Please list the top 10 drugs present in DUID casework.

Compound	Number of laboratories reporting this compound/class in their top 10
Alprazolam/alpha-hydroxyalprazolam	65
THC and metabolites	63
Oxycodone	57
Morphine	48
Methamphetamine	46
Cocaine and metabolites	46
Clonazepam/7-aminoclonazepam	41
Diazepam/Nordiazepam	40
Amphetamine	36
Hydrocodone	36
Other (<i>please specify below</i>)	30
Diphenhydramine	22
Zolpidem	18
Fentanyl	18
Lorazepam	18
Methadone	16
Codeine	15
Carisoprodol/Meprobamate	14
6-Acetylmorphine	13
Citalopram	9
Tramadol	9
Hydromorphone	9
Gabapentin	5
Trazodone	4
Oxazepam	3
Fluoxetine/Norfluoxetine	3
Phencyclidine (PCP)	3
Temazepam	3
Cyclobenzaprine	2
Dihydrocodeine	2
Oxymorphone	2
3,4-methylenedioxymethamphetamine (MDMA)	1
Amitriptyline	1
Butalbital	1
Topiramate	1

Figure 50. Prevalence of drug appearing in top 10 most prevalent drugs in DUID casework (n = 70).

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Respondents also had the ability to list other compounds that were not provided in the survey. These were the responses participants gave when “Other” was selected when ranking their top 10 drugs. Responses included the following compounds: Lorazepam stated by one participant, Oxazepam stated by one participant, Buprenorphine stated by four participants, Sertraline stated by one participant, Phenazepam stated by one participant, Cathinones stated by one participant, Synthetic Cannabinoids stated by one participant, Etizolam stated by one participant, Mitragynine stated by one participant, Ketamine stated by one participant, Chlorpheniramine stated by two participants, Dextromethorphan stated by one participant, Ethylone stated by one participant, and Butylone stated by one participant.

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If there is any other information you would like the DUID survey or NSC to have that was not covered in the survey questions, please comment below:

Participants were given an opportunity at the end of the survey to provide any information not covered in the survey questions. One participant said that he/she would like to see drug prevalence data more regionalized, especially for large states like California where some drugs may be more common in one area than another. Additionally, it would be interesting and useful to see drug differences nationally. Another participant said it may be good to have distinctions of populations such as inner-city versus urban to determine illicit versus prescription drug abuse trends. One participant stated that his/her laboratory has noticed there are problems with prosecution of impaired driving from non-controlled substances such as zolpidem and phentermine. Another participant stated that his/her laboratory has seen significant increases in alprazolam and amphetamines over the last several years.

One participant wrote a lengthy open-ended response stating that his/her laboratory's screening technique for blood in DUID cases consists of CEDIA on benzodiazepines, cannabinoids, opioids, cocaine and metabolites, and barbiturates, followed by a LC/MS screening test to check another 90 compounds. When found, those compounds are marked as positive or negative without concentrations. For confirmation testing in blood in DUID cases, only drugs administratively set for quantitation are confirmed with a concentration while others are qualitatively reported. However, for urine in DUID cases, CEDIA is done only for amphetamines, cocaine and metabolites, and cannabinoids, and when found are marked qualitatively. If a submitting agency requests for drugs outside of those, then more work is done using CEDIA/basic drug screens via GC/MS to accommodate the request. Furthermore, in DUID cases where both blood and urine are submitted, the blood is processed as explained above, and urine has CEDIA for cocaine and metabolites, opiates, and amphetamines where any found are confirmed. THC, barbiturates, and benzodiazepines are not tested on urine samples in this case due to blood being the more desirable matrix for usage, time, and impairment. These administrative policies are in place due to limited staff and resources in order to efficiently get DUID cases out.