

Drug Enforcement Administration
Office of Diversion Control



NFLIS

NATIONAL FORENSIC LABORATORY INFORMATION SYSTEM

Midyear Report 2007



Contents

| | |
|--|----|
| Introduction | 1 |
| Section 1: National and Regional Estimates | 2 |
| Section 2: Major Drug Categories | 7 |
| Appendix A: National Estimates Methodology | 10 |
| Appendix B: Participating and Reporting Forensic Laboratories | 11 |
| Appendix C: NFLIS Benefits and Limitations | 12 |
| Acknowledgments | 13 |

Highlights

- An estimated 975,314 drug items were analyzed by state and local laboratories in the United States from January 1, 2007, through June 30, 2007. These drug items were identified in an estimated 616,140 distinct cases.
- Cocaine was the most frequently identified drug (319,960), followed by cannabis/THC (307,557), methamphetamine (94,864), and heroin (46,919). The four most frequently identified drugs accounted for 79% of all analyzed drug items.
- Overall, there was an 8% increase in total number of drug items analyzed by state and local laboratories from the first half of 2001 through the first half of 2007, from 904,412 to 975,314. Among the top four drugs, cannabis/THC and heroin exhibited significant decreasing trends between January 2001 and June 2007 ($\alpha = .05$). However, the number of analyzed cocaine and methamphetamine items did not change significantly during this time.
- Regionally, cocaine was the most frequently identified drug in the South (41%) and Northeast (34%); cannabis/THC was the most frequently identified drug in the Midwest (49%); and methamphetamine was the most frequently identified drug in the West (34%).
- From the first half of 2001 to the first half of 2007, methamphetamine reporting increased significantly in the Northeast and South. However, heroin significantly decreased in these regions during this time. In the Northeast, cocaine also increased significantly between January 2001 and June 2007.
- Nationally, hydrocodone, oxycodone, and alprazolam increased significantly from January 2001 to June 2007. MDMA experienced a significant increase from January 2003 to June 2007.
- More than two thirds of identified narcotic analgesics were hydrocodone or oxycodone. Alprazolam accounted for 66% of identified benzodiazepines, while MDMA accounted for more than 8 out of 10 identified club drugs.

Introduction

The National Forensic Laboratory Information System (NFLIS) is a program sponsored by the Drug Enforcement Administration (DEA), Office of Diversion Control. NFLIS systematically collects results from drug analyses conducted by state and local forensic laboratories. These laboratories analyze controlled and noncontrolled substances secured in law enforcement operations across the country and represent an important resource for monitoring and understanding illicit drug use and trafficking, including the diversion of legally manufactured drugs into illegal markets. NFLIS data can identify not only the specific type of substance, but also the characteristics of drug evidence, such as purity, quantity, and drug combinations. These data are used to support drug scheduling efforts and to inform drug policy and drug enforcement initiatives.

Since its inception in September 1997, NFLIS has transformed into an operational information system that includes data from forensic laboratories that handle approximately 88% of the nation's nearly 1.2 million annual state and local drug analysis cases. As of September 2007,

NFLIS included 42 state systems, 92 local or municipal laboratories, and 1 territorial laboratory, representing a total of 274 individual laboratories. In addition, the NFLIS database includes federal data from the DEA's System To Retrieve Information from Drug Evidence II (STRIDE), which includes the results of drug evidence analyzed at DEA laboratories across the country. NFLIS will continue to work toward recruiting all state and local laboratories while also incorporating into the system the remainder of federal laboratories.

This report provides the results of substances analyzed by state and local laboratories from January 2007 through June 2007, including national and regional estimates for the most frequently identified drugs. Data from STRIDE are also included in this report. Section 1 provides national and regional estimates for the most frequently identified drugs. These estimates are based on data reported among the NFLIS national sample of laboratories. Section 2 presents drug analysis results for all state and local laboratories reporting 3 or more months of data to NFLIS during this 6-month period.

Participating Laboratories, by Census Region



Section 1: National and Regional Estimates

This section presents national and regional estimates for drug items analyzed by state and local forensic laboratories from January 2007 through June 2007. Semiannual trends are presented for selected drugs from January 2001 through June 2007. National drug case estimates are also presented. A national laboratory sample was used to produce estimates of

drugs identified by forensic laboratories for the nation and for census regions. Appendix A provides a detailed description of the methods used in preparing these estimates. A list of NFLIS laboratories, including those in the national sample, can be found in Appendix B. Appendix C describes the benefits and limitations of NFLIS.

Table 1.1

NATIONAL AND REGIONAL ESTIMATES FOR THE 25 MOST FREQUENTLY IDENTIFIED DRUGS*

Estimated number and percentage of total analyzed drug items, January 2007–June 2007.

| Drug | National | | West | | Midwest | | Northeast | | South | |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Cocaine | 319,960 | 32.81% | 34,358 | 19.88% | 55,920 | 27.02% | 66,631 | 34.34% | 163,051 | 40.61% |
| Cannabis/THC | 307,557 | 31.53% | 43,752 | 25.31% | 100,807 | 48.71% | 50,601 | 26.08% | 112,398 | 27.99% |
| Methamphetamine | 94,864 | 9.73% | 58,134 | 33.63% | 11,028 | 5.33% | 840 | 0.43% | 24,862 | 6.19% |
| Heroin | 46,919 | 4.81% | 6,065 | 3.51% | 9,749 | 4.71% | 15,217 | 7.84% | 15,888 | 3.96% |
| Hydrocodone | 17,877 | 1.83% | 1,994 | 1.15% | 2,458 | 1.19% | 2,364 | 1.22% | 11,061 | 2.75% |
| Alprazolam | 17,343 | 1.78% | ** | ** | 2,810 | 1.36% | 2,184 | 1.13% | 11,353 | 2.83% |
| Oxycodone | 14,362 | 1.47% | 1,751 | 1.01% | 2,579 | 1.25% | 4,288 | 2.21% | 5,744 | 1.43% |
| Noncontrolled, non-narcotic*** | 12,800 | 1.31% | 2,375 | 1.37% | 2,773 | 1.34% | 3,466 | 1.79% | 4,186 | 1.04% |
| MDMA | 12,561 | 1.29% | 2,956 | 1.71% | 2,776 | 1.34% | 1,013 | 0.52% | 5,816 | 1.45% |
| Methadone | 5,391 | 0.55% | 864 | 0.50% | 790 | 0.38% | 1,240 | 0.64% | 2,498 | 0.62% |
| Clonazepam | 4,209 | 0.43% | 426 | 0.25% | 813 | 0.39% | 1,368 | 0.71% | 1,602 | 0.40% |
| Diazepam | 3,593 | 0.37% | 646 | 0.37% | 887 | 0.43% | 405 | 0.21% | 1,655 | 0.41% |
| Morphine | 2,532 | 0.26% | 590 | 0.34% | 629 | 0.30% | 343 | 0.18% | 970 | 0.24% |
| Amphetamine | 2,199 | 0.23% | 309 | 0.18% | 536 | 0.26% | 333 | 0.17% | 1,021 | 0.25% |
| Carisoprodol | 2,135 | 0.22% | ** | ** | ** | ** | 57 | 0.03% | 1,497 | 0.37% |
| Phencyclidine (PCP) | 2,101 | 0.22% | 434 | 0.25% | 155 | 0.08% | 920 | 0.47% | 592 | 0.15% |
| Codeine | 1,865 | 0.19% | 257 | 0.15% | 313 | 0.15% | 246 | 0.13% | 1,049 | 0.26% |
| Pseudoephedrine**** | 1,701 | 0.17% | 109 | 0.06% | 802 | 0.39% | 1 | 0.00% | 790 | 0.20% |
| Psilocin | 1,597 | 0.16% | 560 | 0.32% | 312 | 0.15% | ** | ** | 331 | 0.08% |
| Buprenorphine | 1,282 | 0.13% | 78 | 0.05% | 133 | 0.06% | 730 | 0.38% | 341 | 0.08% |
| Methylphenidate | 1,052 | 0.11% | 101 | 0.06% | 221 | 0.11% | 333 | 0.17% | 397 | 0.10% |
| Ketamine | 1,047 | 0.11% | 165 | 0.10% | 244 | 0.12% | 223 | 0.12% | 415 | 0.10% |
| MDA | 978 | 0.10% | 53 | 0.03% | 125 | 0.06% | 423 | 0.22% | 378 | 0.09% |
| Hydromorphone | 851 | 0.09% | 107 | 0.06% | 109 | 0.05% | 86 | 0.04% | 550 | 0.14% |
| Lorazepam | 838 | 0.09% | 133 | 0.08% | 229 | 0.11% | 204 | 0.11% | 272 | 0.07% |
| <i>Top 25 Total</i> | <i>877,617</i> | <i>89.98%</i> | <i>157,683</i> | <i>91.23%</i> | <i>197,307</i> | <i>95.34%</i> | <i>153,910</i> | <i>79.33%</i> | <i>368,717</i> | <i>91.83%</i> |
| <i>All Other Drugs</i> | <i>97,697</i> | <i>10.02%</i> | <i>15,165</i> | <i>8.77%</i> | <i>9,650</i> | <i>4.66%</i> | <i>40,098</i> | <i>20.67%</i> | <i>32,784</i> | <i>8.17%</i> |
| <i>Total All Drugs*****</i> | <i>975,314</i> | <i>100.00%</i> | <i>172,848</i> | <i>100.00%</i> | <i>206,957</i> | <i>100.00%</i> | <i>194,009</i> | <i>100.00%</i> | <i>401,500</i> | <i>100.00%</i> |

