YEAR 2000 ANNUAL REPORT

NFLIS

NATIONAL

FORENSIC

LABORATORY

INFORMATION

SYSTEM

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INTRODU

The U.S. Drug Enforcement Administration (DEA) is responsible for scheduling legal and illegal drugs and for enforcement of the Nation's drug laws. Fulfillment of these responsibilities requires the development of information on the prevalence of common drugs and the emergence of new drugs on America's streets. ***The National Forensic Laboratory Information System (NFLIS)*** is a U.S. DEA-sponsored project that systematically collects results from solid-dosage drug analyses conducted by State and local forensic laboratories across the country. The results approximate the drug evidence seized by law enforcement agents, although it must be understood that local policy and practice determine when and whether evidence will be submitted to a lab and subsequently analyzed. (For example, evidence may be submitted and analyzed only if a case goes to trial.) Despite this and other limitations (see Appendix A), the centralized data system that is NFLIS provides a key national-level source of data for increasing our knowledge and understanding of the changes and trends in the Nation's drug problem. The information forthcoming from NFLIS will provide a major resource for supporting drug control and enforcement efforts and drug policy initiatives throughout the country.

Participating Labs by Census Region as of May 2001

- Reporting State Lab System
- Enlisted State Lab System
- No Participating State Lab System
- Reporting Local Lab
- Enlisted Local Lab
- State Lab

The Research Triangle Institute (RTI) began planning and implementing NFLIS in September 1997. A survey of 308 State and local forensic laboratories was conducted that identified 276 individual labs that routinely perform solid-dosage drug analyses. A sample of 31 State lab systems and 31 local labs (a total of 165 individual labs) was chosen as the initial sample for the NFLIS system. This sample has recently been expanded to include recruiting a total of

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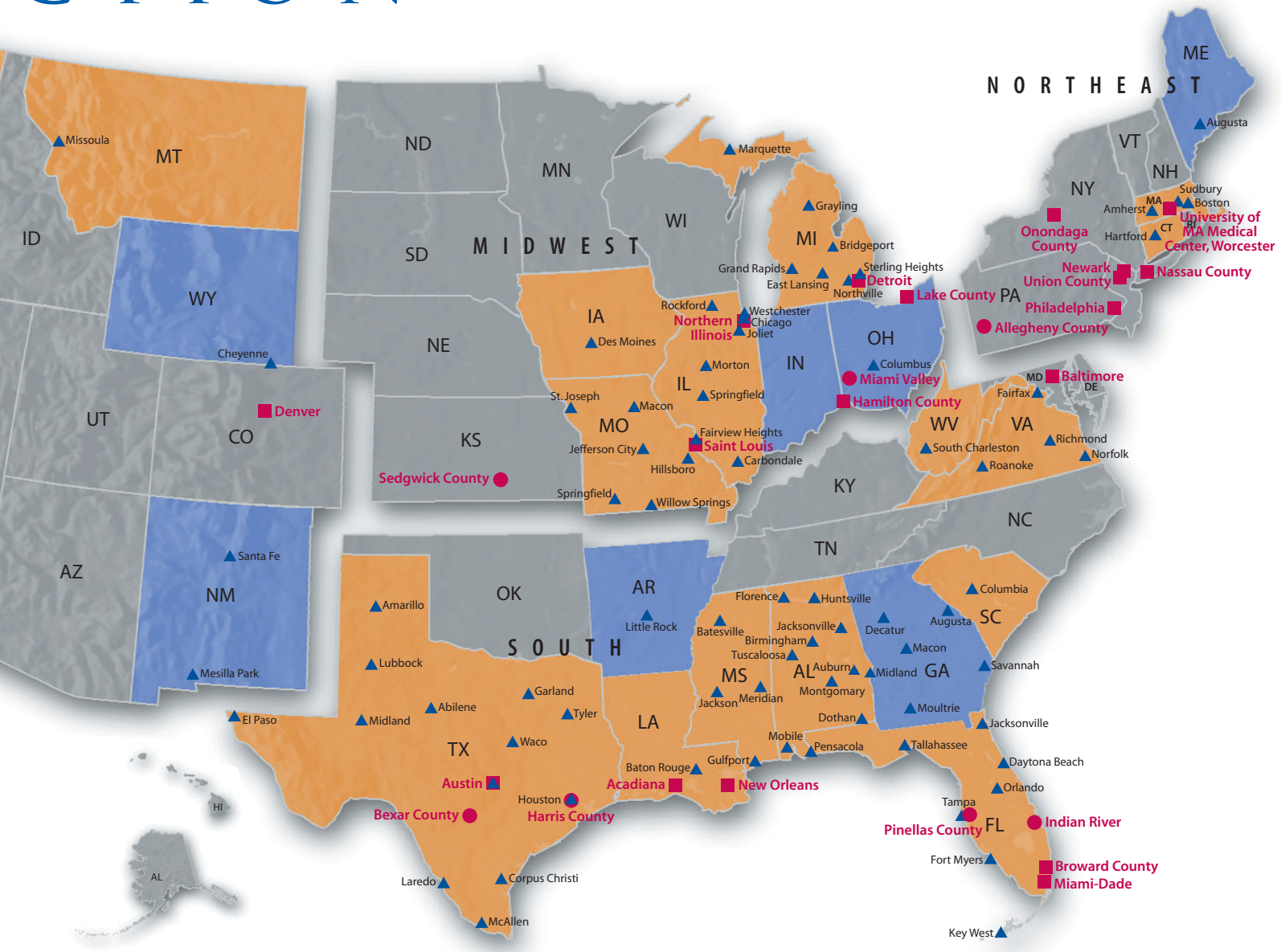


50 State lab systems. The long-term goal has been set to include all State and local labs in NFLIS. Enlistment of labs for NFLIS began in 1998 and as of August 2001, agreements for data acquisition have been reached with 26 State lab systems and 34 local labs (a total of 142 individual labs). Information on participating labs is included in Appendix B.

This initial NFLIS Annual Report contains results of the analyzed items submitted to NFLIS from January to December 2000. Data from 18 State lab systems and 20 local labs (a total of 103 individual labs) that provided data for the entire year are included in this report. Most of the reporting laboratories are located in the South or Midwest and, thus, these two regions are disproportionately represented in the current data. Further, although the findings presented in this report represent all analyses submitted to NFLIS by the reporting labs, it should be kept in mind that these laboratories do not necessarily reflect their respective regions or the Nation. Statistically representative regional and national estimates of drug analysis results are expected to be available in 2001 when a sufficient number of labs will be regularly reporting their data.

The following sections provide results for the most frequently identified drugs, selected drugs of interest, drugs found in combination, and quarterly trends for selected categories of drugs. Results presented in this report are for 532,412 individual solid dosage drug items analyzed between January 1, 2000, and December 31, 2000. (Results were received for 552,382 items, including 19,970 for which the result was "no analysis"; these items were excluded from the analyses presented in this report.) Additionally, there were 5,820 items that included at least two distinct substances. Unless otherwise specified, the results reported are for the first substance identified in an item.

Section 1

25 MOST FREQUENT

In 2000, 517 distinct substances were identified among the analysis results submitted by reporting labs to NFLIS.

