Drug Enforcement Administration

Office of Diversion Control

NFLIS

NATIONAL FORENSIC LABORATORY INFORMATION SYSTEM

Midyear Report 2008

Contents

Introduction 1

Section 1: National and Regional Estimates 2

Section 2: Major Drug Categories 8

Appendix A: National Estimates Methodology 11

Appendix B: Participating and Reporting Forensic Laboratories 12

Appendix C: NFLIS Benefits and Limitations 13

Public Domain Notice and Obtaining Additional Copies of This Report 14

Highlights

- An estimated 914,670 drug items were analyzed by state and local laboratories in the United States from January 1, 2008, through June 30, 2008. These drug items were identified in an estimated 578,569 distinct cases.
- Cannabis/THC was the most frequently identified drug (307,531), followed by cocaine (293,089), methamphetamine (69,846), and heroin (49,433). The four most frequently identified drugs accounted for 79% of all analyzed drug items.
- Overall, there was a 6% decrease in the total number of drug items analyzed by state and local laboratories from the first half of 2007 through the first half of 2008, from 975,314 to 914,670 items.
- Nationally, hydrocodone, oxycodone, and alprazolam increased significantly from January 2001 through June 2008 ($\alpha = .05$).
- Nationwide among the top four drugs, methamphetamine and heroin exhibited significant decreasing trends between January 2001 and June 2008. However, the number of analyzed cannabis/THC and cocaine items did not change significantly during this time. Reports of MDMA more than doubled from the second half of 2003 to the first half of 2008.
- Regionally, from January 2001 through June 2008, hydrocodone and oxycodone increased significantly in all four regions. During this same time, reports of alprazolam increased significantly in the Midwest, South, and Northeast.
- Cannabis/THC was the most frequently identified drug in the Midwest (49%) and West (29%), and cocaine was the most frequently identified drug in the South (39%) and Northeast (37%).
- From the first half of 2001 through the first half of 2008, methamphetamine reports increased significantly in the Northeast and South, but decreased significantly in the West. Heroin significantly decreased in the Northeast and South during this time. In the Northeast, cocaine also increased significantly between January 2001 and June 2008.
- Reports of MDMA increased significantly in the Midwest and West, but decreased significantly in the Northeast from January 2001 through June 2008.
- More than two thirds of identified narcotic analgesics were hydrocodone or oxycodone. Alprazolam accounted for 65% of identified benzodiazepines, and MDMA accounted for 72% of identified club drugs.

Introduction

The National Forensic Laboratory Information System (NFLIS) is a program of 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, making NFLIS an important resource for monitoring illicit drug use and trafficking, including the diversion of legally manufactured drugs into illegal markets. NFLIS data can identify not only the specific 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 over 88% of the nation's nearly 1.2 million annual state and local drug analysis cases. As of October 2008, NFLIS included 47 state systems, 95 local or municipal laboratories, and 1 territorial laboratory, representing a total of 278 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 nonparticipating 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 2008 through June 2008, 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 2008 through June 2008 (see Table 1.1). National drug case estimates are also presented (see Table 1.2). Semiannual trends, moreover, are presented for selected drugs from January 2001 through June 2008. 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 2008–June 2008.

	National		West		Midwest		Northeast		South	
Drug	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Cannabis/THC	307,531	33.62%	46,772	29.43%	99,582	49.21%	49,777	31.18%	111,399	28.29%
Cocaine	293,089	32.04%	32,532	20.47%	47,191	23.32%	59,409	37.22%	153,957	39.10%
Methamphetamine	69,846	7.64%	40,035	25.19%	10,440	5.16%	680	0.43%	18,691	4.75%
Heroin	49,433	5.40%	6,160	3.88%	10,540	5.21%	17,889	11.21%	14,844	3.77%
Hydrocodone	19,980	2.18%	2,264	1.42%	3,907	1.93%	2,339	1.47%	11,471	2.91%
Oxycodone	17,219	1.88%	2,047	1.29%	3,078	1.52%	4,229	2.65%	7,866	2.00%
Alprazolam	16,654	1.82%	862	0.54%	3,020	1.49%	2,576	1.61%	10,195	2.59%
MDMA	10,969	1.20%	3,113	1.96%	2,421	1.20%	792	0.50%	4,642	1.18%
Noncontrolled, non-narcotic***	6,275	0.69%	1,077	0.68%	1,418	0.70%	1,090	0.68%	2,690	0.68%
Methadone	5,219	0.57%	869	0.55%	749	0.37%	1,101	0.69%	2,499	0.63%
Clonazepam	4,184	0.46%	404	0.25%	950	0.47%	1,107	0.69%	1,723	0.44%
Diazepam	3,800	0.42%	522	0.33%	954	0.47%	646	0.40%	1,678	0.43%
Phencyclidine (PCP)	3,232	0.35%	375	0.24%	109	0.05%	1,916	1.20%	832	0.21%
Morphine	3,155	0.34%	639	0.40%	677	0.33%	593	0.37%	1,245	0.32%
Amphetamine	2,648	0.29%	271	0.17%	811	0.40%	395	0.25%	1,171	0.30%
Buprenorphine	2,475	0.27%	**	**	240	0.12%	1,226	0.77%	885	0.22%
Pseudoephedrine****	2,292	0.25%	153	0.10%	1,124	0.56%	3	0.00%	1,012	0.26%
Carisoprodol	2,202	0.24%	**	**	182	0.09%	48	0.03%	1,593	0.40%
Codeine	1,904	0.21%	262	0.16%	299	0.15%	353	0.22%	990	0.25%
Psilocin	1,494	0.16%	540	0.34%	408	0.20%	164	0.10%	383	0.10%
BZP	1,272	0.14%	**	**	441	0.22%	162	0.10%	592	0.15%
MDA	1,134	0.12%	29	0.02%	18	0.01%	681	0.43%	406	0.10%
Lorazepam	1,045	0.11%	157	0.10%	326	0.16%	220	0.14%	342	0.09%
Ketamine	1,002	0.11%	205	0.13%	183	0.09%	194	0.12%	419	0.11%
Hydromorphone	963	0.11%	126	0.08%	196	0.10%	115	0.07%	526	0.13%
Top 25 Total	829,019	90.64%	139,994	88.09%	189,268	93.53%	147,704	92.53%	352,054	89.41%
All Other Drugs	85,651	9.36%	18,924	11.91%	13,097	6.47%	11,918	7.47%	41,712	10.59%
*Total Analyzed Drugs*****	914,670	100.00%	158,918	100.00%	202,365	100.00%	159,622	100.00%	393,766	100.00%