MDMA=3,4-Methylenedioxyamphetamine

MDA=3,4-Methylenedioxyamphetamine

* Sample n's and 95% confidence intervals for all estimates are available upon request.

** The estimate for this drug does not meet standards of precision and reliability because too few laboratories reported this specific drug.

*** Category as reported by the NFLIS laboratories and no specific drug names were provided.

**** Includes items from a small number of laboratories that do not specify between pseudoephedrine and ephedrine.

***** Numbers may not sum to totals due to suppression and rounding.

Table 1.2 NATIONAL CASE ESTIMATES
Number and percentage of cases containing the 25 most frequently identified drugs, January 2007–June 2007.

| Drug | Number | Percent |
|--------------------------------|----------------|--------------------|
| Cocaine | 246,881 | 40.07% |
| Cannabis/THC | 232,671 | 37.76% |
| Methamphetamine | 69,402 | 11.26% |
| Heroin | 36,039 | 5.85% |
| Hydrocodone | 14,668 | 2.38% |
| Alprazolam | 14,615 | 2.37% |
| Oxycodone | 11,370 | 1.85% |
| Noncontrolled, non-narcotic* | 9,542 | 1.55% |
| MDMA | 9,016 | 1.46% |
| Methadone | 4,568 | 0.74% |
| Clonazepam | 3,703 | 0.60% |
| Diazepam | 3,215 | 0.52% |
| Morphine | 2,143 | 0.35% |
| Amphetamine | 1,817 | 0.29% |
| Carisoprodol | 2,017 | 0.33% |
| Phencyclidine (PCP) | 1,925 | 0.31% |
| Codeine | 1,628 | 0.26% |
| Pseudoephedrine** | 1,233 | 0.20% |
| Psilocin | 1,402 | 0.23% |
| Buprenorphine | 1,146 | 0.19% |
| Methylphenidate | 798 | 0.13% |
| Ketamine | 857 | 0.14% |
| MDA | 797 | 0.13% |
| Hydromorphone | 787 | 0.13% |
| Lorazepam | 768 | 0.12% |
| <i>Top 25 Total</i> | <i>673,006</i> | <i>109.23%</i> |
| <i>All Other Substances</i> | <i>78,816</i> | <i>12.79%</i> |
| <i>Total All Substances***</i> | <i>751,821</i> | <i>122.02%****</i> |

* Category as reported by the NFLIS laboratories and no specific drug names were provided.

** Includes cases from a small number of laboratories that do not specify between pseudoephedrine and ephedrine.

*** Numbers may not sum to totals due to rounding.

**** Multiple drugs can be reported within a single case, so the cumulative percentage exceeds 100%. The estimated national total of distinct cases that drug case percentages are based on is 616,140.

System To Retrieve Information from Drug Evidence II (STRIDE)

Data from the DEA's System To Retrieve Information from Drug Evidence II (STRIDE) reflect results of substance evidence from drug seizures, undercover drug buys, and other evidence analyzed at all the DEA laboratories located across the country. STRIDE includes results for drug cases submitted by DEA agents, other federal law enforcement agencies, and select local police agencies. Although STRIDE captures both domestic and international drug cases, the results presented here describe only those drugs obtained within the United States.

MOST FREQUENTLY IDENTIFIED DRUGS IN STRIDE, January 2007–June 2007.

| Drug | Number | Percent |
|----------------------------------|---------------|----------------|
| Cocaine | 8,371 | 30.71% |
| Cannabis/THC | 6,837 | 25.08% |
| Methamphetamine | 3,772 | 13.84% |
| Heroin | 2,091 | 7.67% |
| MDMA | 1,329 | 4.88% |
| Noncontrolled, non-narcotic drug | 534 | 1.96% |
| Oxycodone | 350 | 1.28% |
| Hydrocodone | 336 | 1.23% |
| Testosterone | 269 | 0.99% |
| Phencyclidine (PCP) | 197 | 0.72% |
| <i>All Other Drugs</i> | <i>3,170</i> | <i>11.63%</i> |
| <i>Total Analyzed Items</i> | <i>27,256</i> | <i>100.00%</i> |

NATIONAL AND REGIONAL DRUG TRENDS

National drug trends

Figure 1.1 presents national 6-month trend estimates for the number of cannabis/THC, cocaine, methamphetamine, and heroin items analyzed by state and local laboratories from January 2001 through June 2007. Overall, there was an 8% increase in the total number of analyzed items during this time, from 904,412 items to 975,314 items. Between January 2001 and June 2007, cannabis/THC and heroin exhibited significant decreasing trends ($\alpha = .05$). Reports of cannabis/THC and heroin were the lowest in July to December 2005, with cannabis/THC decreasing from 316,340 items in the first half of 2001 to 280,077 items in the second half of 2005 (an 11% decrease) and heroin decreasing from 53,889 to 40,522 items (a 25% decrease). The number of analyzed cocaine and methamphetamine items did not change significantly from January 2001 to June 2007.

Figure 1.2 presents national reporting trends for MDMA, alprazolam, oxycodone, and hydrocodone. Reports of hydrocodone, oxycodone, and alprazolam all experienced significant increases from January 2001 to June 2007 ($\alpha = .05$). During this time, reports of hydrocodone increased from 6,251 to 17,877 items (a 186% increase), reports of oxycodone increased from 5,844 to 14,362 items (a 146% increase), and reports of alprazolam increased from 7,937 to 17,343 items (a 119% increase). Reports of MDMA increased significantly ($\alpha = .05$) from 5,742 items in January 2003 to 12,561 items in June 2007 (a 119% increase).

Figure 1.1 National trend estimates for top four drugs, January 2001–June 2007.

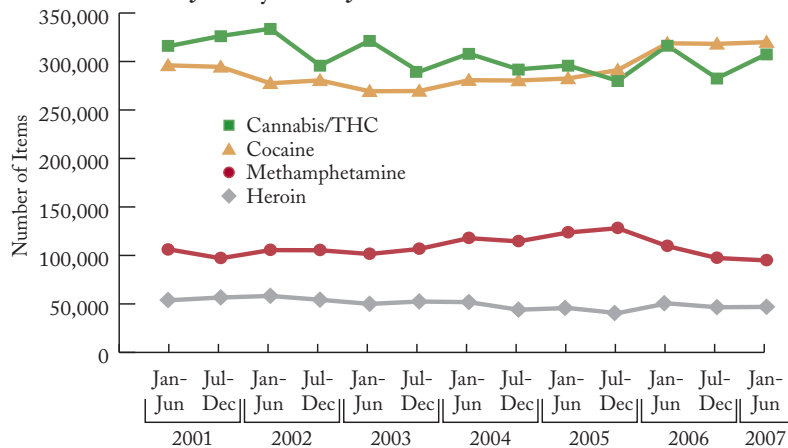
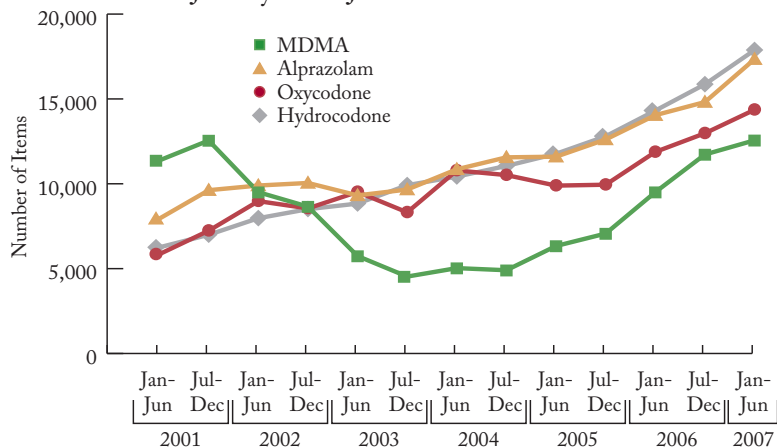


Figure 1.2 National trend estimates for other selected drugs, January 2001–June 2007.