There were 517 distinct substances identified among the analysis results submitted by the reporting labs. The 25 most frequently identified substances are presented by census region and in total in Table 1.1. The top four drugs—cannabis/THC, cocaine, methamphetamine, and heroin—make up almost 88% of these results. Cannabis/THC and cocaine (including powder

Table 1.1 **25 Most Frequently Identified Drugs**
Number and percentages of total identified drugs

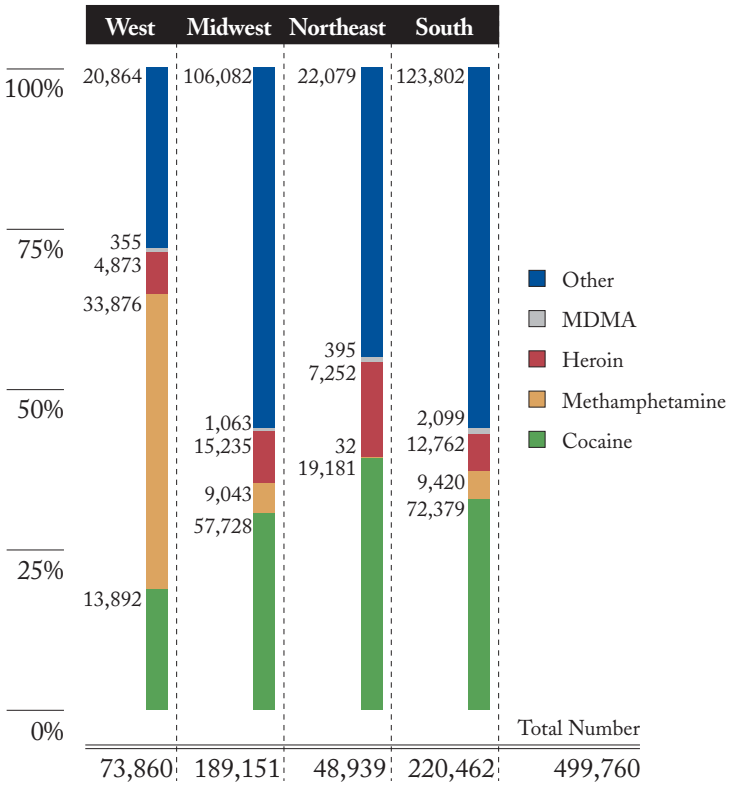
Drug	West		Midwest		Northeast		South		Total	
	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage
Cannabis	12,356	16.73%	90,625	47.91%	16,324	33.36%	91,937	41.70%	211,242	39.68%
Cocaine	13,892	18.81%	57,728	30.52%	19,181	39.19%	72,379	32.83%	163,180	30.65%
Methamphetamine	33,876	45.87%	9,043	4.78%	32	0.07%	9,420	4.27%	52,371	9.84%
Heroin	4,873	6.60%	15,235	8.05%	7,252	14.82%	12,762	5.79%	40,122	7.54%
Non-controlled Non-narcotic Drug	11	0.01%	2,790	1.48%	1,623	3.32%	846	0.38%	5,270	0.99%
MDMA	355	0.48%	1,063	0.56%	395	0.81%	2,099	0.95%	3,912	0.73%
Alprazolam	49	0.07%	576	0.30%	375	0.77%	2,120	0.96%	3,120	0.59%
Hydrocodone	256	0.35%	306	0.16%	114	0.23%	2,338	1.06%	3,014	0.57%
Diazepam	128	0.17%	550	0.29%	164	0.34%	1,709	0.78%	2,551	0.48%
Oxycodone	67	0.09%	328	0.17%	236	0.48%	1,485	0.67%	2,116	0.40%
PCP	129	0.17%	831	0.44%	333	0.68%	230	0.10%	1,523	0.29%
Pseudoephedrine	344	0.47%	752	0.40%	4	0.01%	296	0.13%	1,396	0.26%
Amphetamine	218	0.30%	332	0.18%	22	0.04%	814	0.37%	1,386	0.26%
Clonazepam	50	0.07%	170	0.09%	175	0.36%	772	0.35%	1,167	0.22%
LSD	164	0.22%	377	0.20%	38	0.08%	579	0.26%	1,158	0.22%
Codeine	101	0.14%	281	0.15%	85	0.17%	459	0.21%	926	0.17%
Acetaminophen	18	0.02%	227	0.12%	20	0.04%	652	0.30%	917	0.17%
Psilocin	266	0.36%	269	0.14%	20	0.04%	186	0.08%	741	0.14%
Methylphenidate	19	0.03%	264	0.14%	28	0.06%	326	0.15%	637	0.12%
Ketamine	27	0.04%	216	0.11%	111	0.23%	227	0.10%	581	0.11%
Propoxyphene	19	0.03%	187	0.10%	20	0.04%	344	0.16%	570	0.11%
Testosterone	16	0.02%	146	0.08%	39	0.08%	325	0.15%	526	0.10%
Carisoprodol	16	0.02%	52	0.03%	8	0.02%	404	0.18%	480	0.09%
Morphine	66	0.09%	143	0.08%	37	0.08%	213	0.10%	459	0.09%
Ephedrine	34	0.05%	191	0.10%	3	0.01%	167	0.08%	395	0.07%
Total	67,350	91.14%	182,682	96.58%	46,639	95.33%	203,089	92.11%	499,760	93.89%
Total analyzed items										532,412

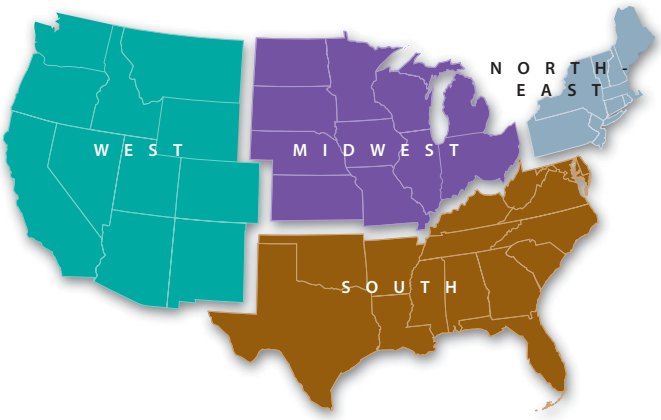
LY IDENTIFIED DRUGS

and "crack") dominate the results, comprising nearly 40% and 31%, respectively, of the analyzed items. Ten percent of the items were identified as methamphetamine and heroin constituted about 8% of the analyzed items. A variety of other substances is shown in Table 1.1. While none of these other substances represents more than 1% of the total number of analyzed items, these substances have appeared in the top 25 drugs in most of the quarters in year 2000.

Figure 1.1 shows the distribution of cocaine, methamphetamine, heroin, and MDMA by census region. (Cannabis, the most frequently identified drug overall, is included with "Other" in these charts.) There was some regional variation among the reporting labs, although it must be remembered that the labs are not necessarily representative of their regions. The West region is distinctive, reporting much more methamphetamine and much less cocaine than the other three regions. Heroin is more likely to have been reported by labs in the Northeast than in the other regions. And methamphetamine is identified much less often than in the Northeast than in any other regions. Finally, MDMA was more likely to be reported by labs in the Midwest and South than by those in the Northeast and West.

Figure 1.1 Distribution of drug results by region.





Section 2

DRUG GROUPS

LSD Blotter Collage, Image by Erowid, © 2000 Erowid.org

NFLIS captures the results of drugs identified and reported by the participating labs. The database, therefore, provides a window into the prevalence of emerging and other drugs of interest to the drug control community and of drugs that are rarely encountered. In this section, results for several categories of drugs that are infrequently found but potentially important are presented and discussed.

Section 2.1 provides information on narcotic analgesics—an emerging concern among the drug control community that is focused on diverted pharmaceuticals. Section 2.2 presents the results for benzodiazepines, which are among the most commonly diverted pharmaceuticals. Sections 2.3 and 2.4 provide results for "club drugs" and hallucinogens, respectively. In Section 2.5, results for anabolic steroids are reported. Section 2.6 presents results for stimulants.

2.1 Narcotic Analgesics

The number of new, non-medical users of prescription painkillers has increased 300% since the 1980s (NIDA Research Report Series, 2001). An estimated 4 million people aged 12 years or older used controlled sedatives, stimulants, or opiates for non-medical reasons in 1999, with almost half of them reporting that they used prescription drugs non-medically for the first time in the previous year (NIDA News Advisory, 2001).

