

Drug Enforcement Administration
Office of Diversion Control



NFLIS

NATIONAL FORENSIC LABORATORY INFORMATION SYSTEM

Midyear Report 2009



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Highlights

- An estimated 906,641 drug items were analyzed by state and local laboratories in the United States from January 1, 2009, through June 30, 2009. These drug items were identified in an estimated 558,128 distinct cases.
- Cannabis/THC was the most frequently identified drug item (311,640), followed by cocaine (238,699), methamphetamine (70,593), and heroin (59,125). The four most frequently identified drugs accounted for 75% of all analyzed drug items.
- Overall, there was less than a 1% decrease in the total number of drug items analyzed by state and local laboratories from the first half of 2008 to the first half of 2009, from 914,670 to 906,641 items.
- Nationally, hydrocodone, oxycodone, alprazolam, clonazepam, and morphine increased significantly from January 2001 through June 2009 ($p < .05$). During this same time, diazepam decreased significantly.
- Regionally, from January 2001 through June 2009, hydrocodone, clonazepam, and morphine reports per 100,000 persons (aged 15 or older) increased significantly in all four regions. Reports of oxycodone and alprazolam per 100,000 persons increased significantly in the Midwest, Northeast, and South. Reports of diazepam per 100,000 persons increased significantly in the Midwest, but decreased significantly in the South.
- Almost three quarters of identified narcotic analgesics were hydrocodone or oxycodone. Alprazolam accounted for 65% of identified benzodiazepines. MDMA accounted for 58% and BZP accounted for 33% of identified club drugs.
- From the first half of 2001 through the first half of 2009, cannabis/THC and heroin reports per 100,000 persons decreased significantly in the South, and cocaine reports per 100,000 persons decreased significantly in the Midwest. During this same time, reports of methamphetamine per 100,000 persons increased significantly in the Northeast. MDMA reports per 100,000 persons increased significantly in the Midwest and West, but decreased significantly in the Northeast.
- Cannabis/THC was the most frequently identified drug item in the Midwest (50%) and West (30%), and cocaine was the most frequently identified drug item in the Northeast (33%) and South (31%).
- Nationwide, cannabis/THC and methamphetamine exhibited significant decreasing trends between January 2001 and June 2009. During this same time, reports of MDMA increased significantly.

FT-IR
3,4-Methylenedioxyamphetamine
Diamond ATR 3 Bounce

Introduction

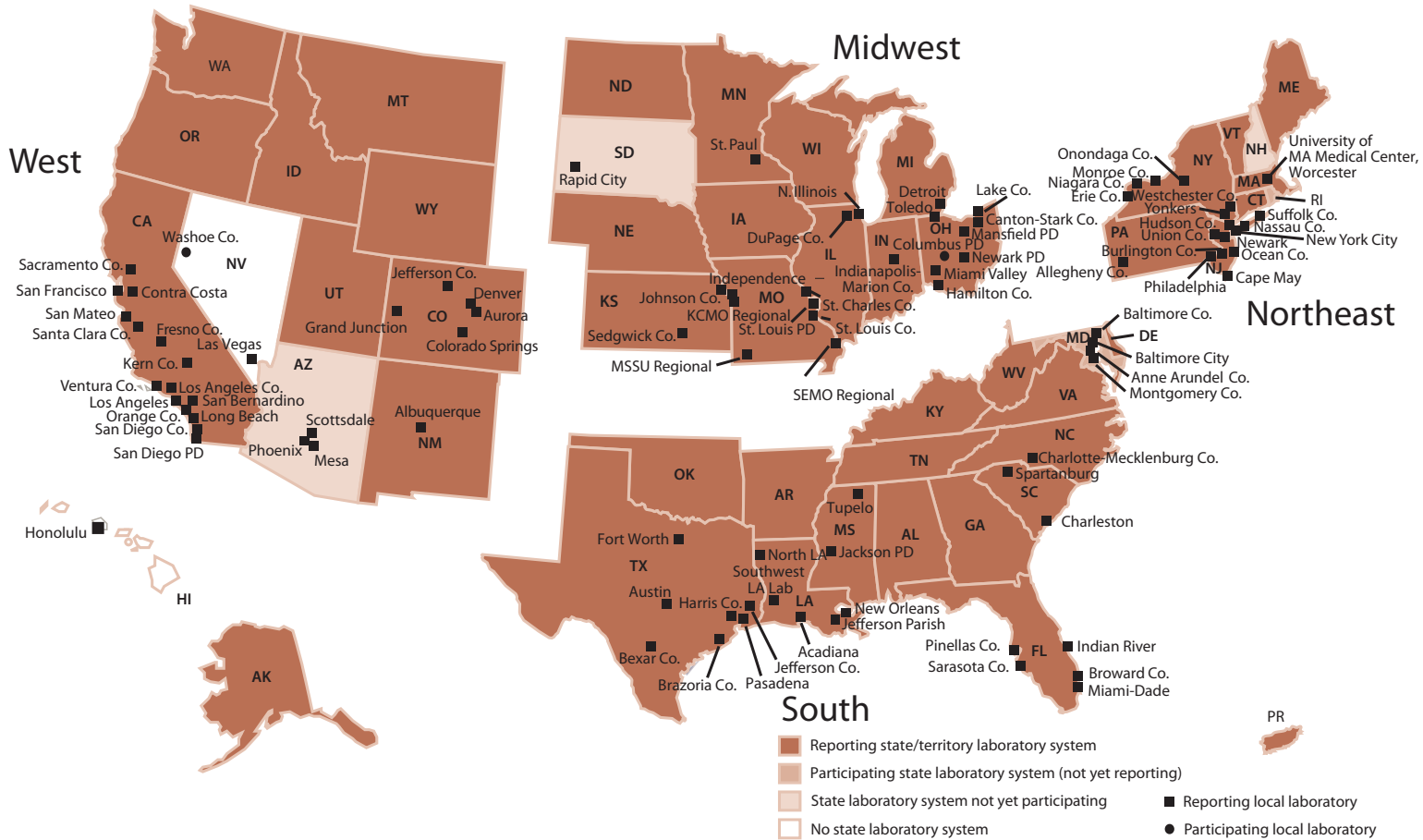
The National Forensic Laboratory Information System (NFLIS) is a program of the Drug Enforcement Administration (DEA), Office of Diversion Control. NFLIS systematically collects results from drug analyses conducted by state and local forensic laboratories. These laboratories analyze controlled and noncontrolled 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 August 2009, NFLIS included 47

state systems, 94 local or municipal laboratories/laboratory systems, and 1 territorial laboratory, representing a total of 281 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 that perform drug chemistry analyses.