MDMA=3,4-Methylenedioxymethamphetamine
BZP=1-Benzylpiperazine
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.*
**** As reported by NFLIS laboratories, with no specific drug names 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 2008–June 2008.

Drug	Number	Percent
Cannabis/THC	226,782	39.20%
Cocaine	224,224	38.76%
Methamphetamine	49,328	8.53%
Heroin	37,490	6.48%
Hydrocodone	16,363	2.83%
Oxycodone	13,306	2.30%
Alprazolam	13,675	2.36%
MDMA	7,699	1.33%
Noncontrolled, non-narcotic*	4,384	0.76%
Methadone	4,402	0.76%
Clonazepam	3,635	0.63%
Diazepam	3,251	0.56%
Phencyclidine (PCP)	3,034	0.52%
Morphine	2,579	0.45%
Amphetamine	2,243	0.39%
Buprenorphine	2,156	0.37%
Pseudoephedrine**	1,592	0.28%
Carisoprodol	1,925	0.33%
Codeine	1,653	0.29%
Psilocin	1,258	0.22%
BZP	859	0.15%
MDA	970	0.17%
Lorazepam	932	0.16%
Ketamine	862	0.15%
Hydromorphone	880	0.15%
Top 25 Total	625,482	108.12%
All Other Drugs	66,589	11.51%
*Total All Drugs****	692,071	119.63%*****

MDMA=3,4-Methylenedioxymethamphetamine
BZP=1-Benzylpiperazine
MDA=3,4-Methylenedioxyamphetamine

** As reported by the NFLIS laboratories, with no specific drug names 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 the drug case percentages are based on is 578,484.*

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 activities analyzed at 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 in this section describe only those drugs obtained within the United States.

MOST FREQUENTLY IDENTIFIED DRUGS IN STRIDE, January 2008–June 2008.

Drug	Number	Percent
Cocaine	7,941	30.76%
Cannabis/THC	6,273	24.30%
Methamphetamine	3,173	12.29%
Heroin	2,371	9.18%
MDMA	1,013	3.92%
Noncontrolled, non-narcotic drug	537	2.08%
Oxycodone	389	1.51%
Hydrocodone	266	1.03%
Phencyclidine (PCP)	214	0.83%
Testosterone	164	0.64%
All Other Drugs	3,474	13.46%
Total Analyzed Items	25,815	100.00%

National and Regional Drug Trends

National prescription drug trends

From January 2001 through June 2008, the total analyzed items increased 1% from 904,412 to 914,670 items. However, from the first half of 2007 through the first half of 2008, the total analyzed items decreased 6% from 975,314 to 914,670 items.

Figure 1.1 presents national 6-month trend estimates for alprazolam, oxycodone, and hydrocodone. Reports of hydrocodone, oxycodone, and alprazolam experienced significant increases from January 2001 to June 2008 (α = .05). During this time, reports of hydrocodone increased from 6,251 to 19,991 items (a 220% increase), reports of oxycodone increased from 5,844 to 17,241 items (a 195% increase), and reports of alprazolam increased from 7,937 to 16,669 items (a 110% increase).