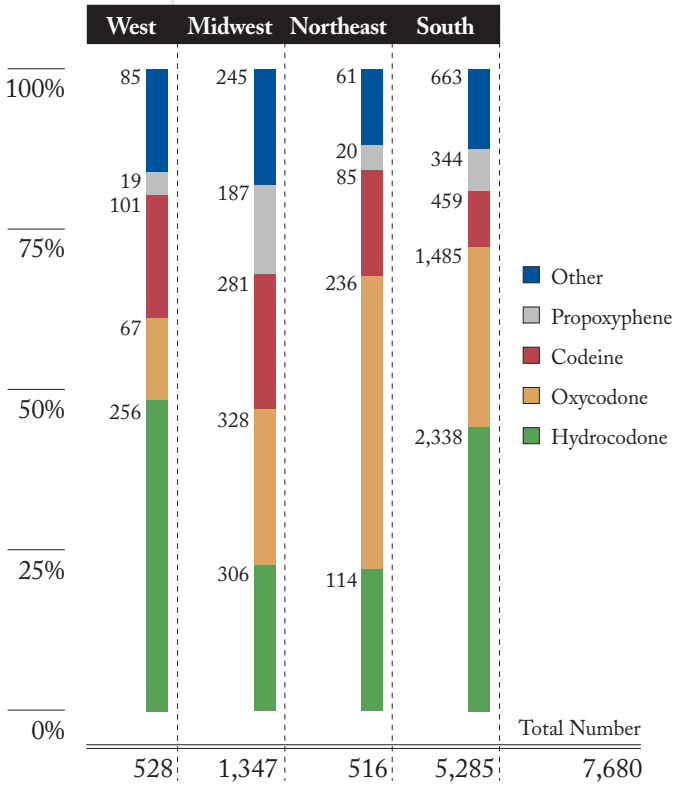
Table 2.1 presents the number and percentage of total identified narcotic analgesics appearing in the NFLIS database in the year 2000. The reporting labs identified 14 different narcotic analgesics in 7,680 items. Hydrocodone and oxycodone made up approximately 39% and 28%, respectively, of the total analyzed analgesics. Figure 2.1 presents the distribution of

Table 2.1 **Narcotic Analgesics**
Number and percentages of total identified narcotic analgesics

Analgesic	Total	Percentage
Hydrocodone	3,014	39.24%
Oxycodone	2,116	27.55%
Codeine	926	12.06%
Propoxyphene	570	7.42%
Morphine	459	5.98%
Hydromorphone	204	2.66%
Meperidine (Pethidine)	160	2.08%
Nalbuphine	91	1.18%
Tramadol	73	0.95%
Pentazocine	25	0.33%
Fentanyl	23	0.30%
Buprenorphine	8	0.10%
Oxymorphone	6	0.08%
Butorphanol tartrate	5	0.07%
Total Analgesics	7,680	

analgesics by region. The South and West had the highest relative frequency of hydrocodone (44% and 48%, respectively), while the Northeast had the highest relative frequency of oxycodone (46%). The Midwest had the highest relative frequency of propoxyphene (14%).

Figure 2.1 Distribution of narcotic analgesics by region.



2.2 Benzodiazepines

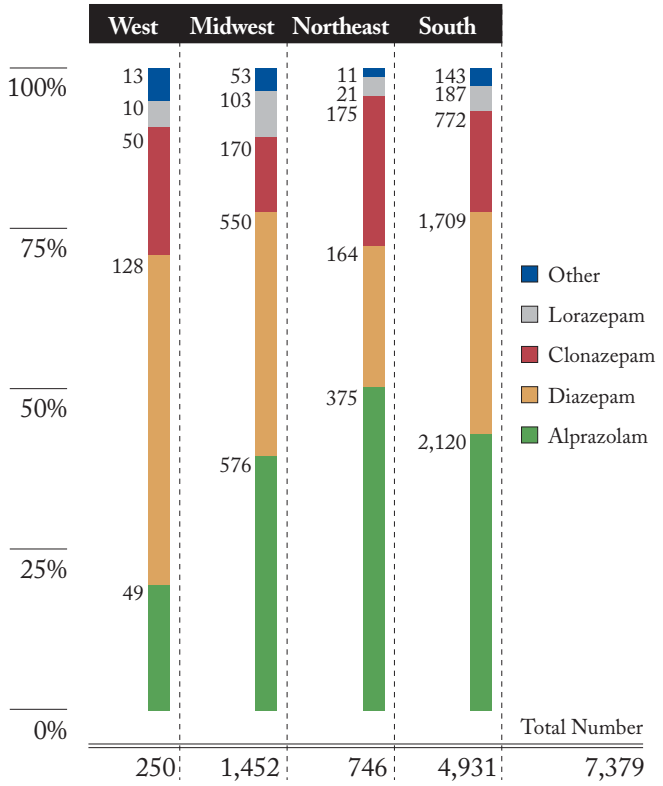
Benzodiazepines are among the most commonly diverted and abused pharmaceutical drug categories (NIDA, NIH Advance Report: Epidemiologic Trends in Drug Abuse, December 2000). According to the Drug Abuse Warning Network [DAWN] report (1999), there were more emergency department visits involving benzodiazepines (including alprazolam, clonazepam, and diazepam) than for marijuana, heroin, or cocaine.

A total of 7,379 benzodiazepines were identified in the NFLIS database in 2000. Table 2.2 presents the number and percentage of the total identified benzodiazepines for the year 2000. Alprazolam and diazepam made up approximately 42% and 35%, respectively, of the total analyzed benzodiazepines. Clonazepam constituted almost 16% of the items identified as benzodiazepines. In Figure 2.2, the distribution of benzodiazepines is presented. The Northeast region had the greatest relative frequency of alprazolam (50%) and the West had the least relative frequency (20%). Conversely, the West had the greatest relative frequency of diazepam (51%) while the Northeast had the least relative frequency (22%).

Table 2.2 **Benzodiazepines**
Number and percentages of total identified benzodiazepine drugs

Benzodiazepines	Total	Percentage
Alprazolam	3,120	42.28%
Diazepam	2,551	34.57%
Clonazepam	1,167	15.82%
Lorazepam	321	4.35%
Temazepam	88	1.19%
Chlordiazepoxide	50	0.68%
Flunitrazepam	47	0.64%
Triazolam	30	0.41%
Midazolam	5	0.07%
Total Benzodiazepines	7,379	

Figure 2.2 Distribution of benzodiazepines by region.



2.3 Club Drugs

In its Community Drug Alert Bulletin (December 1999), the National Institute on Drug Abuse (NIDA) reports alarming increases in the popularity of "club drugs." The term "club drugs" refers to drugs being used by young adults at dance clubs, bars, and all-night dance parties such as "raves" or "trances." MDMA, GHB, flunitrazepam, and ketamine are some of the club or party drugs that are gaining popularity.

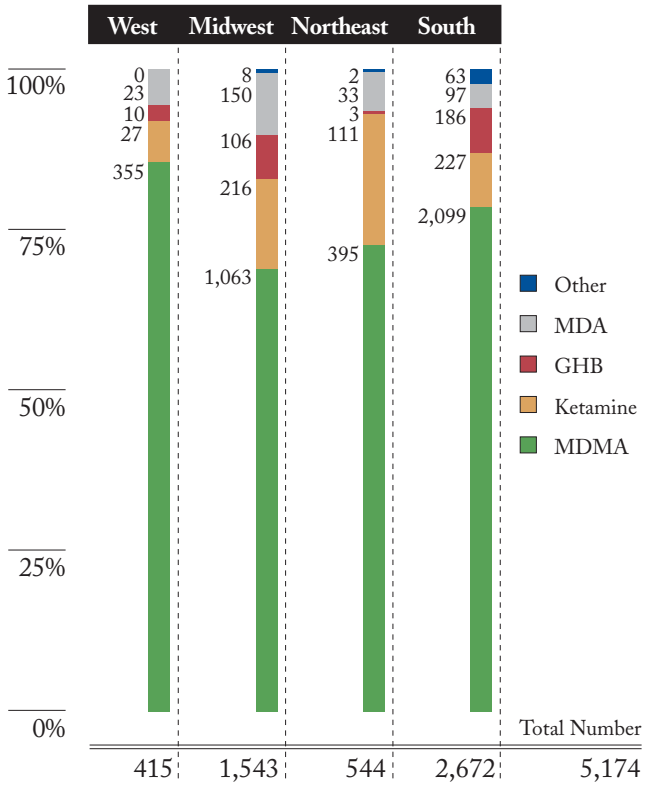
Table 2.3 presents findings from club drug items analyzed for year 2000. Approximately 76% of the club drugs analyzed were MDMA. The use of MDMA is on the rise; a recent study found that one out of 12 high school seniors has tried MDMA (Partnership Attitude Tracking Study [PATS], 2000). Prevalence of its use by 10th and 12th graders was approximately 4.6% in 1995, and in 2000 the prevalence was up to 5.4% among 10th graders and 8.2% among 12th graders (Johnston, O'Malley, and Bachman, 2000. *Monitoring the Future, National Results of Adolescent Drug Use*). Ketamine and GHB accounted for 11% and 6%, respectively, of the analyzed club drugs. The use of illicit ketamine has also risen dramatically over the past few years.