This report provides the results of substances analyzed by state and local laboratories from January 2009 through June 2009, 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 laboratories from January 2009 through June 2009 (see Table 1.1). National drug case estimates are also presented (Table 1.2). In addition, semiannual trends are presented for selected drugs from January 2001 through June 2009. 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 DRUGS¹
Estimated number and percentage of total analyzed drug items, January 2009–June 2009.

Drug	National		West		Midwest		Northeast		South	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Cannabis/THC	311,640	34.37%	43,712	29.73%	103,408	50.47%	47,920	30.66%	116,599	29.26%
Cocaine	238,699	26.33%	23,377	15.90%	39,182	19.13%	52,244	33.43%	123,896	31.10%
Methamphetamine	70,593	7.79%	37,480	25.49%	10,037	4.90%	675	0.43%	22,400	5.62%
Heroin	59,125	6.52%	7,283	4.95%	14,781	7.21%	21,153	13.53%	15,907	3.99%
Hydrocodone	23,467	2.59%	2,817	1.92%	4,379	2.14%	2,192	1.40%	14,079	3.53%
Oxycodone	23,198	2.56%	2,947	2.00%	3,651	1.78%	5,737	3.67%	10,864	2.73%
Alprazolam	18,610	2.05%	1,046	0.71%	3,008	1.47%	2,892	1.85%	11,664	2.93%
MDMA	12,096	1.33%	3,058	2.08%	2,308	1.13%	1,733	1.11%	4,997	1.25%
1-Benzylpiperazine (BZP)	6,147	0.68%	695	0.47%	1,760	0.86%	620	0.40%	3,072	0.77%
Methadone	5,482	0.60%	967	0.66%	870	0.42%	1,112	0.71%	2,533	0.64%
Clonazepam	5,214	0.58%	573	0.39%	1,022	0.50%	1,216	0.78%	2,404	0.60%
Noncontrolled, non-narcotic ²	5,200	0.57%	*	*	*	*	1,155	0.74%	*	*
Diazepam	4,148	0.46%	704	0.48%	891	0.44%	476	0.30%	2,077	0.52%
Buprenorphine	3,914	0.43%	275	0.19%	332	0.16%	1,629	1.04%	1,678	0.42%
Morphine	3,829	0.42%	800	0.54%	901	0.44%	633	0.41%	1,496	0.38%
Amphetamine	3,216	0.35%	369	0.25%	876	0.43%	391	0.25%	1,579	0.40%
Pseudoephedrine ³	2,950	0.33%	110	0.08%	1,271	0.62%	0	0.00%	1,568	0.39%
Phencyclidine (PCP)	2,803	0.31%	368	0.25%	152	0.07%	1,372	0.88%	911	0.23%
Carisoprodol	2,436	0.27%	*	*	*	*	79	0.05%	1,782	0.45%
Codeine	2,305	0.25%	344	0.23%	288	0.14%	297	0.19%	1,376	0.35%
Psilocin	1,762	0.19%	568	0.39%	400	0.20%	234	0.15%	560	0.14%
Methylphenidate	1,326	0.15%	185	0.13%	321	0.16%	268	0.17%	552	0.14%
Hydromorphone	1,120	0.12%	142	0.10%	192	0.09%	183	0.12%	601	0.15%
Lorazepam	1,060	0.12%	159	0.11%	283	0.14%	233	0.15%	385	0.10%
Cyclobenzaprine	706	0.08%	*	*	179	0.09%	97	0.06%	341	0.09%
<i>Top 25 Total</i>	811,046	89.46%	129,522	88.08%	190,695	93.08%	144,543	92.48%	346,285	86.91%
<i>All Other Analyzed Items</i>	95,595	10.54%	17,529	11.92%	14,174	6.92%	11,746	7.52%	52,145	13.09%
<i>Total Analyzed Items⁴</i>	906,641	100.00%	147,051	100.00%	204,870	100.00%	156,289	100.00%	398,430	100.00%

MDMA=3,4-Methylenedioxymethamphetamine

* The estimate for this drug does not meet standards of precision and reliability. See Appendix A for a more detailed methodology discussion.

¹ Sample n's and 95% confidence intervals for all estimates are available upon request.

² As reported by NFLIS laboratories, with no specific drug name provided.

³ Includes items from a small number of laboratories that do not specify between pseudoephedrine and ephedrine.

⁴ Numbers and percentages 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 2009–June 2009.

Drug	Number	Percent
Cannabis/THC	221,949	39.77%
Cocaine	181,400	32.50%
Methamphetamine	50,106	8.98%
Heroin	43,583	7.81%
Hydrocodone	19,238	3.45%
Oxycodone	17,897	3.21%
Alprazolam	15,342	2.75%
MDMA	8,249	1.48%
Methadone	4,515	0.81%
Clonazepam	4,481	0.80%
Noncontrolled, non-narcotic ¹	3,759	0.67%
1-Benzylpiperazine (BZP)	3,632	0.65%
Diazepam	3,425	0.61%
Buprenorphine	3,306	0.59%
Morphine	3,083	0.55%
Amphetamine	2,691	0.48%
Phencyclidine (PCP)	2,462	0.44%
Pseudoephedrine ²	2,119	0.38%
Carisoprodol	2,114	0.38%
Codeine	1,888	0.34%
Psilocin	1,471	0.26%
Methylphenidate	1,088	0.20%
Hydromorphone	972	0.17%
Lorazepam	896	0.16%
Cyclobenzaprine	679	0.12%
<i>Top 25 Total</i>	600,346	107.56%
<i>All Other Drugs</i>	70,396	12.61%
<i>Total All Drugs³</i>	670,742	120.18% ⁴

MDMA=3,4-Methylenedioxyamphetamine

¹ As reported by the NFLIS laboratories, with no specific drug names provided.

² Includes cases from a small number of laboratories that do not specify between pseudoephedrine and ephedrine.

³ Numbers and percentages may not sum to totals due to rounding.

⁴ Multiple drugs can be reported within a single case, so the cumulative percentage exceeds 100%. The estimated national total of distinct case percentages is based on 558,128 distinct cases analyzed during January through June 2009.

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 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 2009–June 2009.