Other national drug trends

Figure 1.2 presents national reporting trends for the number of cannabis/THC, cocaine, methamphetamine, heroin, and MDMA items analyzed by state and local laboratories from the first half of 2001 through the first half of 2008. Between January 2001 and June 2008, methamphetamine and heroin items exhibited significant decreasing trends (α = .05). The low point for heroin was reported in the July-December 2005 period when heroin decreased to 40,522 items. In comparison, reporting for methamphetamine was at its lowest in the July-December 2007 period when 68,694 items were reported (a 35% decrease from the first half of 2001). The number of analyzed cocaine and cannabis/THC items did not change significantly from January 2001 to June 2008. Reports of MDMA increased significantly from a low of 4,531 items in the second half of 2003 to 10,974 items in the first half of 2008 (α = .05).

Figure 1.1 National trend estimates for selected prescription drugs, January 2001–June 2008.

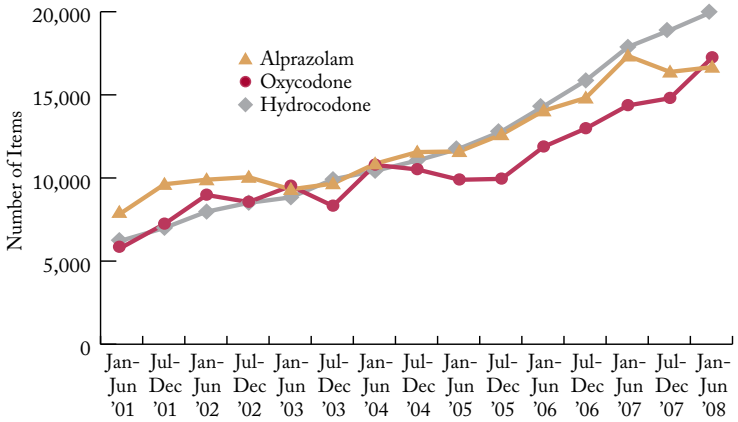
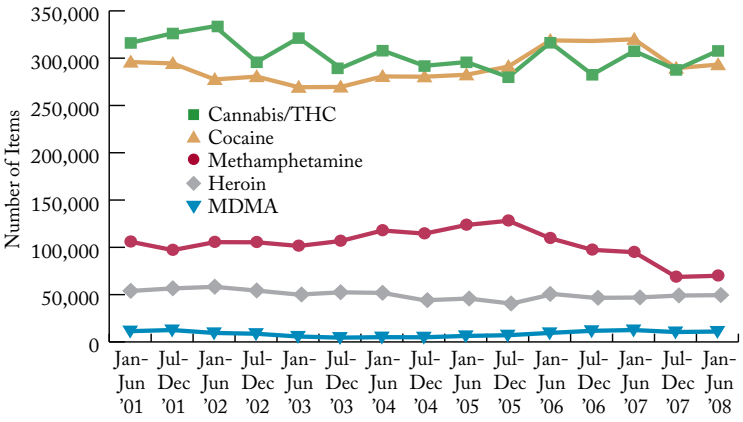


Figure 1.2 National trend estimates for other selected drugs, January 2001–June 2008.