Table 2.3 **Club Drugs**
Number and percentages of total identified club drugs

Club Drug	Total	Percentage
MDMA	3,912	75.61%
Ketamine	581	11.23%
GHB	305	5.89%
MDA	303	5.86%
Flunitrazepam	47	0.91%
MDE	19	0.37%
PMA	7	0.14%
Total Club Drugs	5,174	

While the mix of club drugs varies between regions, "cafeteria use"—the use of a number of hallucinogenic and sedative/hypnotic club drugs—is reported almost everywhere in the United States (Executive Office of the President, Office of National Drug Control Policy, Pulse Check: Trends in Drug Abuse, 1998). Figure 2.3 presents the distribution of club drugs reported in each region. The West region had the greatest relative frequency of MDMA, while the Midwest had the least relative frequency. Additionally, the Northeast region reported a greater relative frequency of ketamine than the other regions. Finally, the Midwest and South reported higher frequencies of GHB than the Northeast and West.

Figure 2.3 Distribution of club drugs by region.



Anonymous Photographer, © 1999 Erowid

2.4 Hallucinogens

Recent studies indicate that hallucinogen use has been on the rise since the early 1990s (NIJ. Research In Brief, 1997: Rise of Hallucinogen Use). This research brief also notes that the rise in hallucinogen use coincided with the growth of raves, underground dance parties that cater to those under the age of 21.

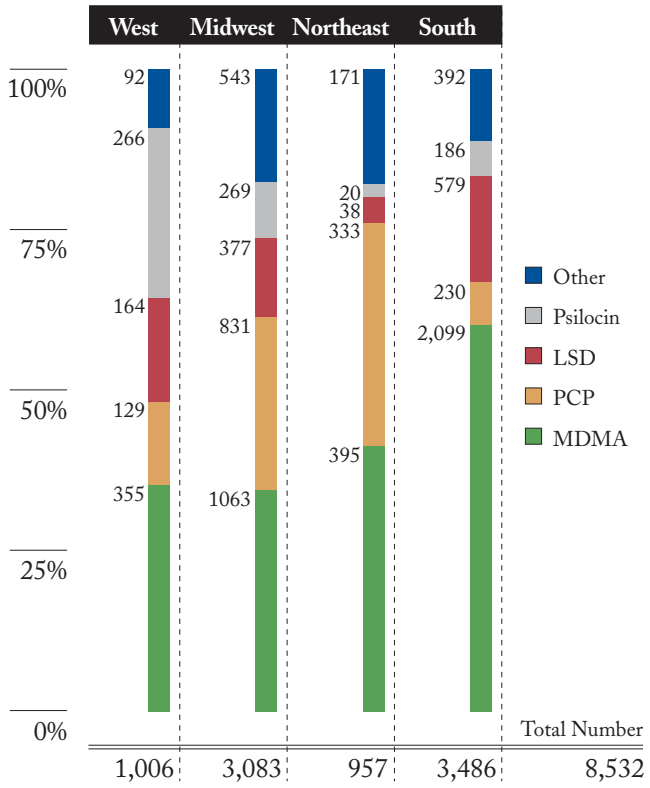
Table 2.4 presents the number and percentage of the total identified hallucinogens for year 2000. MDMA, which is also considered a club drug, is the most frequently identified hallucinogen and comprises almost 46% of the hallucinogen category. PCP and LSD made up approximately 18% and 14%, respectively, of the analyzed items; psilocin and ketamine made up approximately 9% and 7%, respectively.

Figure 2.4 presents the distribution of the hallucinogens by region. MDMA was most frequently reported by labs in the South (64%) compared to labs in the other regions. PCP was most frequently reported by labs in the Northeast (39%) and least reported by those in the South (7%). Conversely, LSD is least reported by the Northeast labs (4%) and most frequently reported by the labs in the South (18%) and West. Psilocin was more predominate in the West and least reported in the Northeast.

Table 2.4 **Hallucinogens**
Number and percentages of total identified hallucinogens

Hallucinogen	Total	Percentage
MDMA	3,912	45.85%
PCP	1,523	17.85%
LSD	1,158	13.57%
Psilocin	741	8.68%
Ketamine	581	6.81%
MDA	303	3.55%
Psilocybine	133	1.56%
Lysergic Acid Amide	60	0.70%
MDE	19	0.22%
Mescaline	16	0.19%
4-Bromo-2,5-Dimethoxyphenethylamine	14	0.16%
Bufotenine	11	0.13%
3,4,5-Trimethoxyamphetamine	10	0.12%
Lysergic Acid	9	0.11%
PMA	7	0.08%
N,N-Dimethyl-3,4-Methylenedioxyamphetamine	6	0.07%
Peyote	6	0.07%
Synthetic Anticholinergics	6	0.07%
Dimethyltryptamine	4	0.05%
Lophophorine	4	0.05%
Hallucinogen	2	0.02%
3,4-Dimethoxyamphetamine	1	0.01%
4-Bromo-2,5-Dimethoxyamphetamine	1	0.01%
5-Methoxy-3,4-Methylenedioxyamphetamine	1	0.01%
Atropine	1	0.01%
Ibogaine	1	0.01%
Tenocyclidine	1	0.01%
Tiletamine/Zolazepam Combos	1	0.01%
Total Hallucinogens	8,532	

Figure 2.4 Distribution of hallucinogens by region.



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2.5 Steroids

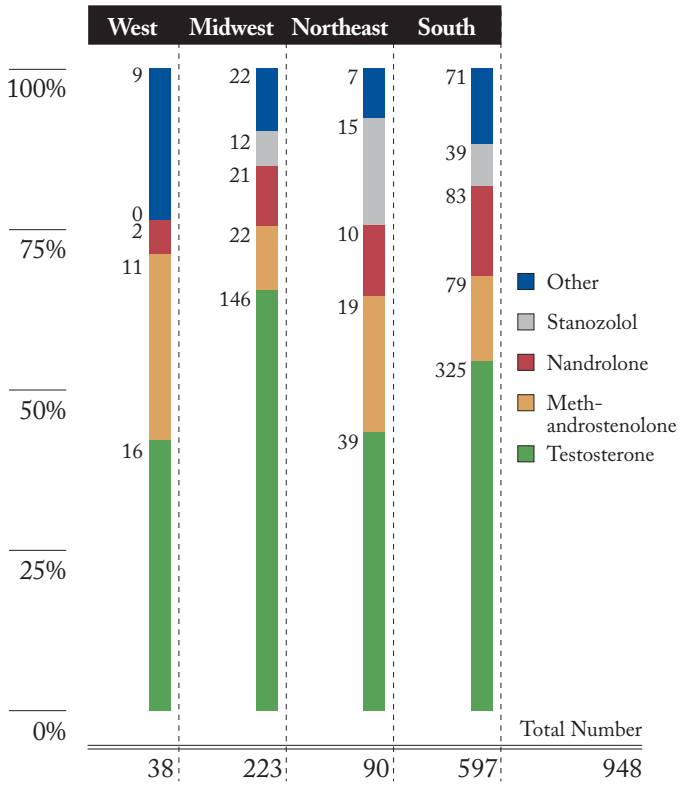
According to NIDA, anabolic steroid abuse is increasing among adolescents, most rapidly among females (NIDA Community Drug Alert Bulletin, 2000). Estimates of its prevalence and abuse among athletes and sports competitors are scant since many anabolic steroid users are unwilling to report the practice for fear of being disqualified.