Drug	Number	Percent
Cocaine	7,967	26.32%
Cannabis/THC	6,641	21.94%
Methamphetamine	3,336	11.02%
Heroin	1,909	6.30%
MDMA	847	2.80%
Oxycodone	593	1.96%
BZP	459	1.52%
Noncontrolled, non-narcotic drug	345	1.14%
Hydrocodone	203	0.67%
Phencyclidine (PCP)	179	0.59%
<i>All Other Drugs</i>	7,793	25.74%
<i>Total Analyzed Items</i>	30,272	100.00%

NATIONAL AND REGIONAL DRUG TRENDS

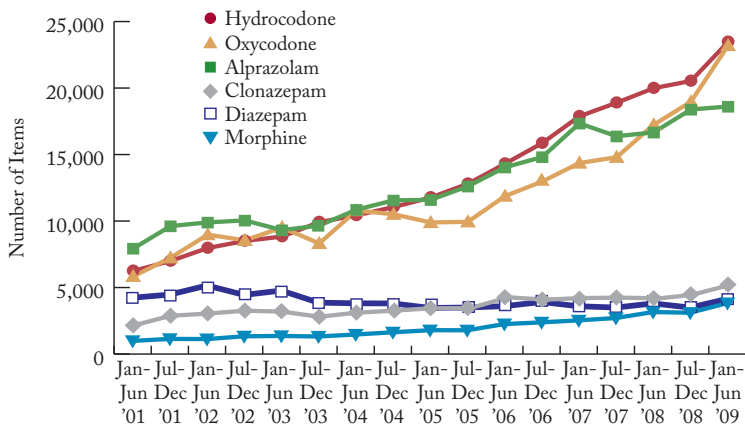
National prescription drug trends

From January 2001 through June 2009, the total analyzed items increased less than 1% from 904,412 to 906,641 items. From the first half of 2008 through the first half of 2009, the total analyzed items decreased by nearly 1% from 914,670 to 906,641 items.

Figure 1.1 presents national 6-month trends for the estimated number of hydrocodone, oxycodone, alprazolam, clonazepam, diazepam, and morphine items analyzed by state and local laboratories from January 2001 through June 2009. Nationally, reports of hydrocodone, oxycodone, alprazolam, clonazepam, and morphine experienced significant increases during this time ($p < .05$). Reports more than tripled for hydrocodone (from 6,251 to 23,467 items) and nearly quadrupled for oxycodone (from 5,844 to 23,198 items). Reports more than doubled for alprazolam (from 7,937 to 18,610 items) and clonazepam (from 2,149 to 5,214 items), while reports of morphine nearly quadrupled (from 987 to 3,829 items). Reports of diazepam decreased significantly from January 2001 through June 2009 (from 4,234 to 4,148 items).

During the past year (from the first half of 2008 through the first half of 2009), hydrocodone reports increased by nearly a fifth

Figure 1.1 National trend estimates for selected prescription drugs, January 2001–June 2009.

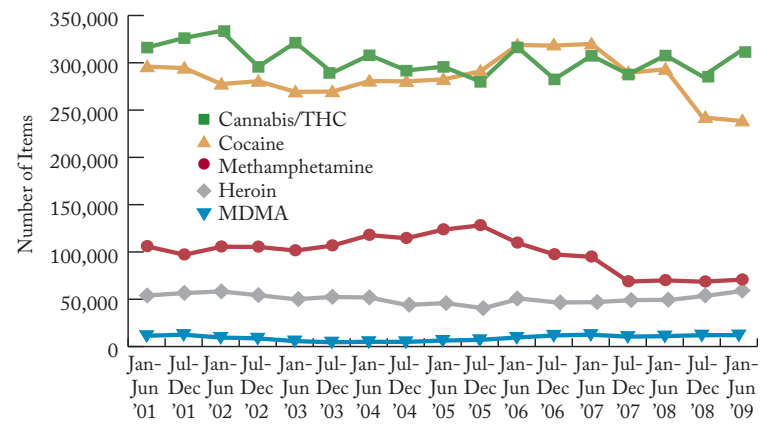


(from 19,992 to 23,467 items), reports of oxycodone increased by a third (from 17,241 to 23,198 items), reports of clonazepam increased by nearly a quarter (from 4,189 to 5,214 items), and morphine reports increased by a fifth (from 3,158 to 3,829 items). Reports of alprazolam (from 16,669 to 18,610 items) and diazepam (from 3,805 to 4,148 items) increased by about 10% during the past year.

Other national drug trends

Figure 1.2 presents national trends for cannabis/THC, cocaine, methamphetamine, heroin, and MDMA. From January 2001 through June 2009, cannabis/THC and methamphetamine exhibited significant decreasing trends, and MDMA exhibited a significant increasing trend ($p < .05$). From the first half of 2005 through the first half of 2009, methamphetamine reports decreased by 43% (from 123,635 to 70,593 items), and MDMA reports nearly doubled (from 6,334 to 12,096 items). Reports of cocaine and heroin did not significantly change from January 2001 through June 2009, although cocaine reports decreased from 295,923 to 238,699 items and heroin reports increased from 53,889 to 59,125 items.

Figure 1.2 National trend estimates for other selected drugs, January 2001–June 2009.