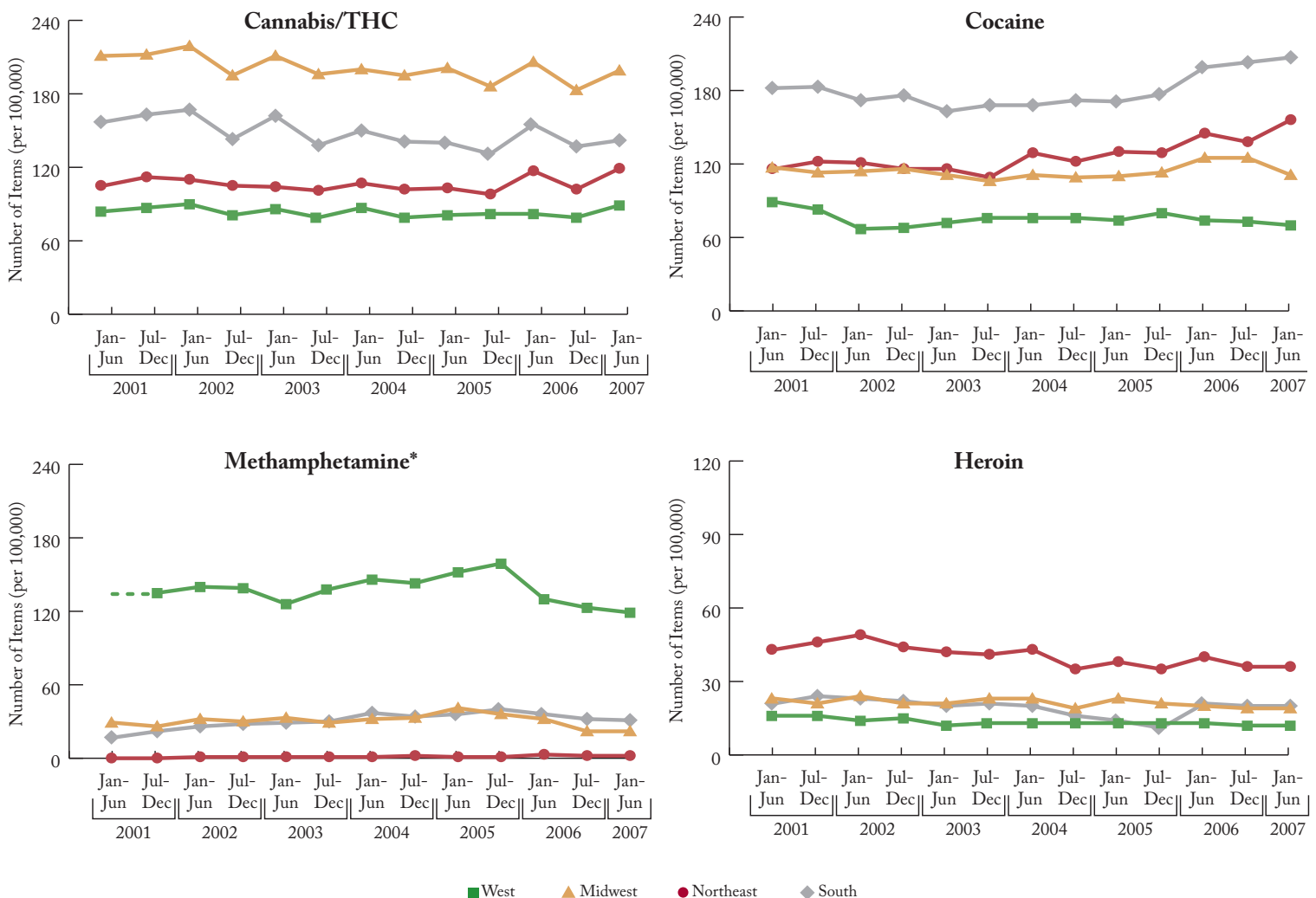
Regional drug trends

Figure 1.3 presents regional trends per 100,000 persons aged 15 or older for the top four reported drugs. This four-part figure illustrates changes in drugs reported over time, taking into account the population of each region.

Methamphetamine reporting significantly increased from January 2001 to June 2007 in the Northeast and the South ($\alpha = .05$). In the Northeast, methamphetamine reports increased from 0.4 items per 100,000 persons in 2001 to 2.0 items. Similarly, in the South, methamphetamine reports increased from 17.1 items per 100,000 persons to 31.5 items. An overall decline in heroin was reported in the Northeast

and South ($\alpha = .05$). In the Northeast, reports decreased from 42.8 items per 100,000 persons in the first half of 2001 to 35.6 items in the first half of 2007. In the South, reports of heroin were the lowest in 2005, falling from 20.5 items per 100,000 persons in January to 10.8 items in July to December 2005. In the first half of 2006, heroin reports per 100,000 persons nearly doubled to 21.4 items and have remained relatively flat through June 2007. Reports of cocaine increased significantly from January 2001 to June 2007 in the Northeast where the number of items increased from 116.1 per 100,000 persons to 156.1, a 34% increase ($\alpha = .05$).

Figure 1.3 Trends in the top four drugs reported per 100,000 persons aged 15 or older, January 2001–June 2007.



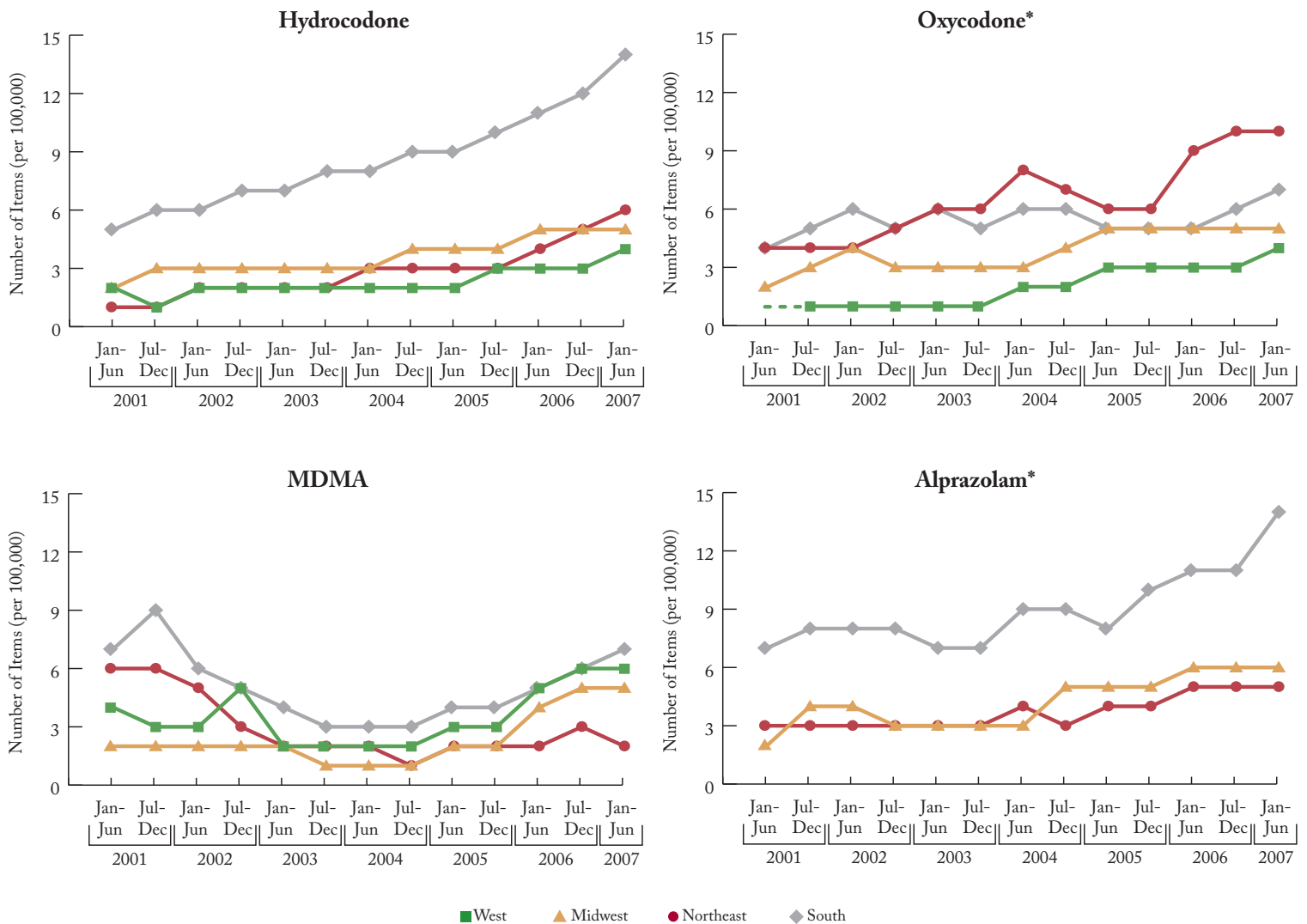
*A dashed line implies unstable estimates because too few laboratories in the region reported this specific drug.