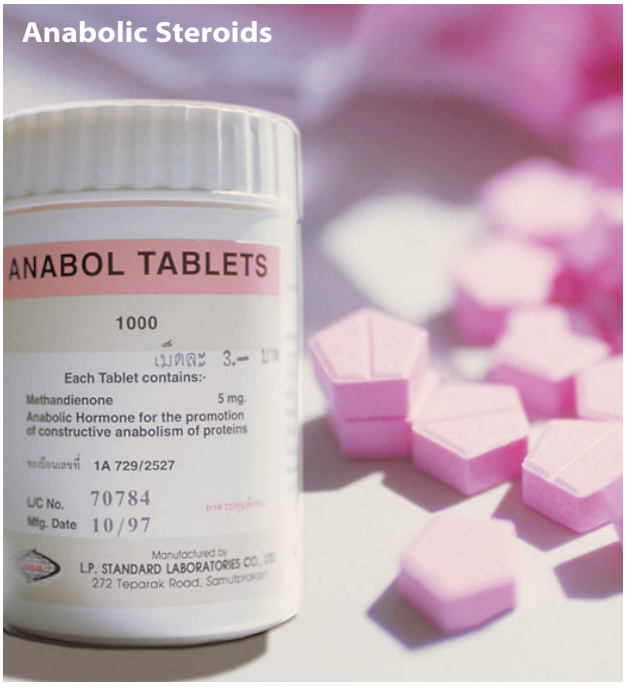
As shown in Table 2.5, a total of 948 of the analyzed items for the year 2000 were a type of anabolic steroid. About 55% of these results were testosterone. Methandrostenolone and nandrolone made up 14% and 12%, respectively. Figure 2.5 provides the distribution of the steroids reported in each region. The Midwest had the greatest relative frequency of testosterone compared to the other regions. In addition, the West and Northeast regions had a higher relative frequency of methandrostenolone than the South and Midwest regions.

Table 2.5 STEROIDS
Number and percentages of total identified steroids

Steroids	Total	Percentage
Testosterone	526	55.49%
Methandrostenolone	131	13.82%
Nandrolone	116	12.24%
Stanozolol	66	6.96%
Boldenone	39	4.11%
Fluoxymesterone	15	1.58%
Anabolic Steroids	11	1.16%
Oxymetholone	11	1.16%
Methyltestosterone	9	0.95%
Methenolone	7	0.74%
Oxandrolone	6	0.63%
Mesterolone	5	0.53%
Methandriol	3	0.32%
4-Androstene-3,17-dione	2	0.21%
Drostanolone	1	0.11%
Total Steroids	948	100.00%

Figure 2.5 Distribution of steroids by region.





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2.6 Stimulants

In Table 2.6, the total number and percentages of stimulants reported in the year 2000 is shown. A total of 55,158 stimulants were reported, and approximately 95% of them were methamphetamine. During 1999, 4.3% of the U.S. population (9.4 million people) reported trying methamphetamine at least once in their lifetime. Amphetamine and methylphenidate made up 3% and 1%, respectively. Figure 2.6 provides the distribution of the stimulants reported in each region. As shown, the West and Midwest had the highest relative frequency of methamphetamine, while the Northeast reported the highest relative frequency of amphetamine, methylphenidate, caffeine, and phentermine.

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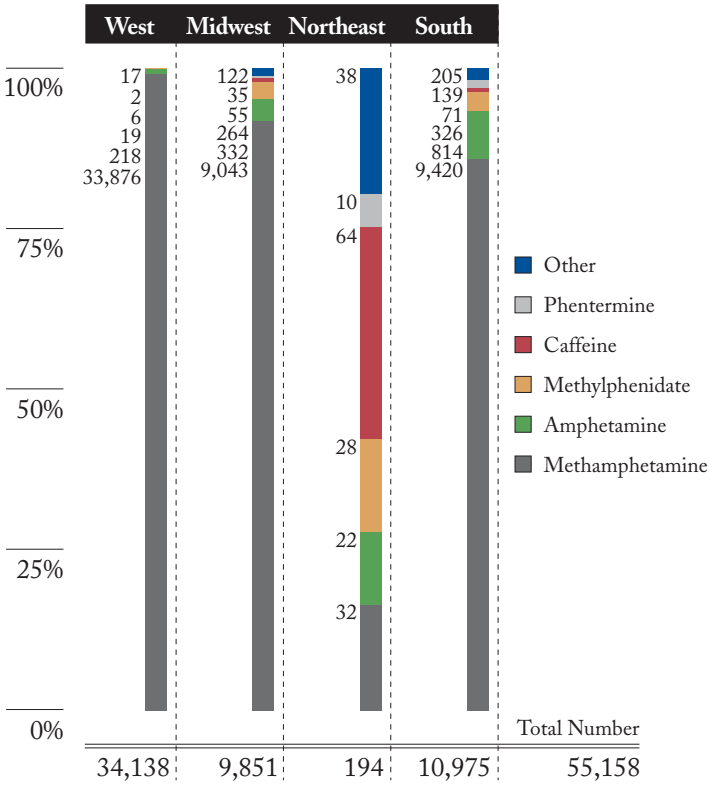
Table 2.6 **Stimulants**
Number and percentages of total identified stimulants

Stimulants	Total	Percentage
Methamphetamine	52,371	94.947%
Amphetamine	1,386	2.512%
Methylphenidate	637	1.154%
Caffeine	196	0.355%
Phentermine	186	0.337%
Amitriptyline	107	0.193%
Fluoxetine	78	0.141%
Benzphetamine	54	0.097%
Phenylpropanolamine	29	0.052%
Phendimetrazine	22	0.039%
Diethylpropion	16	0.029%
Imipramine	15	0.027%
Nortriptyline	14	0.025%
Cathinone	11	0.019%
Fenfluramine	10	0.018%
Pemoline	10	0.018%
Clobenzorex	5	0.009%
Cathine	4	0.007%
Propylhexedrine	2	0.003%
Clortermine	1	0.001%
Desipramine	1	0.001%
Modafinil	1	0.001%
Phenmetrazine	1	0.001%
Strychnine	1	0.001%
Total Stimulants	55,158	

Figure 2.6 Distribution of stimulants by region.

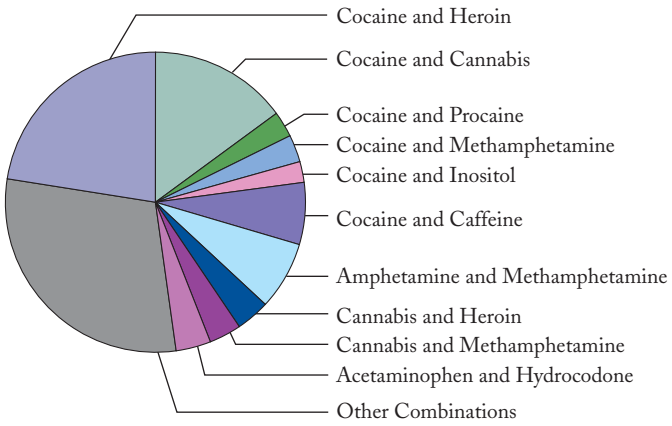


Section 3

MOST FREQUENTLY IDENTIFIED DRUG COMBINATIONS

In 2000, the NFLIS reports contained 5,820 analyzed items that contain two distinct substances. Cocaine, cannabis, heroin, and methamphetamine were identified in the majority of the combinations and were often combined with pharmaceutical drugs.

Figure 3.1 Distribution of drug combinations.