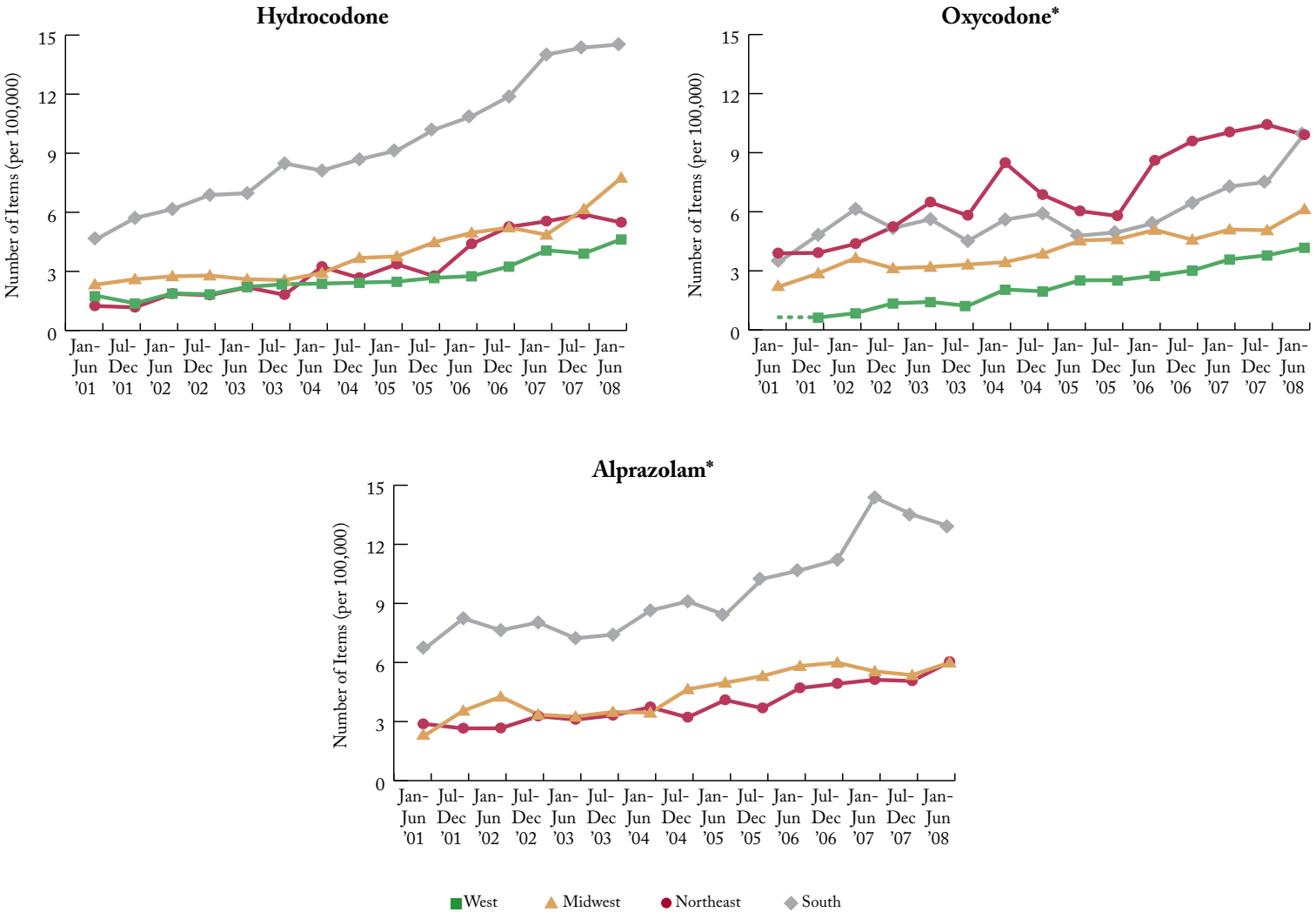
Regional prescription drug trends

Figure 1.3 shows regional trends per 100,000 persons aged 15 or older for hydrocodone, oxycodone, and alprazolam from January 2001 through June 2008. During this period, hydrocodone reports increased significantly in all census regions ($\alpha = .05$). The largest increases of hydrocodone reports were in the Northeast (from 1.2 to 5.5 items per 100,000 persons, a 348% increase) and in the Midwest (from 2.3 to 7.8 items per 100,000 persons, a 231% increase).

From January 2001 through June 2008, reports of oxycodone also increased significantly in all four regions ($\alpha = .05$). In the Northeast, oxycodone reports increased 154% from 3.9 to 9.9 items per 100,000 persons; in the Midwest, reports increased from 2.2 to 6.1 items per 100,000 persons (a 177% increase); in the South, reports increased from 3.5 to 10.0 items per 100,000 persons (a 186% increase); and in the West, reports increased from 0.6 to 4.2 items per 100,000 persons (a 600% increase).

Reports of alprazolam increased significantly in the Midwest, South, and Northeast ($\alpha = .05$). In the Midwest, alprazolam reports increased from 2.3 to 6.0 items per 100,000 persons (a 161% increase); in the South, reports increased from 6.7 to 12.9 items per 100,000 persons (a 93% increase); and in the Northeast, reports increased from 2.9 to 6.0 items per 100,000 persons (a 107% increase).

Figure 1.3 Regional trends in selected prescription drugs reported per 100,000 persons aged 15 or older, January 2001–June 2008.



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

Other regional drug trends

Figure 1.4 presents regional trends per 100,000 persons aged 15 or older for other selected drugs. This five-part figure illustrates changes in drugs reported over time, taking into account the population of each region.