Regional prescription drug trends

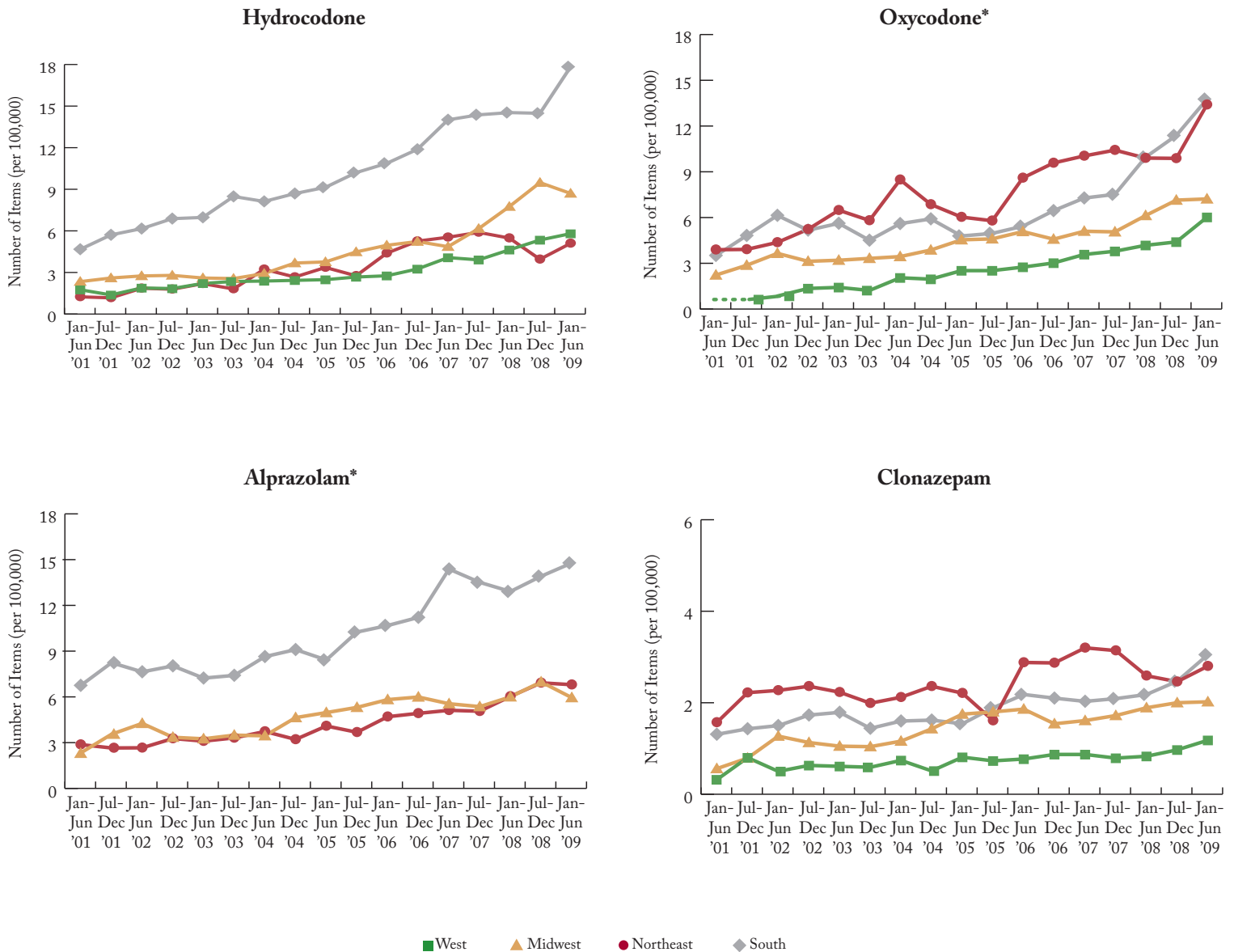
Figure 1.3 shows regional trends per 100,000 persons aged 15 or older for hydrocodone, oxycodone, alprazolam, clonazepam, diazepam, and morphine from January 2001 through June 2009. During this time, reports of hydrocodone, clonazepam, and morphine increased significantly in all census regions ($p < .05$). Reports of oxycodone and alprazolam increased significantly in the Midwest, Northeast, and South, while reports of diazepam increased significantly in the Midwest and decreased significantly in the South.

During the past year (from the first half of 2008 through the first half of 2009), hydrocodone reports increased by almost a quarter in both the West (from 4.6 to 5.8 items per 100,000

persons) and South (from 14.5 to 17.8 items per 100,000 persons). Oxycodone reports in the past year increased by more than a third in the West (from 4.2 to 6.0 items per 100,000 persons), South (from 10.0 to 13.8 items per 100,000 persons), and Northeast (from 9.9 to 13.4 items per 100,000 persons), and by almost a fifth in the Midwest (from 6.1 to 7.2 items per 100,000 persons). Reports of alprazolam increased by 13% in the Northeast (from 6.0 to 6.8 items per 100,000 persons) and by 15% in the South (from 12.9 to 14.8 items per 100,000 persons).

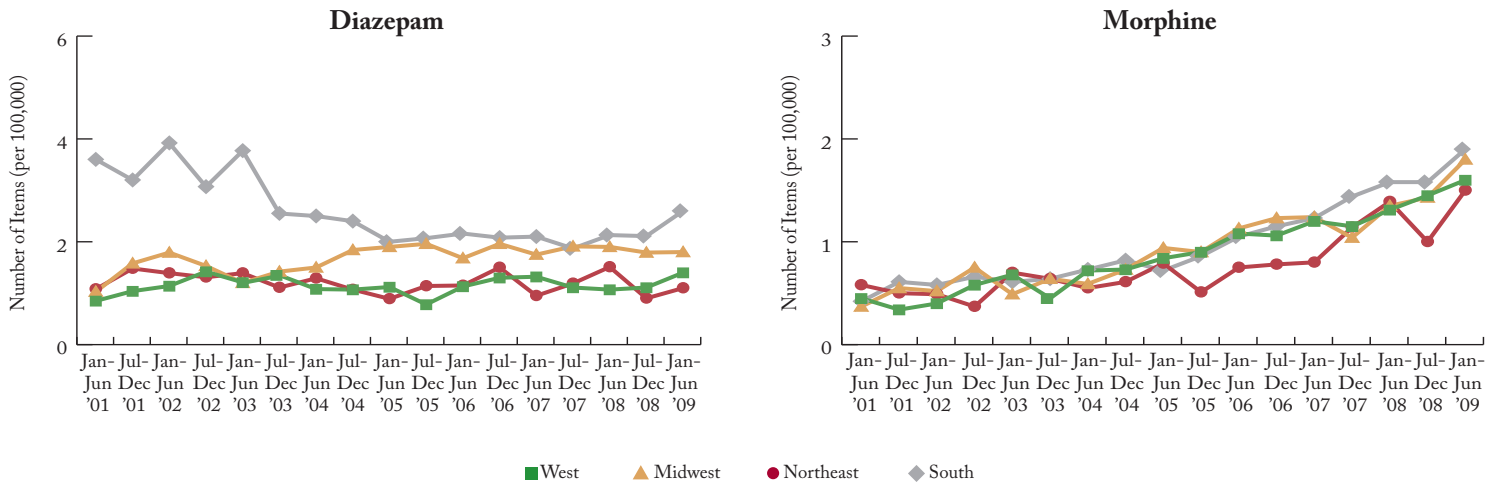
From January 2008 through June 2009, reports of clonazepam increased by more than a third in the West (from 0.8 to 1.2 items per 100,000 persons) and South (from 2.2 to 3.0 items per 100,000 persons). Diazepam reports increased in the past year by more than a quarter in the West (from 1.1 to 1.4 items per

Figure 1.3 Regional trends in selected prescription drugs reported per 100,000 persons aged 15 or older, January 2001–June 2009.



*A dashed line or the absence of a trend line indicates estimates did not meet the criteria for precision or reliability. See Appendix A for a more detailed methodology discussion.

Figure 1.3 Regional trends in selected prescription drugs reported per 100,000 persons aged 15 or older, January 2001–June 2009 (continued).



100,000 persons) by almost a quarter in the South (from 2.1 to 2.6 items per 100,000 persons), and they decreased by a quarter in the Northeast (from 1.5 to 1.1 items per 100,000 persons). During this same time, reports of morphine increased by more than a quarter in the Midwest (from 1.4 to 1.8 items per 100,000 persons), by almost a quarter in the West (from 1.3 to 1.6 items per 100,000 persons), and by nearly fifth in the South (from 1.6 to 1.9 items per 100,000 persons).