3.1 Top 10 Drug Combinations

For the majority of analyzed items, only one drug or substance was identified in the NFLIS data. Of the 532,412 items analyzed in 2000, two distinct substances were identified in 5,820 items. The most prevalent 10 combinations are presented in Figure 3.1. These combinations make up approximately 70% (4,091) of the total combinations identified in the NFLIS 2000 database.

Cocaine, including both powder and "crack," was present in over 52% of the drug combinations (see Figure 3.1). Nearly 23% of the top 10 drug combinations contained cocaine and heroin. Approximately 75% of the drug abuse deaths reported to the Drug Abuse Warning Network (DAWN) Medical Examiner involved more than one drug in 1999; the most common combination included cocaine and heroin/morphine (Substance Abuse and Mental Health Services Administration [SAMHSA], Annual Medical Examiner Data, 1999). DAWN Emergency Department data show that this combination was in the top frequency tier for 1999 (SAMHSA, Annual Emergency Department Data, 1999). Cocaine was also identified in combination with cannabis (15%), procaine (3%), methamphetamine (3%), and inositol (2%) in the 2000 NFLIS data.

As shown in Figure 3.1, heroin was identified in combination with cocaine (23%) and with cannabis/THC (4%). Cannabis was identified in approximately 22% of the drug combinations. Fifteen percent of the items analyzed included cocaine and cannabis and about 4% of the combinations involved cannabis and heroin. The Community Epidemiology Work Group (CEWG) reported that cannabis/hashish is more likely than other drugs to be used sequentially or concurrently with other drugs (CEWG, Epidemiologic Trends in Drug Abuse Advance Report, December 2000). The DAWN Emergency Department 1999 data identified alcohol,

Table 3.2 **10 Most Frequently Identified Drug Combinations**
Number and percentages of total identified drug combinations

		West		Midwest		Northeast		South		Total	
Substance One	Substance Two	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage
Cocaine	Heroin	101	14.57%	289	14.79%	18	2.24%	902	38.04%	1,310	22.51%
Cannabis	Cocaine	88	12.70%	228	11.67%	12	1.50%	540	22.78%	868	14.91%
Amphetamine	Methamphetamine	63	9.09%	109	5.58%	–	0.00%	256	10.80%	428	7.35%
Caffeine	Cocaine	–	0.00%	337	17.25%	52	6.48%	–	0.00%	389	6.68%
Acetaminophen	Hydrocodone	11	1.59%	126	6.45%	5	0.62%	77	3.25%	219	3.76%
Cannabis	Heroin	9	1.30%	2	0.10%	–	0.00%	201	8.48%	212	3.64%
Methamphetamine	Cannabis	195	28.14%	4	0.21%	–	0.00%	3	0.13%	202	3.47%
Methamphetamine	Cocaine	83	11.98%	25	1.28%	–	0.00%	63	2.66%	171	2.94%
Procaine	Cocaine	–	0.00%	134	6.86%	28	3.49%	–	0.00%	62	2.78%
Inositol	Cocaine	–	0.00%	–	0.00%	130	16.21%	–	0.00%	130	2.23%
Other combinations		143	20.63%	700	35.82%	557	69.45%	329	13.88%	1,729	29.71%
Total analyzed items		693		1,954		802		2,371		5,820	

cocaine, benzodiazepines, amphetamines, LSD, methamphetamines, and PCP as substances most frequently combined with cannabis (SAMHSA, DAWN Annual Emergency Department Data, 1999).

Methamphetamine was combined with amphetamine (7%), cocaine (3%), and cannabis (3%) to make up approximately 14% of the drug combinations.

3.2 Regional Variations in Drug Combinations

Table 3.2 presents the distribution of the top 10 drug combinations across the census regions. The combination of cocaine and heroin was most frequently reported in the South (38%) and least reported in the Northeast (2%). The relative frequency of the cannabis/cocaine combination was highest in the Midwest and Southern regions (12% and 23%, respectively). The South and West regions reported the highest relative frequency of the amphetamine/methamphetamine combination, while the Northeast and Midwest reported the greatest relative frequency of the cocaine/caffeine combination and the combination of hydrocodone and acetaminophen. While the combination of methamphetamine and cannabis was less than 1% in the Northeast, Midwest, and South, it constituted approximately 28% of the combinations in the West. Procaine/cocaine combinations were only reported by the Northeast and Midwest regions (approximately 3% and 7%, respectively.). Sixteen percent of the drug combinations in the Northeast region were of inositol and cocaine; a combination that did not occur in the other regions.

3.3 Combinations of Selected Pharmaceuticals

Table 3.3 presents the top 10 drug combinations for which at least one of the substances identified is a pharmaceutical drug. The top 10 pharmaceutical combinations make up approximately 14% of all of the combinations found in the NFLIS 2000 data. Approximately 58% of the top 10 pharmaceuticals contained acetaminophen. The most common combination was hydrocodone and acetaminophen (219 items, 27% of the top 10 pharmaceuticals). There were 162 (approximately 20% of the top 10 pharmaceuticals) submitted items that consisted of cocaine and procaine. In addition, approximately 10% of the top pharmaceuticals consisted of the combination of propoxyphene and acetaminophen and 9% of the acetaminophen/codeine combination.

Table 3.3 **Combinations of Selected Pharmaceuticals**
Number and percentages of total identified selected pharmaceuticals

Substance One	Substance Two	Total	Percentage
Acetaminophen	Hydrocodone	219	3.76%
Procaine	Cocaine	162	2.78%
Acetaminophen	Propoxyphene	80	1.37%
Acetaminophen	Codeine	71	1.22%
Ephedrine	Guaifenesin	71	1.22%
Acetaminophen	Oxycodone	63	1.08%
Codeine	Promethazine	42	0.72%
Acetaminophen	Benzocaine	40	0.69%
Lidocaine	Cocaine	34	0.58%
Benzocaine	Cocaine	32	0.55%
Total		814	13.99%

Section 4

DRUG DISTRIBUTIONS BY REGION

In this section, the quarterly distributions of selected pharmaceuticals and the top 4 illicit drugs are presented for each region. The top 4 illicit drugs include methamphetamine, cocaine, heroin, and MDMA and exclude the most frequently identified drug, cannabis.

4.1 Selected Pharmaceuticals

The selected pharmaceuticals are hydrocodone, oxycodone, alprazolam, and diazepam. They were chosen because they were reported most frequently compared to others and, therefore, regional distributions are more easily shown. In this section, when percentages are reported, please note that they refer to the percentage of the total amount of the drug submitted over the four quarters in the year 2000.

Figure 4.1.1 presents the quarterly distribution for selected pharmaceuticals in the West region. The frequency of reported hydrocodone increased from quarter 1 to quarter 3 and then slightly decreased in the fourth quarter. Diazepam reports generally increased over the quarters, while alprazolam decreased from 18% in quarter 1 to 6% in quarter 4. Reported oxycodone decreased in quarters 2 and 3 but then increased in quarter 4.

Figure 4.1.2 presents the quarterly distributions for the Midwest. The relative frequency of Oxycodone increased over the quarters from 16% in quarter 1 to 22% in quarter 4. On the contrary, the frequency of reported items of alprazolam and diazepam decreased overall from quarter 1 to quarter 4.

Figure 4.1.3 presents the quarterly distributions for the Northeast region. Although diazepam fluctuated in quarters 2 and 3, there was an overall decrease in the fourth quarter. Oxycodone and hydrocodone steadily increased over the quarters.

Figure 4.1.4 shows the quarterly distributions for the South. The frequency of hydrocodone and diazepam decreased over the quarters while oxycodone's frequency increased through quarter 3 and then slightly decreased in quarter 4. Alprazolam slightly increased across the quarters.

Figure 4.1.1 Quarterly distribution for selected pharmaceuticals in the West region.