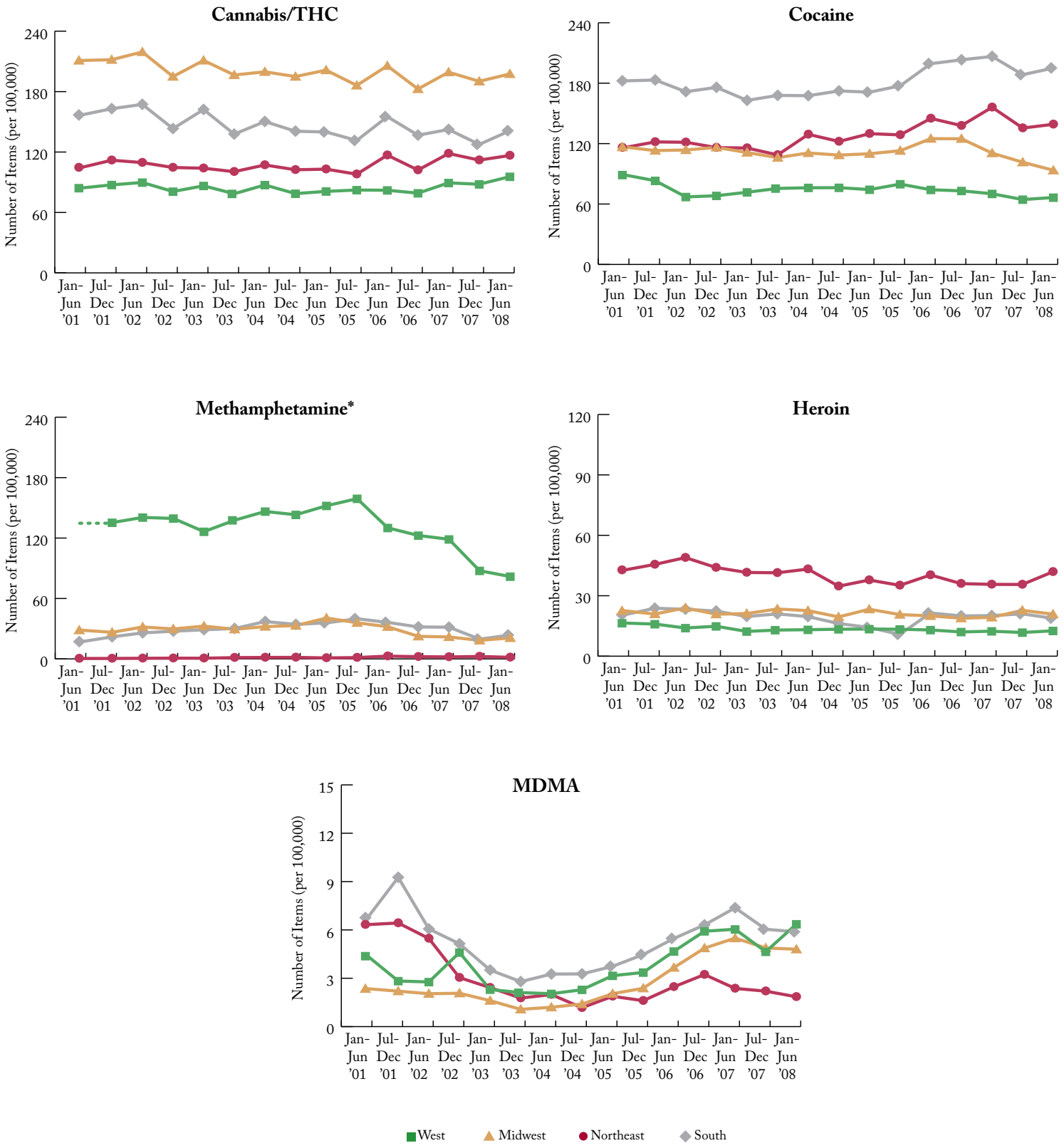
Reports of cocaine increased significantly from January 2001 through June 2008 in the Northeast where the number of items increased 20% from 116.1 to 139.2 items per 100,000 persons ($\alpha = .05$).

Methamphetamine reports increased significantly from January 2001 to June 2008 in the Northeast and the South, but decreased in the West ($\alpha = .05$). In the Northeast, methamphetamine reports increased from 0.4 items per 100,000 persons in 2001 to 1.6 items (a 288% increase). In the South, methamphetamine reports increased from 17.1 items per 100,000 persons to 23.7 items (a 39% increase). However, from the first half of 2007 to the first half of 2008, methamphetamine reporting by laboratories declined in three of the four regions. Methamphetamine reports decreased by 31% in the West, 25% in the South, and 19% in the Northeast.

From January 2001 through June 2008, an overall decline in heroin was reported in the Northeast and South ($\alpha = .05$). In the Northeast, heroin reports decreased from 42.8 items per 100,000 persons in the first half of 2001 to the lowest level of 34.7 items in the second half of 2004 and continued to remain lower than the 2001 reporting at 41.9 items in the first half of 2008. In the South, reports of heroin decreased from 20.5 items per 100,000 persons in the first half of 2001 to 10.8 items in the second half of 2005, then doubled to 21.4 items in the first half of 2006 and remained relatively flat through June 2008.

MDMA reports increased significantly from January 2001 to June 2008 in the Midwest from 2.3 to 7.8 items per 100,000 persons (a 104% increase) and in the West from 4.4 to 6.4 items per 100,000 persons (a 45% increase). Reports of MDMA decreased significantly in the Northeast from 6.3 to 1.9 items per 100,000 persons (a 71% decrease) ($\alpha = .05$).

Figure 1.4 Regional trends in other selected drugs reported per 100,000 persons aged 15 or older, January 2001–June 2008.



**A dashed 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 2008 through June 2008. 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 are based on data reported by the NFLIS national sample. 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 2008 (i.e., the data are not weighted). During this 6-month period, 748,272 analyzed drug items were reported by NFLIS laboratories.

Table 2.1 NARCOTIC ANALGESICS
Number and percentage of total identified narcotic analgesics, January 2008–June 2008.