Figure 1.4 shows regional trends per 100,000 persons aged 15 or older for hydrocodone, oxycodone, MDMA, and alprazolam from January 2001 through June 2007. During this period, reports of alprazolam increased significantly in the Midwest, South, and Northeast ($\alpha = .05$). In the Midwest, alprazolam reports increased from 2.3 to 5.6 items per 100,000 persons (a 139% increase); in the South, reports increased from 6.7 to 14.4 items per 100,000 persons (a 113% increase); and in the Northeast, reports increased from 2.9 to 5.1 items per 100,000 persons (a 78% increase). From January 2001 to June 2007, reports of oxycodone increased significantly in the Midwest and the Northeast ($\alpha = .05$). In the Northeast, oxycodone reports increased 158% from 3.9 to 10.0 reports per 100,000 persons, and in the Midwest, reports increased from 2.2 to 5.1 reports per 100,000 persons (a 128% increase). In the West, oxycodone reports increased by 467% from 0.6 items per

100,000 persons in the second half of 2001 to 3.6 items in the first half of 2007.

From January 2001 to June 2007, reports of MDMA increased significantly in the Midwest from 2.3 to 5.5 items per 100,000 persons and decreased significantly in the Northeast from 6.3 to 2.4 items per 100,000 persons ($\alpha = .05$). Although reports of MDMA in the South and West decreased initially, reports significantly increased from January 2003 through June 2007 from 3.5 to 7.4 reports per 100,000 in the South and from 2.3 to 6.0 reports per 100,000 in the West ($\alpha = .05$). Reports of hydrocodone increased significantly in all census regions from January 2001 to June 2007 ($\alpha = .05$). The largest increase of hydrocodone reports was in the Northeast (from 1.2 to 5.5 items per 100,000 persons, a 348% increase).

Figure 1.4 Trends in other selected drugs reported per 100,000 persons aged 15 or older, by region, January 2001–June 2007.



*A dashed line or the absence of a line implies unstable estimates because too few laboratories in the region reported this specific drug.

Section 2: Major Drug Categories

This section presents results for major drug categories reported by NFLIS laboratories from January 2007 through June 2007. Major drug categories presented in this section include narcotic analgesics, benzodiazepines, anabolic steroids, club drugs, and stimulants.

The results presented in this section are different from the national and regional estimates presented in Section 1. The

estimates presented in Section 1 were based on data reported by the NFLIS national sample, and the data were weighted to provide national and regional estimates. The data presented in Section 2 were reported by all NFLIS laboratories that provided 3 or more months of data during the first 6 months of 2007 (i.e., the data are not weighted). During this 6-month period, 801,245 analyzed drug items were reported by NFLIS laboratories.

Table 2.1 **NARCOTIC ANALGESICS**
Number and percentage of total identified narcotic analgesics, January 2007–June 2007.

| Analgesic | Number | Percent |
|----------------------------------|---------|---------|
| Hydrocodone | 15,239 | 39.51% |
| Oxycodone | 11,656 | 30.22% |
| Methadone | 3,883 | 10.07% |
| Morphine | 2,145 | 5.56% |
| Codeine | 1,367 | 3.54% |
| Buprenorphine | 853 | 2.21% |
| Hydromorphone | 833 | 2.16% |
| Dihydrocodeine | 774 | 2.01% |
| Propoxyphene | 721 | 1.87% |
| Fentanyl | 487 | 1.26% |
| Tramadol * | 372 | 0.96% |
| Meperidine | 162 | 0.42% |
| Pentazocine | 52 | 0.13% |
| Oxymorphone | 13 | 0.03% |
| Butorphanol | 5 | 0.01% |
| Nalbuphine * | 4 | 0.01% |
| <i>Total Narcotic Analgesics</i> | 38,566 | 100.00% |
| <i>Total Analyzed Items</i> | 801,245 | |

*Noncontrolled narcotic analgesic.

Figure 2.1 Distribution of narcotic analgesics within region, January 2007–June 2007.

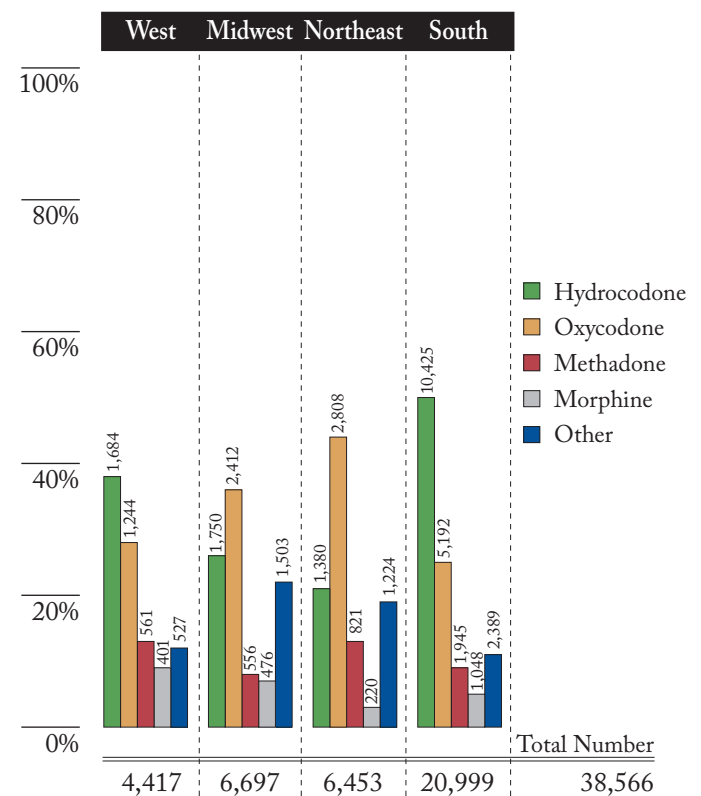


Table 2.2 **BENZODIAZEPINES**
Number and percentage of total identified benzodiazepines, January 2007–June 2007.

| Benzodiazepine | Number | Percent |
|------------------------------|---------|---------|
| Alprazolam | 15,291 | 66.04% |
| Clonazepam | 3,633 | 15.69% |
| Diazepam | 3,189 | 13.77% |
| Lorazepam | 773 | 3.34% |
| Temazepam | 170 | 0.73% |
| Chlordiazepoxide | 50 | 0.22% |
| Triazolam | 25 | 0.11% |
| Flunitrazepam | 16 | 0.07% |
| Midazolam | 6 | 0.03% |
| <i>Total Benzodiazepines</i> | 23,153 | 100.00% |
| <i>Total Analyzed Items</i> | 801,245 | |

Figure 2.2 Distribution of benzodiazepines within region, January 2007–June 2007.