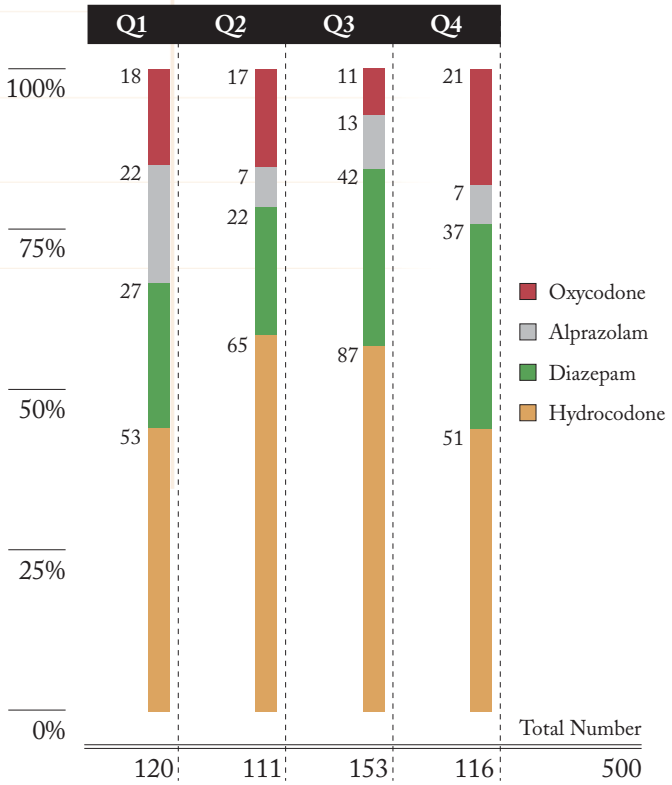


Figure 4.1.2 Quarterly distribution for selected pharmaceuticals in the Midwest region.

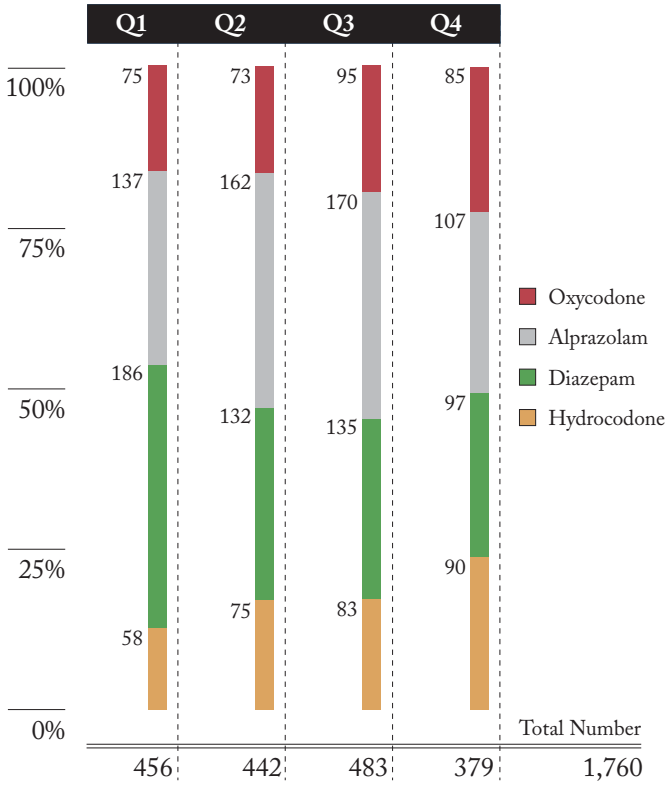


Figure 4.1.3 Quarterly distribution for selected pharmaceuticals in the Northeast region.

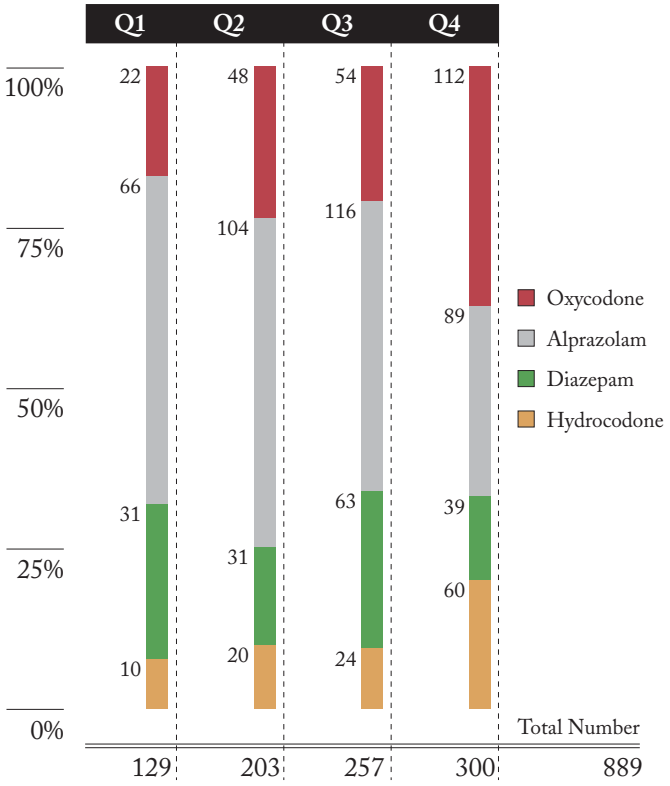
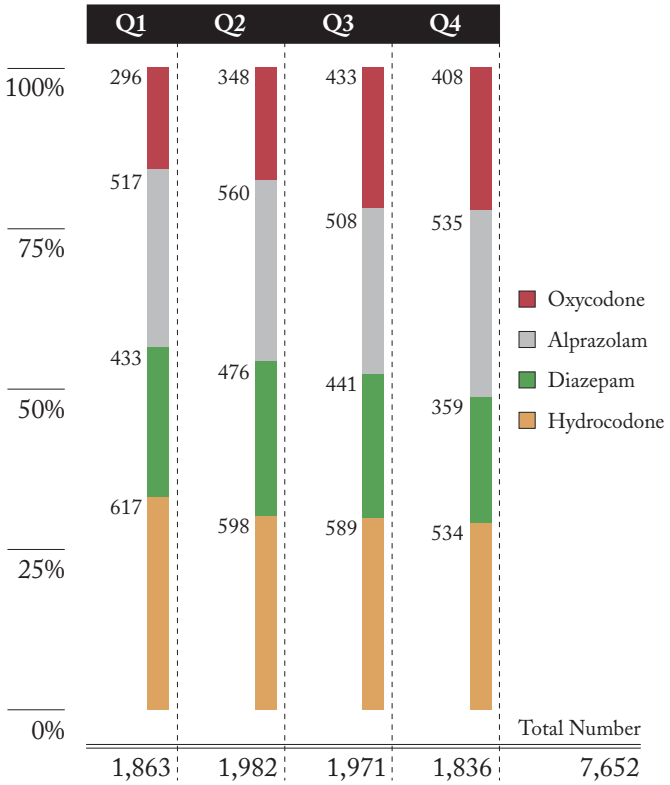


Figure 4.1.4 Quarterly distribution for selected pharmaceuticals in the South region.



4.2 Top 4 Illicit Drugs (Excluding Cannabis)

In Figure 4.2.1, the top 4 drugs (excluding cannabis) and their distribution over the quarters are presented for the West. Reported items of methamphetamine increased during the first three quarters, but slightly decreased in the fourth quarter. The number of cocaine reports slightly decreased in quarter 2 and 3, and increased in the fourth quarter. Heroin increased from quarter 1 to 3, and decreased in the fourth quarter. MDMA remained fairly constant, only decreasing slightly in the third quarter.

Figure 4.2.2 presents the quarterly distributions for the Midwest. The amount of heroin reported in 2000 decreased over the quarters. Reports of methamphetamine increased from quarter 1 to quarter 3 and then decreased in the fourth quarter. Finally, reports of MDMA increased from quarter 1 to quarter 2 but then decreased across the third and fourth quarters.

Figure 4.2.3 shows the quarterly distributions for the Northeast region. The number of cocaine and heroin reports remained fairly stable over the quarters with only a slight decrease in cocaine and slight increase in heroin. However, the frequency of MDMA items reported in the year 2000 jumped from 2% to 11% from quarter 1 to quarter 4.