Analgesic	Number	Percent
Hydrocodone	17,982	39.12%
Oxycodone	15,156	32.97%
Methadone	4,069	8.85%
Morphine	2,618	5.70%
Buprenorphine	1,856	4.04%
Codeine	1,565	3.40%
Hydromorphone	843	1.83%
Propoxyphene	657	1.43%
Tramadol*	539	1.17%
Fentanyl	263	0.57%
Meperidine	159	0.35%
Opium	142	0.31%
Dihydrocodeine	41	0.09%
Oxymorphone	35	0.08%
Pentazocine	33	0.07%
Nalbuphine*	5	0.01%
Butorphanol	3	0.01%
Total Narcotic Analgesics	45,966	100.00%
Total Analyzed Items	748,272	

**Noncontrolled narcotic analgesic.*

Figure 2.1 Distribution of narcotic analgesics within region, January 2008–June 2008.

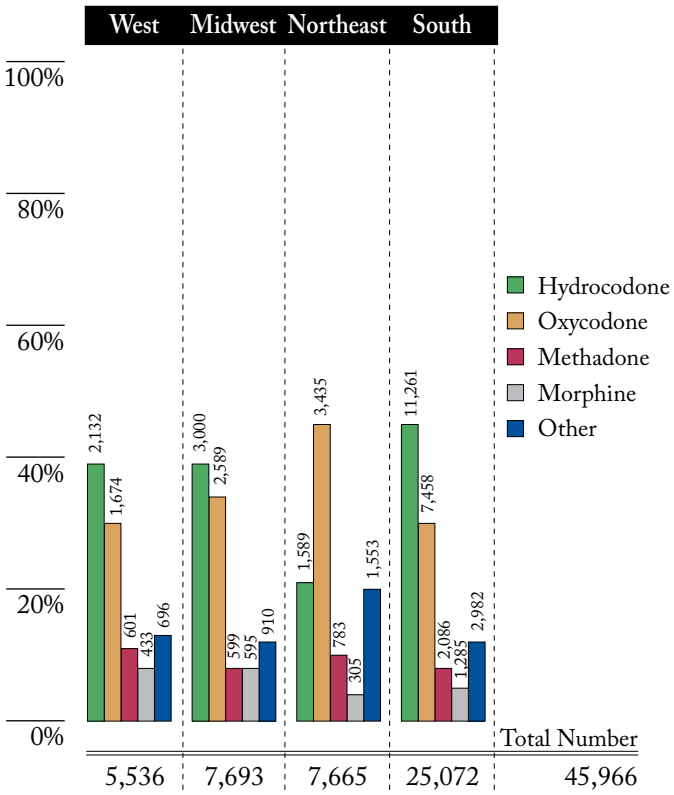


Table 2.2 **BENZODIAZEPINES**
Number and percentage of total identified benzodiazepines, January 2008–June 2008.

Benzodiazepine	Number	Percent
Alprazolam	15,202	65.26%
Clonazepam	3,758	16.13%
Diazepam	3,124	13.41%
Lorazepam	928	3.98%
Temazepam	197	0.85%
Chlordiazepoxide	46	0.20%
Triazolam	30	0.13%
Midazolam	6	0.03%
Flunitrazepam	2	0.01%
Total Benzodiazepines	23,293	100.00%
Total Analyzed Items	748,272	

Figure 2.2 Distribution of benzodiazepines within region, January 2008–June 2008.

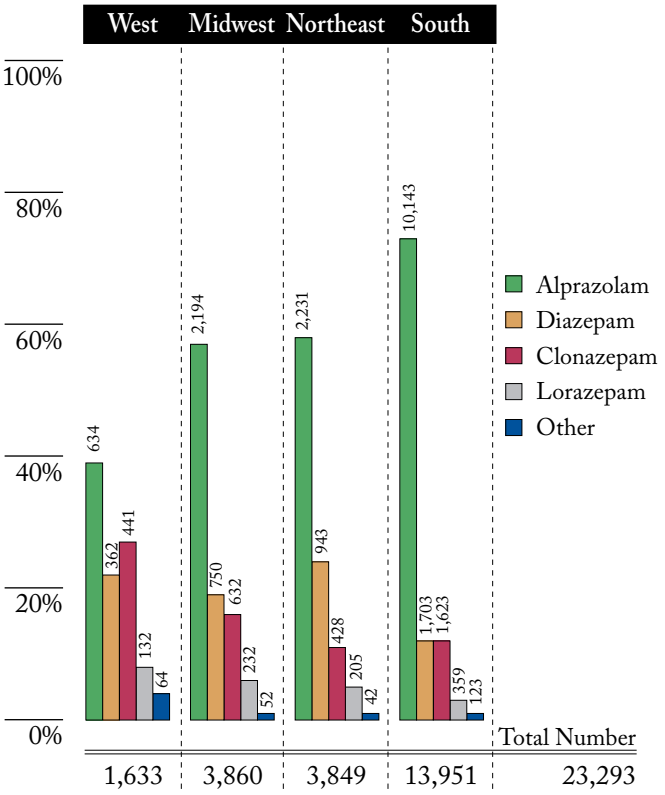


Table 2.3 **ANABOLIC STEROIDS**
Number and percentage of total identified anabolic steroids, January 2008–June 2008.