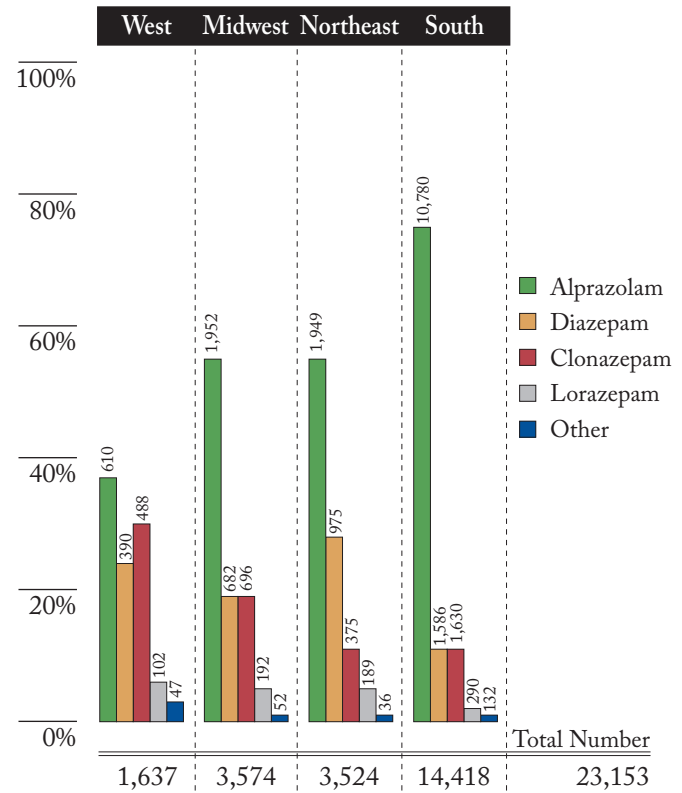


Table 2.3 **ANABOLIC STEROIDS**
Number and percentage of total identified anabolic steroids, January 2007–June 2007.

| Steroid | Number | Percent |
|----------------------------------|---------|---------|
| Testosterone | 457 | 44.94% |
| Methandrostenolone | 126 | 12.39% |
| Nandrolone | 119 | 11.70% |
| Stanozolol | 115 | 11.31% |
| Anabolic steroids, not specified | 64 | 6.29% |
| Boldenone | 45 | 4.42% |
| Oxymetholone | 38 | 3.74% |
| Oxandrolone | 28 | 2.75% |
| Methyltestosterone | 8 | 0.79% |
| Mesterolone | 7 | 0.69% |
| Methenolone | 5 | 0.49% |
| Drostanolone | 4 | 0.39% |
| Fluoxymesterone | 1 | 0.10% |
| <i>Total Anabolic Steroids</i> | 1,017 | 100.00% |
| <i>Total Analyzed Items</i> | 801,245 | |

Figure 2.3 Distribution of anabolic steroids within region, January 2007–June 2007.

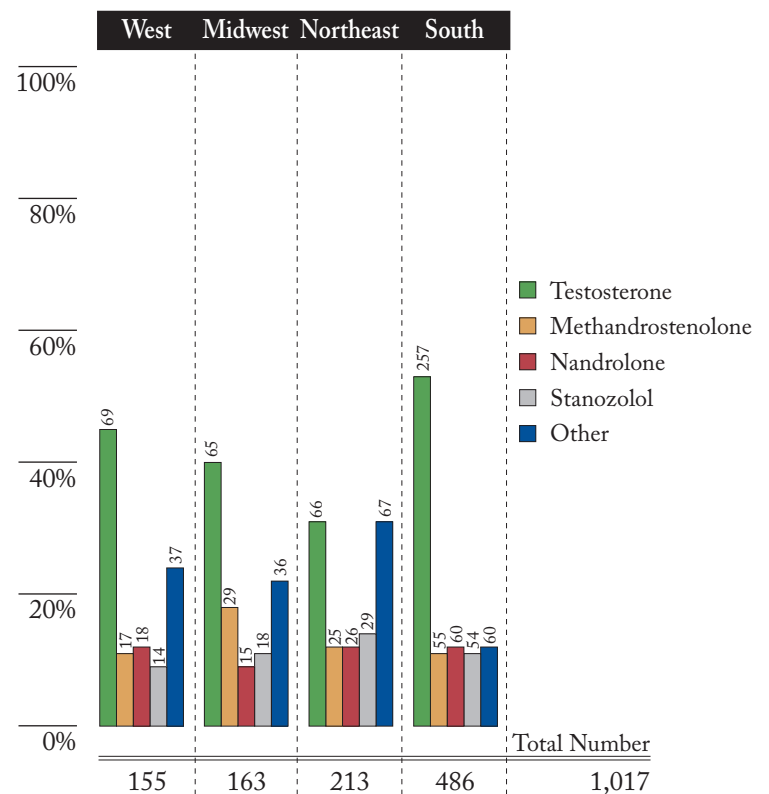


Table 2.4 CLUB DRUGS

Number and percentage of total identified club drugs, January 2007–June 2007.

| Club Drug | Number | Percent |
|-----------------------------|---------|---------|
| MDMA | 10,207 | 84.30% |
| MDA | 983 | 8.12% |
| Ketamine | 778 | 6.43% |
| GHB/GBL | 113 | 0.93% |
| MDEA | 16 | 0.13% |
| 5-MeO-DIPT | 6 | 0.05% |
| BZP | 3 | 0.02% |
| AMT | 2 | 0.02% |
| <i>Total Club Drugs</i> | 12,108 | 100.00% |
| <i>Total Analyzed Items</i> | 801,245 | |

MDMA=3,4-Methylenedioxyamphetamine
 MDA=3,4-Methylenedioxyamphetamine
 GHB/GBL=gamma-hydroxybutyrate or gamma-butyrolactone
 MDEA=N-ethyl-3,4-methylenedioxyamphetamine
 5-MeO-DIPT=5-Methoxy-N,N-diisopropyltryptamine
 BZP=1-Benzylpiperazine
 AMT=Alpha-Methyltryptamine

Figure 2.4 Distribution of club drugs within region, January 2007–June 2007.

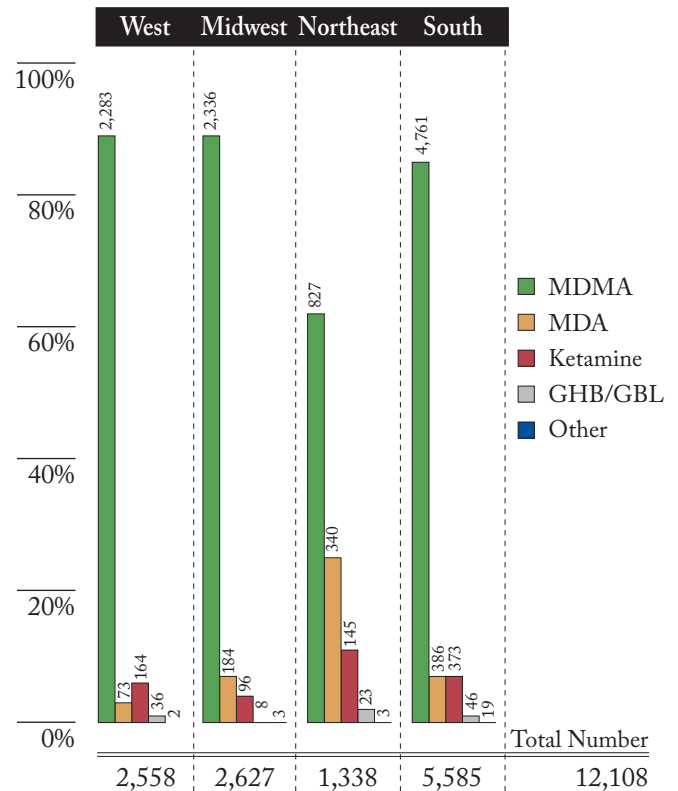
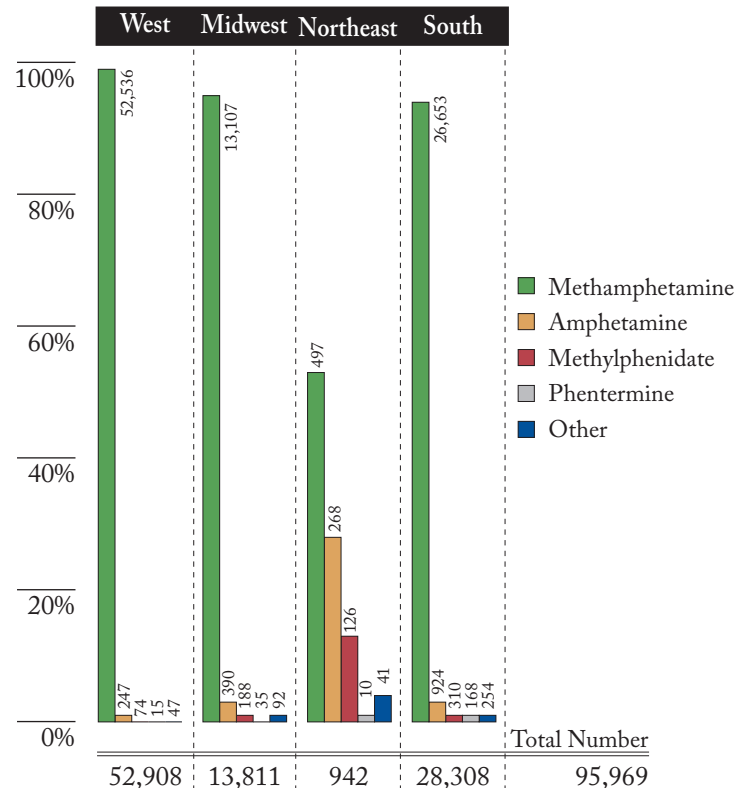