Other regional drug trends

Figure 1.4 presents regional trends per 100,000 persons aged 15 or older for cannabis/THC, cocaine, methamphetamine, heroin, and MDMA. From January 2001 through June 2009, reports of cannabis/THC and heroin decreased significantly in the South, while cocaine reports decreased significantly in the Midwest ($p < .05$). During this same time, reports of methamphetamine increased significantly in the Northeast. MDMA reports increased significantly in both the West and Midwest, but decreased significantly in the Northeast.

During the past year (from the first half of 2008 through the first half of 2009), there was little change in reports of cannabis/THC, with increases or decreases of 7% or less in each region. During this same time, however, reports of cocaine decreased by a quarter in the West (from 66.5 to 47.8 items per 100,000 persons) and by about a fifth in the Midwest (from 93.5 to 77.5 items per 100,000 persons) and South (from 195.0 to 156.9 items per 100,000 persons). Reports of heroin increased in the past year by more than a third in the Midwest (from 20.9 to 29.2 items per 100,000 persons) and by almost a fifth in the West (from 12.6 to 14.9 items per 100,000 persons) and Northeast (from 41.9 to 49.5 items per 100,000 persons), while reports of MDMA doubled in the Northeast (from 1.9 to 4.1 items per 100,000 persons). Reports of methamphetamine increased by nearly a fifth in the South from the first half of 2008 through the first half of 2009 (from 23.7 to 28.4 items per 100,000 persons). However, methamphetamine reports in the West decreased by a third from January 2007 through June 2009 (from 118.8 to 76.6 items per 100,000 persons).

Figure 1.4 Regional trends in other selected drugs reported per 100,000 persons aged 15 or older, January 2001–June 2009.

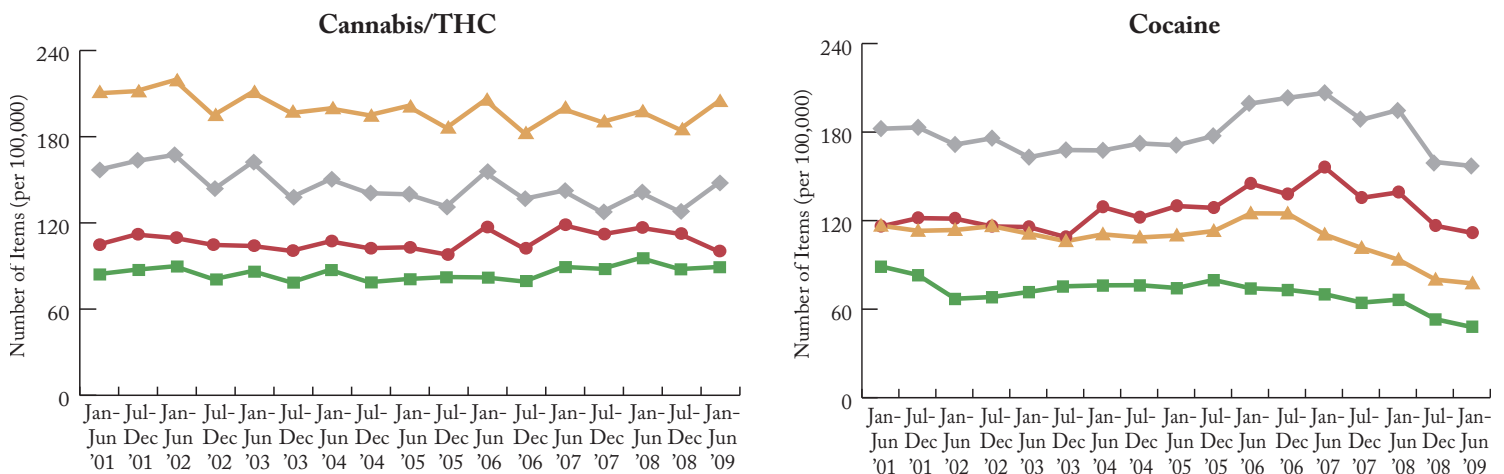
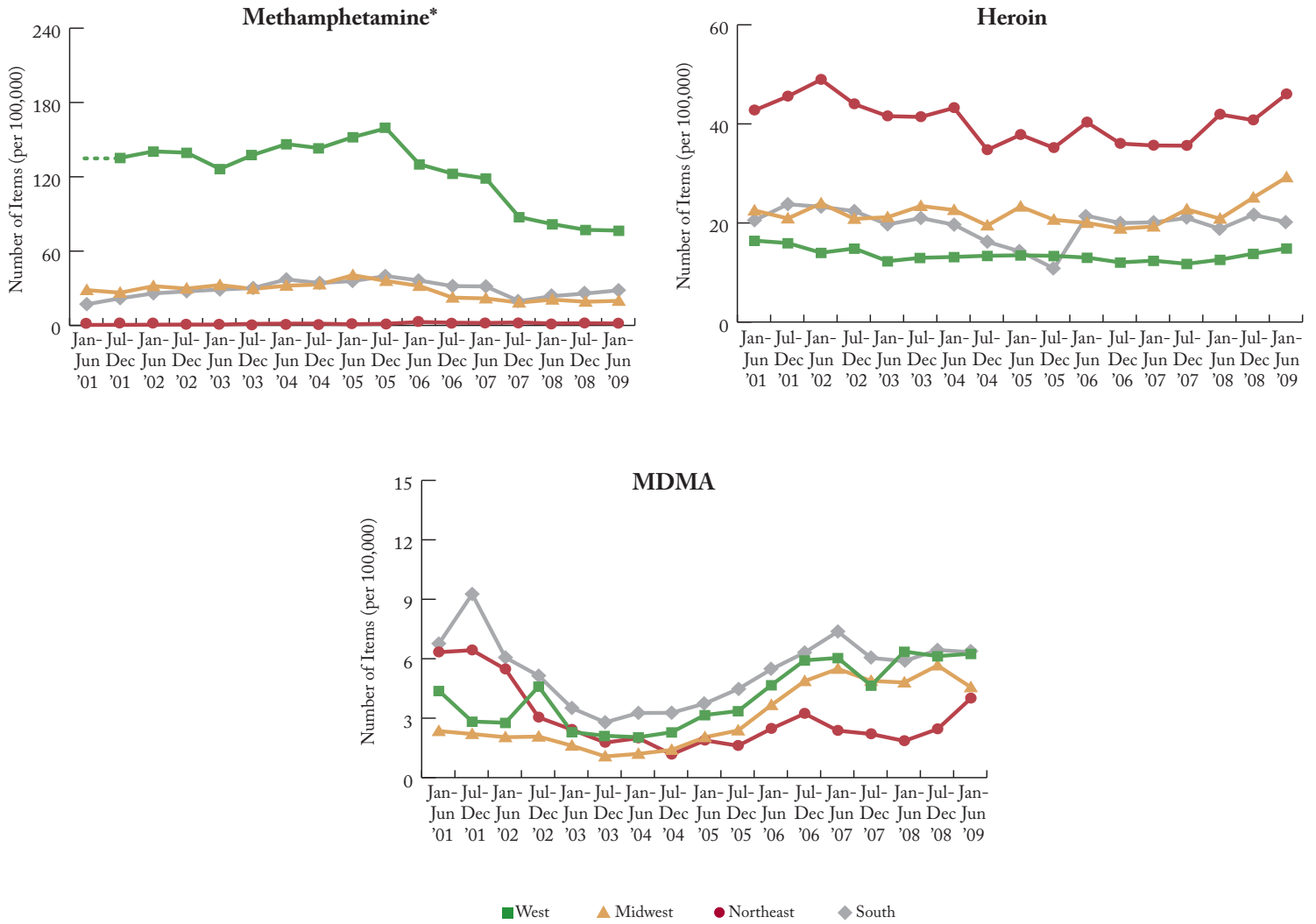