Steroid	Number	Percent
Testosterone	502	45.31%
Methandrostenolone	167	15.07%
Nandrolone	130	11.73%
Stanozolol	121	10.92%
Anabolic steroids, not specified	53	4.78%
Oxymetholone	42	3.79%
Oxandrolone	30	2.71%
Boldenone	20	1.81%
Mesterolone	14	1.26%
Methyltestosterone	10	0.90%
Methenolone	10	0.90%
Drostanolone	6	0.54%
Fluoxymesterone	2	0.18%
Clostebol	1	0.09%
Total Anabolic Steroids	1,108	100.00%
Total Analyzed Items	748,272	

Figure 2.3 Distribution of anabolic steroids within region, January 2008–June 2008.

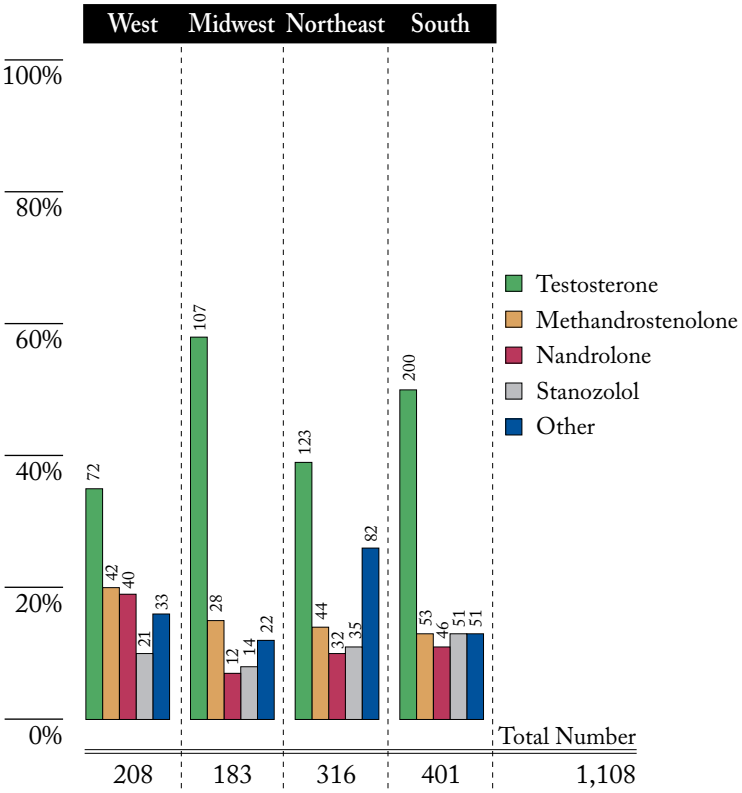


Table 2.4 **CLUB DRUGS**
Number and percentage of total identified club drugs, January 2008–June 2008.

Club Drug	Number	Percent
MDMA	8,933	72.12%
BZP	1,021	8.24%
MDA	924	7.46%
Ketamine	907	7.32%
TFMPP*	395	3.19%
GHB/GBL	117	0.94%
5-MeO-DIPT	83	0.67%
MDEA	7	0.06%
Total Club Drugs	12,387	100.00%
Total Analyzed Items	748,272	

MDMA=3,4-Methylenedioxymethamphetamine
BZP=1-Benzylpiperazine
MDA=3,4-Methylenedioxyamphetamine
TFMPP=1-(3-Trifluoromethylphenyl)piperazine
GHB/GBL=gamma-hydroxybutyrate or gamma-butyrolactone
5-MeO-DIPT=5-Methoxy-N,N-diisopropyltryptamine
MDEA=N-ethyl-3,4-methylenedioxyamphetamine

**Noncontrolled club drug.*

Figure 2.4 Distribution of club drugs within region, January 2008–June 2008.