Table 2.5 STIMULANTS

Number and percentage of total identified stimulants, January 2007–June 2007.

| Stimulant | Number | Percent |
|-----------------------------|---------|---------|
| Methamphetamine | 92,793 | 96.69% |
| Amphetamine | 1,829 | 1.91% |
| Methylphenidate | 698 | 0.73% |
| Phentermine | 228 | 0.24% |
| Ephedrine* | 200 | 0.21% |
| Cathinone | 88 | 0.09% |
| N,N-dimethylamphetamine | 31 | 0.03% |
| Phendimetrazine | 29 | 0.03% |
| Benzphetamine | 20 | 0.02% |
| Cathine | 12 | 0.01% |
| Diethylpropion | 11 | 0.01% |
| Modafinil | 10 | 0.01% |
| Phenylpropanolamine* | 5 | 0.01% |
| Phenmetrazine | 3 | 0.00% |
| Clobenzorex** | 2 | 0.00% |
| Fenproporex | 2 | 0.00% |
| Propylhexedrine** | 2 | 0.00% |
| Sibutramine | 2 | 0.00% |
| Mazindol | 1 | 0.00% |
| Mephentermine** | 1 | 0.00% |
| Methcathinone | 1 | 0.00% |
| Pemoline | 1 | 0.00% |
| <i>Total Stimulants</i> | 95,969 | 100.00% |
| <i>Total Analyzed Items</i> | 801,245 | |

Figure 2.5 Distribution of stimulants within region, January 2007–June 2007.



*Listed chemical.
 ** Noncontrolled stimulant.

NATIONAL ESTIMATES METHODOLOGY

Since 2001, NFLIS reports have included national and regional estimates for the number of drug items and drug cases analyzed by state and local forensic laboratories in the United States. This appendix discusses the methods used for producing these estimates, including sample selection, weighting, and imputation and adjustment procedures. RTI International, under contract to the DEA, began implementing NFLIS in September 1997. Results from a 1998 survey provided laboratory-specific information, including annual caseload figures, used to establish a national sampling frame of all state and local forensic laboratories that routinely perform drug analyses. A representative probability proportional to size (PPS) sample was drawn on the basis of annual cases analyzed per laboratory, resulting in a NFLIS national sample of 29 state laboratory systems and 31 local or municipal laboratories, a total of 165 individual laboratories (see Appendix B for a list of sampled and nonsampled NFLIS laboratories). Only the data for those laboratories that reported drug analysis data for 3 or more months during the first 6 months of 2007 were included in the national estimates.

Weighting Procedures

Data were weighted with respect to both the original sampling design and nonresponse in order to compute design-consistent, nonresponse-adjusted estimates. Weighted prevalence estimates were produced for drug cases and drug items analyzed by state and local forensic laboratories from January 2007 through June 2007.

A separate item-level and case-level weight was computed for each sample laboratory or laboratory system using caseload information obtained from an updated laboratory survey administered in 2004. These survey results allowed for the case- and item-level weights to be poststratified to reflect current levels of laboratory activity. Item-level prevalence estimates were computed using the item-level weights, and case-level estimates were computed using the case-level weights.

Drug Report Cutoff

Not all drugs are reported by laboratories with sufficient frequency to allow reliable estimates to be computed. For some drugs, such as cannabis/THC and cocaine, thousands of items are reported annually, allowing for reliable national prevalence estimates to be computed. Many other substances have 100 or fewer annual observations for the entire sample. A prevalence estimate based upon such few observations is not likely to be reliable and thus was not included in the national estimates. The method for evaluating the cutoff point was established using the coefficient of variation, or CV, which is the ratio between the standard error of an estimate and the estimate itself. As a rule, drug estimates with a CV greater than 0.5 were suppressed and not shown in the tables.

* For more information on this technique, please refer to Chernick, M.R. (1999). *Bootstrap Methods: A Practitioner's Guide*. New York: Wiley.

Imputations and Adjustments

Due to technical and other reporting issues, several laboratories did not report data for every month during the first 6 months of 2007. This resulted in missing monthly data, which is a concern in calculating national estimates of drug prevalence. Imputations were performed separately by drug for laboratories that were missing monthly data, using drug-specific proportions generated from laboratories reporting all 6 months of data.

Although most forensic laboratories report case-level analyses in a consistent manner, a small number of laboratories do not produce item-level counts that are comparable with those submitted by the vast majority of laboratories. Most laboratories report items in terms of the number of vials of the particular pill, yet a few laboratories report the count of the individual pills themselves as "items." Because the case-level counts across laboratories are comparable, they were used to develop item-level counts for the few laboratories that count items differently. For those laboratories, it was assumed that drug-specific ratios of cases to items should be similar to laboratories serving similarly sized areas. Item-to-case ratios for each drug were produced for the similarly sized laboratories, and these drug-specific ratios were then used to adjust the drug item counts for the relevant laboratories.

Statistical Techniques for Trend Analysis

A trend analysis was performed on the January 2001 through June 2007 national and regional estimates. Typically, models test for mean differences; however, the national and regional estimates are totals. To work around this challenge, a bootstrapping technique was employed. (Bootstrapping is an iterative technique used to estimate variances when standard variance estimation procedures cannot be used.)* All statistical tests were performed at the 95% confidence level ($\alpha = .05$). In other words, if a linear trend was found to be statistically different, then the probability of observing a linear trend (under the assumption that no linear trend existed) was less than 5%.