Figure 1.4 Regional trends in other selected drugs reported per 100,000 persons aged 15 or older, January 2001–June 2009 (*continued*).



*A dashed line indicates estimates did not meet the criteria for precision or reliability. See Appendix A for a more detailed methodology discussion.



Section 2: Major Drug Categories

This section presents results for major drug categories reported by NFLIS laboratories from January 2009 through June 2009. 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. The data were weighted to provide national and regional estimates. The data presented in Section 2 are not weighted and are only representative of those laboratories that provided 3 or more months of data during the first 6 months of 2009. During this 6-month period, 774,656 analyzed drug items were reported by NFLIS laboratories.

Table 2.1 NARCOTIC ANALGESICS
Number and percentage of total identified narcotic analgesics in the United States, January 2009–June 2009.

Analgesic	Number	Percent
Hydrocodone	20,843	37.16%
Oxycodone	19,740	35.20%
Methadone	4,372	7.80%
Morphine	3,203	5.71%
Buprenorphine	3,112	5.55%
Codeine	1,761	3.14%
Hydromorphone	976	1.74%
Propoxyphene	669	1.19%
Tramadol*	557	0.99%
Fentanyl	256	0.46%
Oxymorphone	150	0.27%
Opium	142	0.25%
Meperidine	142	0.25%
Dihydrocodeine	133	0.24%
Pentazocine	28	0.05%
Butorphanol	2	0.00%
Nalbuphine*	1	0.00%
<i>Total Narcotic Analgesics</i>	<i>56,087</i>	<i>100.00%</i>
<i>Total Analyzed Items</i>	<i>774,656</i>	

*Noncontrolled narcotic analgesic.

Figure 2.1 Distribution of narcotic analgesics, by region, January 2009–June 2009.

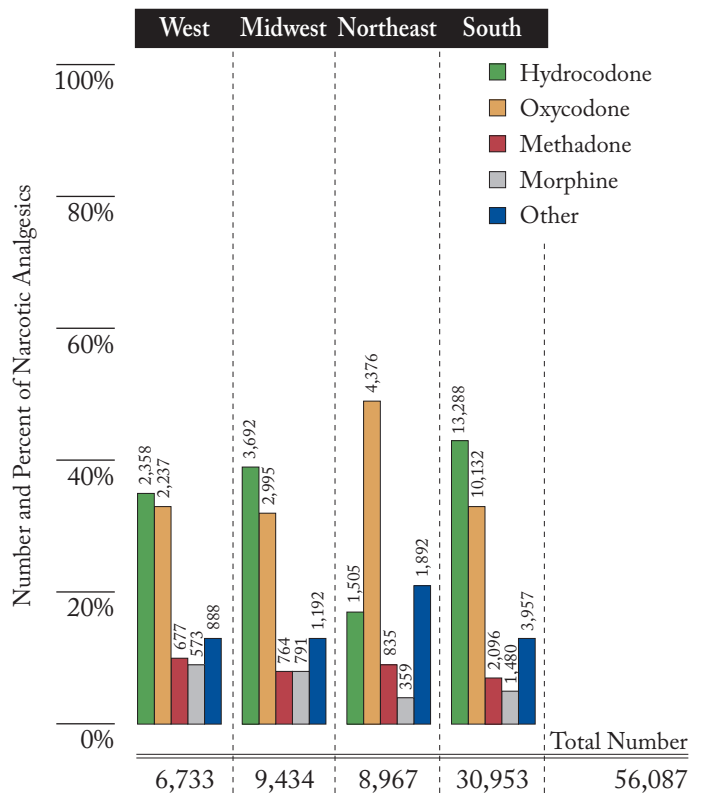
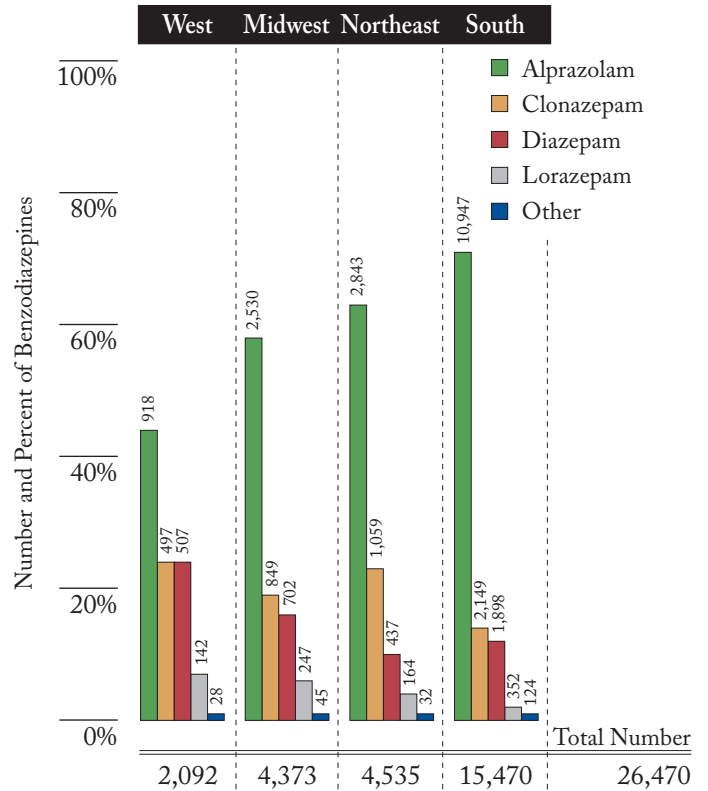


Table 2.2 BENZODIAZEPINES

Number and percentage of total identified benzodiazepines in the United States, January 2009–June 2009.