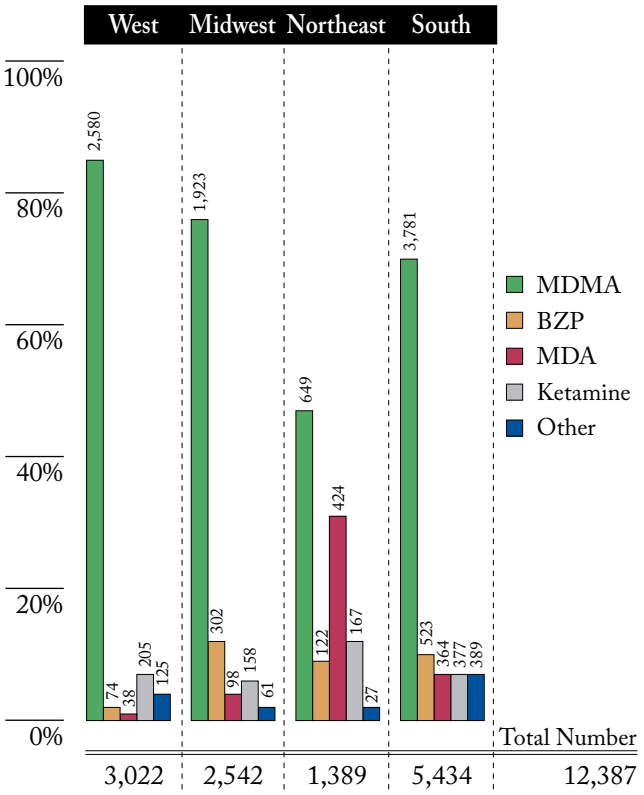
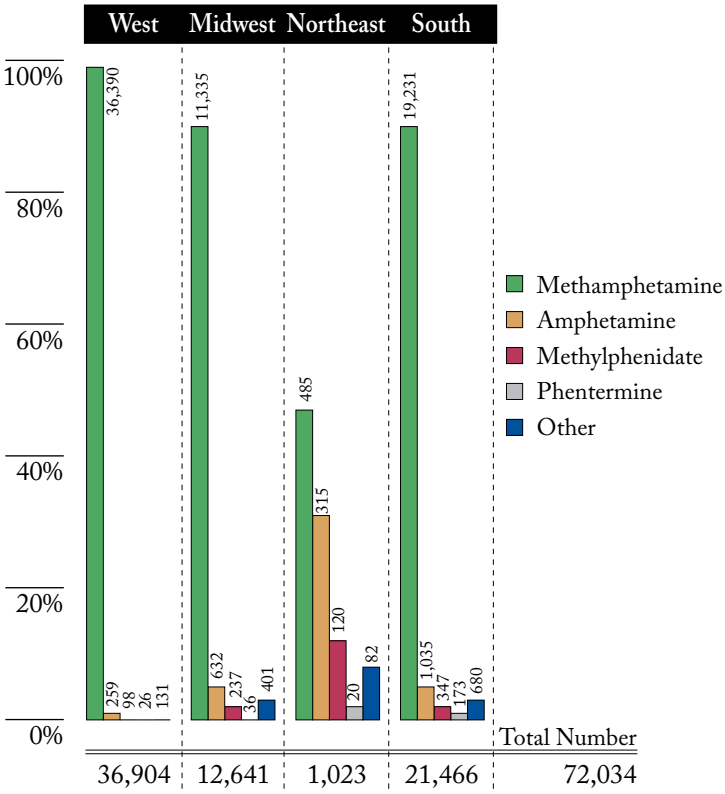


Table 2.5 **STIMULANTS**
Number and percentage of total identified stimulants, January 2008–June 2008.

Stimulant	Number	Percent
Methamphetamine	67,441	93.62%
Amphetamine	2,241	3.11%
Methylphenidate	802	1.11%
Caffeine*	800	1.11%
Phentermine	255	0.35%
Ephedrine**	152	0.21%
Cathinone	84	0.12%
N,N-dimethylamphetamine	60	0.08%
Cathine	50	0.07%
Phendimetrazine	36	0.05%
Modafinil	34	0.05%
Benzphetamine	19	0.03%
Methcathinone	12	0.02%
Phenylpropanolamine**	12	0.02%
Diethylpropion	10	0.01%
Fenproporex	8	0.01%
Sibutramine	7	0.01%
Fenfluramine	5	0.01%
Propylhexedrine***	3	0.00%
Phenmetrazine	2	0.00%
Clobenzorex	1	0.00%
Total Stimulants	72,034	100.00%
Total Analyzed Items	748,272	

** Substance is an ingredient of many controlled pharmaceutical products and is often used as a cutting agent.*
*** Listed chemical.* ****Noncontrolled stimulant.*

Figure 2.5 Distribution of stimulants within region, January 2008–June 2008.



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 in 1998 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 2008's 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 2008 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 2008 through June 2008.

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 2008. 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.

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 2008. 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 2008 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%.

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

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 (Martinez)	✓
	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 (Santa Ana)	✓
	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 (Fort Lauderdale)**	✓
	Local	**Miami-Dade Police Department Crime Laboratory**	✓
	Local	Indian River Crime Laboratory (Fort Pierce)	✓
	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 (Indianapolis)	✓
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 (O'Fallon)	✓
	Local	St. Louis County Crime Laboratory (Clayton)	✓
	Local	**St. Louis Police Department**	✓
	Local	**South East Missouri Regional Crime Laboratory (Cape Girardeau)**	✓
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	✓
ND	State	North Dakota Crime Laboratory Division	✓
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**	✓
	Local	Washoe County Sheriff's Office Crime Laboratory (Reno)	
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 (Canton)	✓
	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**	✓
RI	State	Rhode Island Forensic Sciences 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)**	✓
VT	State	Vermont Forensic Laboratory	
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 December 2008.

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 2008.
- 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.

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:

Office of Diversion Control. (2008). *National Forensic Laboratory Information System: Midyear Report 2008.* Washington, DC: U.S. Drug Enforcement Administration.

Obtaining Additional Copies of This Report

Electronic copies of this report can be downloaded from the NFLIS Web site at http://www.deadiversion.usdoj.gov/nflis.

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

Winter 2008