PARTICIPATING AND REPORTING FORENSIC LABORATORIES

| State | Lab Type | Laboratory Name | Reporting |
|-------|----------|---|-----------|
| AK | State | Alaska Department of Public Safety | ✓ |
| AL | State | Alabama Department of Forensic Sciences (10 sites) | ✓ |
| AR | State | Arkansas State Crime Laboratory | ✓ |
| AZ | Local | Mesa Police Department | ✓ |
| | Local | Phoenix Police Department | ✓ |
| | Local | Scottsdale Police Department | ✓ |
| CA | State | California Department of Justice (10 sites) | ✓ |
| | Local | Contra Costa County Sheriff's Office | ✓ |
| | Local | Fresno County Sheriff's Forensic Laboratory | ✓ |
| | Local | Kern County District Attorney's Office (Bakersfield) | ✓ |
| | Local | Long Beach Police Department | ✓ |
| | Local | Los Angeles Police Department (2 sites) | ✓ |
| | Local | Los Angeles County Sheriff's Department (4 sites) | ✓ |
| | Local | Orange County Sheriff's Department | ✓ |
| | Local | Sacramento County District Attorney's Office | ✓ |
| | Local | San Bernardino Sheriff's Office (2 sites) | ✓ |
| | Local | San Diego County Sheriff's Department | ✓ |
| | Local | San Diego Police Department | ✓ |
| | Local | San Francisco Police Department | ✓ |
| | Local | San Mateo County Sheriff's Office (San Mateo) | ✓ |
| | Local | Santa Clara District Attorney's Office (San Jose) | ✓ |
| | Local | Ventura County Sheriff's Department | ✓ |
| CO | State | Colorado Bureau of Investigation (3 sites) | ✓ |
| | Local | Aurora Police Department | ✓ |
| | Local | Colorado Springs Police Department | ✓ |
| | Local | Denver Police Department Crime Laboratory | ✓ |
| | Local | Grand Junction Police Department | ✓ |
| | Local | Jefferson County Sheriff's Office (Golden) | ✓ |
| CT | State | Connecticut Department of Public Safety | ✓ |
| DE | State | Chief Medical Examiner's Office | ✓ |
| FL | State | Florida Department of Law Enforcement (8 sites) | ✓ |
| | Local | Broward County Sheriff's Office (Ft. Lauderdale) | ✓ |
| | Local | Miami-Dade Police Department Crime Laboratory | ✓ |
| | Local | Indian River Crime Laboratory | ✓ |
| | Local | Pinellas County Forensic Laboratory (Largo) | ✓ |
| | Local | Sarasota County Sheriff's Office | ✓ |
| GA | State | Georgia State Bureau of Investigation (7 sites) | ✓ |
| HI | Local | Honolulu Police Department | ✓ |
| IA | State | Iowa Division of Criminal Investigations | ✓ |
| ID | State | Idaho State Police (3 sites) | ✓ |
| IL | State | Illinois State Police (8 sites) | ✓ |
| | Local | DuPage County Sheriff's Office (Wheaton) | ✓ |
| | Local | Northern Illinois Police Crime Laboratory (Chicago) | ✓ |
| IN | State | Indiana State Police Laboratory (4 sites) | ✓ |
| | Local | Indianapolis-Marion County Forensic Laboratory | ✓ |
| KS | State | Kansas Bureau of Investigation (3 sites) | ✓ |
| | Local | Johnson County Sheriff's Office (Mission) | ✓ |
| | Local | Sedgwick County Regional Forensic Science Center (Wichita) | ✓ |
| KY | State | Kentucky State Police (6 sites) | ✓ |
| LA | State | Louisiana State Police | ✓ |
| | Local | Acadiana Criminalistics Laboratory (New Iberia) | ✓ |
| | Local | Jefferson Parish Sheriff's Office (Metairie) | ✓ |
| | Local | New Orleans Police Department Crime Laboratory | ✓ |
| | Local | North Louisiana Criminalistics Laboratory System (3 sites) | ✓ |
| | Local | Southwest Louisiana Regional Laboratory (Lake Charles) | ✓ |
| MA | State | Massachusetts Department of Public Health (2 sites) | ✓ |
| | State | Massachusetts State Police | ✓ |
| | Local | University of Massachusetts Medical Center (Worcester) | ✓ |
| MD | Local | Anne Arundel County Police Department (Millersville) | ✓ |
| | Local | Baltimore City Police Department | ✓ |
| | Local | Baltimore County Police Department (Towson) | ✓ |
| | Local | Montgomery County Crime Laboratory (Rockville) | ✓ |
| ME | State | Maine Department of Human Services | ✓ |
| MI | State | Michigan State Police (7 sites) | ✓ |
| | Local | Detroit Police Department | ✓ |
| MN | State | Minnesota Bureau of Criminal Apprehension (2 sites) | ✓ |
| | Local | St. Paul Police Department | ✓ |
| MO | State | Missouri State Highway Patrol (6 sites) | ✓ |
| | Local | Independence Police Department | ✓ |
| | Local | KCMO Regional Crime Laboratory (Kansas City) | ✓ |
| | Local | MSSU Regional Crime Laboratory (Joplin) | ✓ |
| | Local | St. Charles County Criminalistics Laboratory | ✓ |
| | Local | St. Louis County Crime Laboratory (Clayton) | ✓ |
| | Local | St. Louis Police Department | ✓ |
| | Local | South East Missouri Regional Crime Laboratory (Cape Girardeau) | ✓ |

| State | Lab Type | Laboratory Name | Reporting |
|-------|-----------|---|-----------|
| MS | State | Mississippi Department of Public Safety (4 sites) | ✓ |
| | Local | Jackson Police Department Crime Laboratory | ✓ |
| | Local | Tupelo Police Department | ✓ |
| MT | State | Montana Forensic Science Division | ✓ |
| NC | State | North Carolina State Bureau of Investigation (2 sites) | ✓ |
| | Local | Charlotte-Mecklenburg Police Department | ✓ |
| NE | State | Nebraska State Patrol Criminalistics Laboratory (2 sites) | ✓ |
| NJ | State | New Jersey State Police (4 sites) | ✓ |
| | Local | Burlington County Forensic Laboratory (Mt. Holly) | ✓ |
| | Local | Cape May County Prosecutor's Office | ✓ |
| | Local | Hudson County Prosecutor's Office (Jersey City) | ✓ |
| | Local | Newark Police Department | ✓ |
| | Local | Ocean County Sheriff's Department (Toms River) | ✓ |
| | Local | Union County Prosecutor's Office (Westfield) | ✓ |
| NM | State | New Mexico Department of Public Safety | ✓ |
| | Local | Albuquerque Police Department | ✓ |
| NV | Local | Las Vegas Police Department | ✓ |
| NY | State | New York State Police (4 sites) | ✓ |
| | Local | Erie County Central Police Services Laboratory (Buffalo) | ✓ |
| | Local | Monroe County Department of Public Safety (Rochester) | ✓ |
| | Local | Nassau County Police Department (Mineola) | ✓ |
| | Local | New York City Police Department Crime Laboratory* | ✓ |
| | Local | Niagara County Police Department (Lockport) | ✓ |
| | Local | Onondaga County Center for Forensic Sciences (Syracuse) | ✓ |
| | Local | Suffolk County Crime Laboratory (Hauppauge) | ✓ |
| | Local | Westchester County Forensic Sciences Laboratory (Valhalla) | ✓ |
| | Local | Yonkers Police Department Forensic Science Laboratory | ✓ |
| OH | State | Ohio Bureau of Criminal Identification & Investigation (3 sites) | ✓ |
| | State | Ohio State Highway Patrol | ✓ |
| | Local | Canton-Stark County Crime Laboratory | ✓ |
| | Local | Columbus Police Department | ✓ |
| | Local | Hamilton County Coroner's Office (Cincinnati) | ✓ |
| | Local | Lake County Regional Forensic Laboratory (Painesville) | ✓ |
| | Local | Mansfield Police Department | ✓ |
| | Local | Miami Valley Regional Crime Laboratory (Dayton) | ✓ |
| | Local | Newark Police Department Forensic Services | ✓ |
| | Local | Toledo Police Forensic Laboratory | ✓ |
| OK | State | Oklahoma State Bureau of Investigation (5 sites) | ✓ |
| OR | State | Oregon State Police Forensic Services Division (8 sites) | ✓ |
| PA | State | Pennsylvania State Police Crime Laboratory (6 sites) | ✓ |
| | Local | Allegheny County Coroner's Office (Pittsburgh) | ✓ |
| | Local | Philadelphia Police Department Forensic Science Laboratory | ✓ |
| SC | State | South Carolina Law Enforcement Division | ✓ |
| | Local | Charleston Police Department | ✓ |
| | Local | Spartanburg Police Department | ✓ |
| SD | Local | Rapid City Police Department | ✓ |
| TN | State | Tennessee Bureau of Investigation (3 sites) | ✓ |
| TX | State | Texas Department of Public Safety (13 sites) | ✓ |
| | Local | Austin Police Department | ✓ |
| | Local | Bexar County Criminal Investigations Laboratory (San Antonio) | ✓ |
| | Local | Brazoria County Crime Laboratory (Angleton) | ✓ |
| | Local | Harris County Medical Examiner's Office (Houston) | ✓ |
| | Local | Jefferson County Sheriff's Regional Crime Laboratory (Beaumont) | ✓ |
| | Local | Pasadena Police Department | ✓ |
| | Local | Fort Worth Police Department Criminalistics Laboratory | ✓ |
| UT | State | Utah State Crime Laboratory (4 sites) | ✓ |
| VA | State | Virginia Division Forensic Science (4 sites) | ✓ |
| WA | State | Washington State Patrol (6 sites) | ✓ |
| WI | State | Wisconsin Department of Justice (3 sites) | ✓ |
| WV | State | West Virginia State Police | ✓ |
| WY | State | Wyoming State Crime Laboratory | ✓ |
| PR | Territory | Puerto Rico Crime Laboratory | ✓ |

This list identifies participating and reporting laboratories as of September 1, 2007.