Benzodiazepine	Number	Percent
Alprazolam	17,238	65.12%
Clonazepam	4,554	17.20%
Diazepam	3,544	13.39%
Lorazepam	905	3.42%
Temazepam	163	0.62%
Chlordiazepoxide	41	0.15%
Triazolam	13	0.05%
Midazolam	8	0.03%
Flunitrazepam	4	0.02%
<i>Total Benzodiazepines</i>	26,470	100.00%
<i>Total Analyzed Items</i>	774,656	

Figure 2.2 Distribution of benzodiazepines, by region, January 2009–June 2009.**Table 2.3** ANABOLIC STEROIDS

Number and percentage of total identified anabolic steroids in the United States, January 2009–June 2009.

Steroid	Number	Percent
Testosterone	534	49.13%
Stanozolol	138	12.70%
Methandrostenolone	131	12.05%
Nandrolone	85	7.82%
Anabolic steroids, not specified	57	5.24%
Oxandrolone	47	4.32%
Boldenone	38	3.50%
Oxymetholone	29	2.67%
Methyltestosterone	13	1.20%
Methenolone	8	0.74%
Drostanolone	2	0.18%
Fluoxymesterone	2	0.18%
Mesterolone	2	0.18%
Androstenedione	1	0.09%
<i>Total Anabolic Steroids</i>	1,087	100.00%
<i>Total Analyzed Items</i>	774,656	

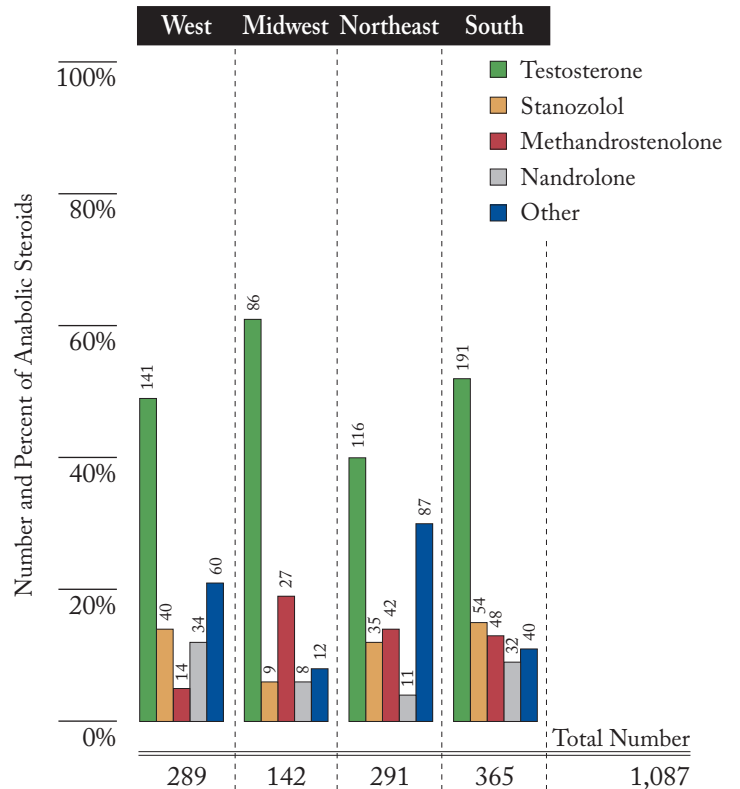
Figure 2.3 Distribution of anabolic steroids, by region, January 2009–June 2009.

Table 2.4 CLUB DRUGS

Number and percentage of total identified club drugs in the United States, January 2009–June 2009.

Club Drug	Number	Percent
MDMA	9,883	58.01%
1-Benzylpiperazine (BZP)	5,619	32.98%
TFMPP*	617	3.62%
Ketamine	551	3.23%
MDA	173	1.02%
GHB/GBL	158	0.93%
5-MeO-DIPT	23	0.13%
MDEA	13	0.08%
PMA	1	0.01%
Total Club Drugs	17,038	100.00%
Total Analyzed Items	774,656	

MDMA=3,4-Methylenedioxyamphetamine

TFMPP=1-(3-Trifluoromethylphenyl)piperazine

MDA=3,4-Methylenedioxyamphetamine

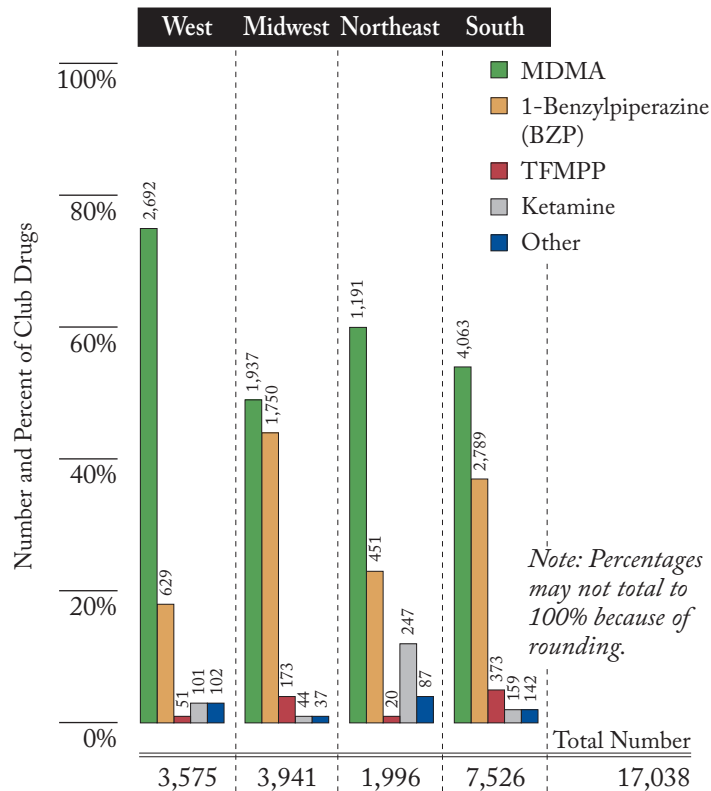
GHB/GBL=Gamma-hydroxybutyrate or Gamma-butyrolactone

5-MeO-DIPT=5-Methoxy-N,N-diisopropyltryptamine

MDEA=3,4-Methylenedioxy-N-ethylamphetamine

PMA=Paramethoxyamphetamine

*Noncontrolled club drug.