Laboratories in bold are part of the national sample.

*The New York City Police Department Crime Laboratory currently reports summary data.

*NFLIS BENEFITS AND LIMITATIONS***Benefits**

The systematic collection and analysis of drug analysis data can improve our understanding of the nation's illegal drug problem. NFLIS serves as a critical resource for supporting drug scheduling policy and drug enforcement initiatives both nationally and in specific communities around the country.

Specifically, NFLIS helps the drug control community achieve its mission by

- providing detailed information on the prevalence and types of controlled substances secured in law enforcement operations
- identifying variations in controlled and noncontrolled substances at the national, state, and local levels
- identifying emerging drug problems and changes in drug availability in a timely fashion
- monitoring the diversion of legitimately marketed drugs into illicit channels
- providing information on the characteristics of drugs, including quantity, purity, and drug combinations
- supplementing information from other drug sources, including the DEA's STRIDE, the Drug Abuse Warning Network (DAWN), the National Survey on Drug Use and Health (NSDUH), and the Monitoring the Future (MTF) Survey.

NFLIS is an opportunity for state and local laboratories to participate in a useful and high-visibility initiative. Participating laboratories regularly receive reports that summarize national and regional data. In addition, the Interactive Data Site (IDS) is a secure Web site that allows NFLIS participants—including state and local laboratories, the DEA, other federal drug control agencies, and researchers—to run customized queries on the NFLIS data. Enhancements to the IDS will also provide a new interagency exchange forum that will allow the DEA, forensic laboratories, and other members of the drug control community to post and respond to current information.

Limitations

NFLIS has limitations that must be considered when interpreting findings generated from the database.

- Currently, NFLIS includes data from state and local forensic laboratories, as well as data from DEA's STRIDE. STRIDE includes data from DEA's laboratories across the country. The STRIDE data are shown separately in this report. Efforts are under way to enroll additional federal laboratories during 2007.
- NFLIS includes drug chemistry results from completed analyses only. Drug evidence secured by law enforcement but not analyzed by laboratories is not included in the database.
- National and regional estimates may be subject to variation associated with sample estimates, including nonresponse bias.
- For results presented in Section 2, the absolute and relative frequency of analyzed results for individual drugs can in part be a function of laboratories' participating in NFLIS.
- State and local policies related to the enforcement and prosecution of specific drugs may affect drug evidence submissions to laboratories for analysis.
- Laboratory policies and procedures for handling drug evidence vary. Some laboratories analyze all evidence submitted to them, while others analyze only selected items. Many laboratories do not analyze drug evidence if the criminal case was dismissed from court or if no defendant could be linked to the case.
- Laboratories vary with respect to the records they maintain. For example, some laboratories' automated records include the weight of the sample selected for analysis (e.g., the weight of one of five bags of powder), while others record total weight.

ACKNOWLEDGMENTS

This report was prepared under contract DEA-03-C-0013, Drug Enforcement Administration, U.S. Department of Justice. Points of view or opinions expressed in this document do not necessarily represent the official position of the DEA or the U.S. Department of Justice.

At the DEA, DeMia Peters contributed to the report and provided oversight across all preparation stages; Liqun Wong, Susan Carr, and Chris Sannerud provided oversight and guidance. At RTI, BeLinda Weimer was the major contributor and led its production; Kevin Strom and Valley Rachal provided oversight and guidance; Jeffrey Ancheta oversaw the database preparation; Celia Eicheldinger provided statistical analysis and review; Shari Lambert oversaw the graphic design; and Richard Straw edited the report.

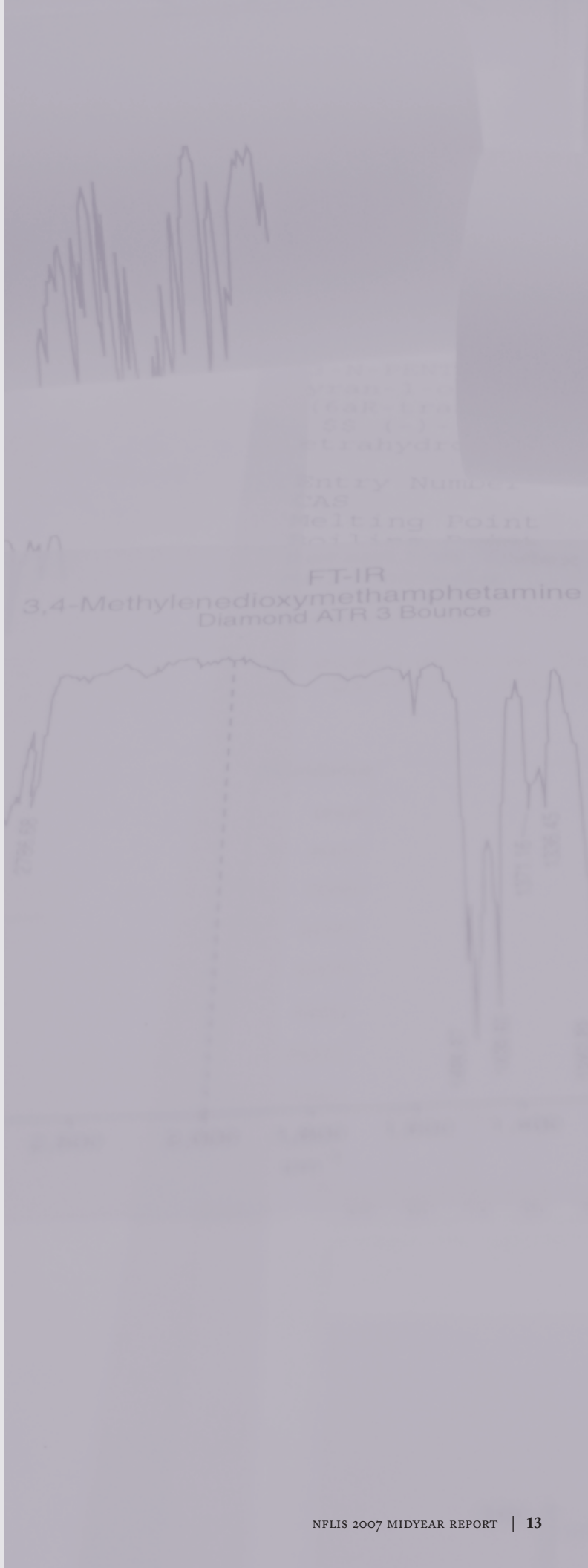
PUBLIC DOMAIN NOTICE

All material appearing in this report is in the public domain and may be reproduced or copied without permission from the DEA. However, this publication may *not* be reproduced or distributed for a fee without the specific, written authorization of the U.S. Drug Enforcement Administration, U.S. Department of Justice. Citation of the source is appreciated. Suggested citation:

The National Forensic Laboratory Information System: Midyear Report 2007. U.S. Drug Enforcement Administration, Office of Diversion Control. Washington, D.C., 2007.

OBTAINING ADDITIONAL COPIES OF PUBLICATION

Electronic copies of this report can be downloaded from the NFLIS website at <https://www.nflis.dea/diversion.usdoj.gov/>.





Drug Enforcement Administration
Office of Diversion Control
600 Army Navy Drive
Arlington, VA 22202

Attention: DeMia Peters, DEA Program Officer
Phone: 202-307-7732
Fax: 202-353-1263
E-mail: DeMia.E.Peters@usdoj.gov



RTI International*
Health, Social, and Economics Research
3040 Cornwallis Road, PO Box 12194
Research Triangle Park, NC 27709-2194

Attention: Valley Rachal, NFLIS Project Director
Phone: 1-800-334-8571, ext. 7712
Fax: 919-485-7700
E-mail: jvr@rti.org

October 2007

**RTI International is a trade name of Research Triangle Institute.*