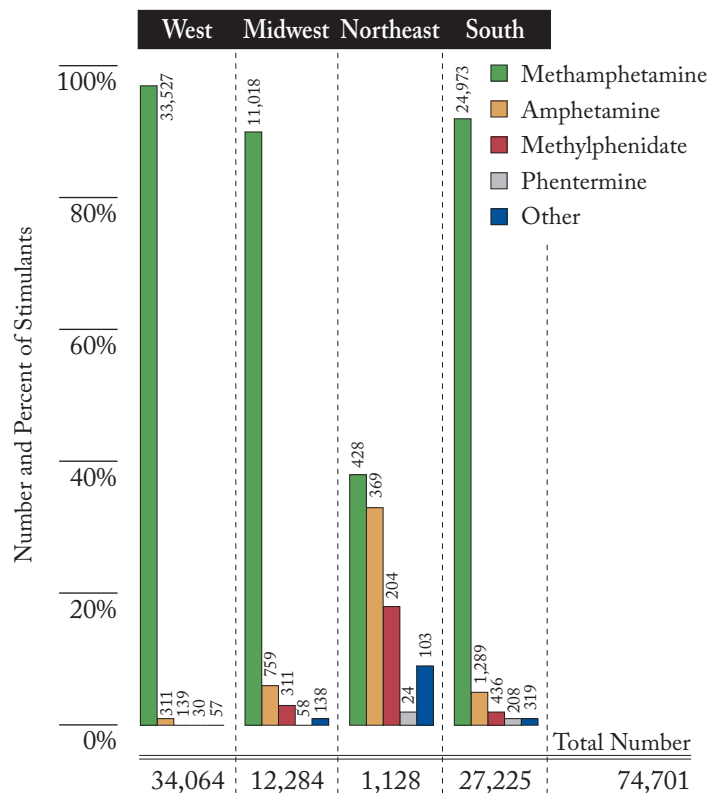
Figure 2.4 Distribution of club drugs, by region, January 2009–June 2009.**Table 2.5 STIMULANTS**

Number and percentage of total identified stimulants in the United States, January 2009–June 2009.

Stimulant	Number	Percent
Methamphetamine	69,946	93.63%
Amphetamine	2,728	3.65%
Methylphenidate	1,090	1.46%
Phentermine	320	0.43%
Ephedrine*	237	0.32%
Cathinone	152	0.20%
Modafinil	67	0.09%
N,N-dimethylamphetamine	45	0.06%
Phendimetrazine	29	0.04%
Benzphetamine	23	0.03%
Diethylpropion	14	0.02%
Sibutramine	13	0.02%
Cathine	12	0.02%
Methcathinone	7	0.01%
Phenylpropanolamine*	5	0.01%
Fenfluramine	3	0.00%
Fenproporex	3	0.00%
Pemoline	3	0.00%
Clobenzorex*	2	0.00%
Phenmetrazine	1	0.00%
Propylhexedrine**	1	0.00%
Total Stimulants	74,701	100.00%
Total Analyzed Items	774,656	

* Listed chemical.

**Noncontrolled stimulant.

Figure 2.5 Distribution of stimulants, by region, January 2009–June 2009.

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 (updated in 2002, 2004, and 2008) 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 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 in the sample that reported drug analysis data for 3 or more months during the first 6 months of 2009 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 2009 through June 2009.

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

For some drugs, such as cannabis/THC and cocaine, thousands of items are reported annually, allowing for reliable national prevalence estimates to be computed. For other drugs, reliable estimates cannot be computed because of a combination of low item counts and substantial variability in item counts between laboratories. Thus, a cutoff point for estimates was established.

The method for evaluating the precision and reliability of estimates was established using the relative standard error, or RSE, which is the ratio between the standard error of an estimate and the estimate itself. As a rule, drug estimates with an RSE greater than 50% were suppressed and not shown in the tables.

Earlier reports stated that the coefficient of variation, or CV, was the statistic used to evaluate the reliability of an estimate. The CV and the RSE both measure variation; however, the RSE

is usually expressed as a percentage, and the CV is usually expressed as a decimal.

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 2009. 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 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 2009 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 ($p < .05$). 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%.

Note that the trend analyses test for a linear trend based on a time series of semiannual estimates. The tests do not compare the most recent semiannual estimate to the estimate for the first half of 2001. Instead, the tests compare the trend across all time points. For example, it is possible for an increasing trend to be reported when the most recent semiannual estimate is less than the estimate for the first half of 2001 because the overall trend, across all time points, is increasing. It is also possible that the trend line does not fit the time series particularly well because the actual time series shows a curvilinear pattern. For example, if the estimates increased drastically during the early years of the time series but decreased in recent years, the linear trend test may detect an increasing trend, thus oversimplifying the actual pattern.

* For more information on this technique, see 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 County Sheriff's Department (4 sites)	✓
	Local	Los Angeles Police Department (2 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 (5 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	Indian River Crime Laboratory (Fort Pierce)	✓
	Local	Miami-Dade Police Department Crime Laboratory	✓
	Local	Palm Beach County Sheriff's Office Crime Laboratory (West Palm Beach)	✓
	Local	Pinellas County Forensic Laboratory (Largo)	✓
	Local	Sarasota County Sheriff's Office	✓
GA	State	Georgia State Bureau of Investigation (8 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 (4 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	State	Maryland State Police Forensic Sciences Division (3 sites)	✓
	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 (8 sites)	✓
	Local	Independence Police Department	✓
	Local	KCMO Regional Crime Laboratory (Kansas City)	✓
	Local	St. Charles County Criminalistics Laboratory (O'Fallon)	✓
	Local	St. Louis County Crime Laboratory (Clayton)	✓
	Local	St. Louis Police Department	✓

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 (3 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 (2 sites)	✓
	Local	Albuquerque Police Department	✓
NV	Local	Las Vegas Metropolitan Police Crime Laboratory	✓
	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 (6 sites)	✓
PA	State	Pennsylvania State Police Crime Laboratory (6 sites)	✓
	Local	Allegheny County Coroner's Office (Pittsburgh)	✓
	Local	Bucks County Crime Laboratory (Warminster)	✓
	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	Fort Worth Police Department Criminalistics Laboratory	✓
	Local	Harris County Medical Examiner's Office (Houston)	✓
	Local	Jefferson County Sheriff's Regional Crime Laboratory (Beaumont)	✓
	Local	Pasadena Police Department	✓
UT	State	Utah State Crime Laboratory (4 sites)	✓
VA	State	Virginia Department of 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 (4 sites)	✓

This list identifies participating and reporting laboratories as of July 2009.

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; and
- 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) study.

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 the DEA's STRIDE. STRIDE includes data from DEA laboratories across the country. The STRIDE data are shown separately in this report. Efforts are under way to enroll additional federal laboratories.
- 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.

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