In Figure 4.2.4, the quarterly distributions for the top 4 drugs in the South are presented. The percentage for each drug reported in this chart remained moderately consistent across all of the quarters in the year 2000.

Figure 4.2.1 Top drugs quarterly distribution in the West region.

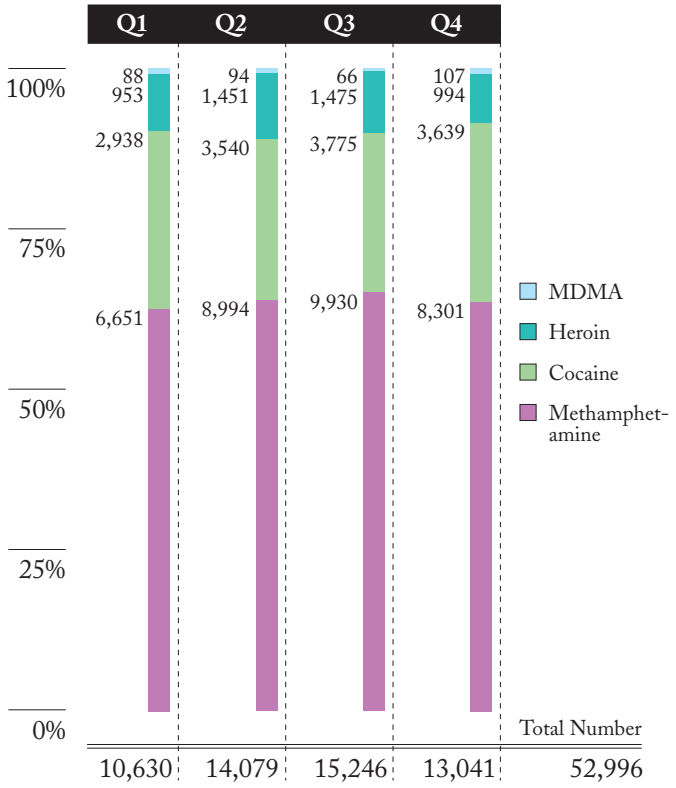
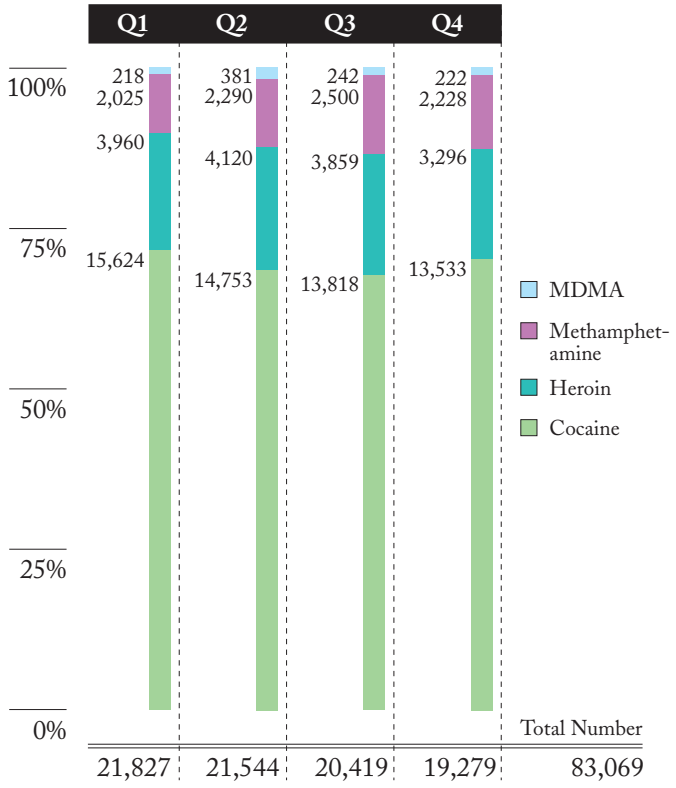


Figure 4.2.2 Top drugs quarterly distribution in the Midwest region.



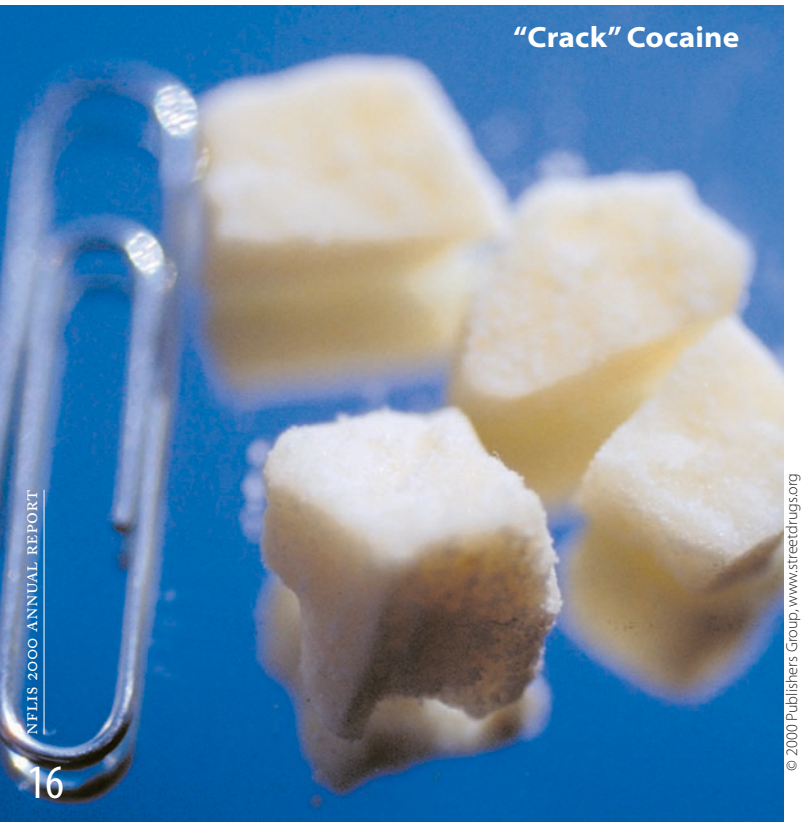


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Figure 4.2.3 Top drugs quarterly distribution in the Northeast region.

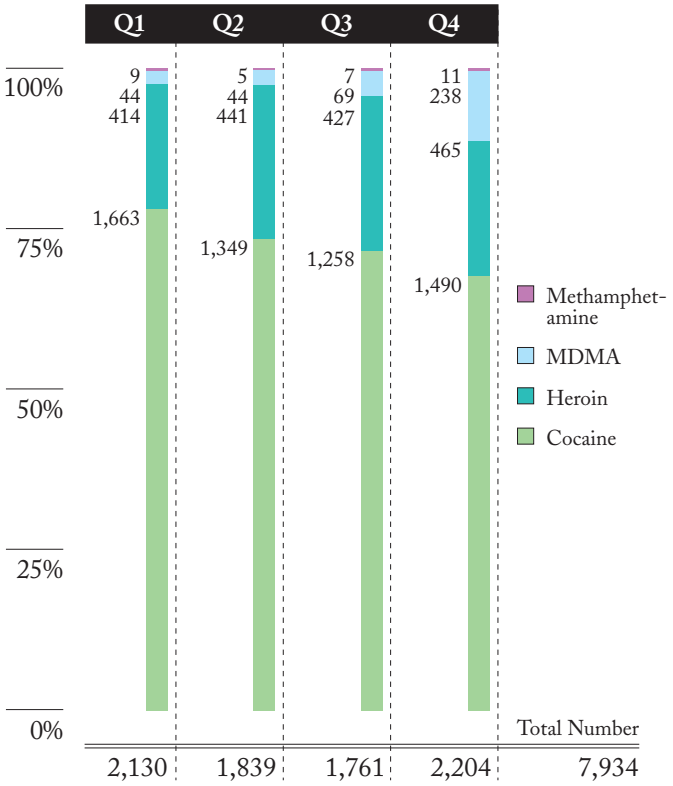
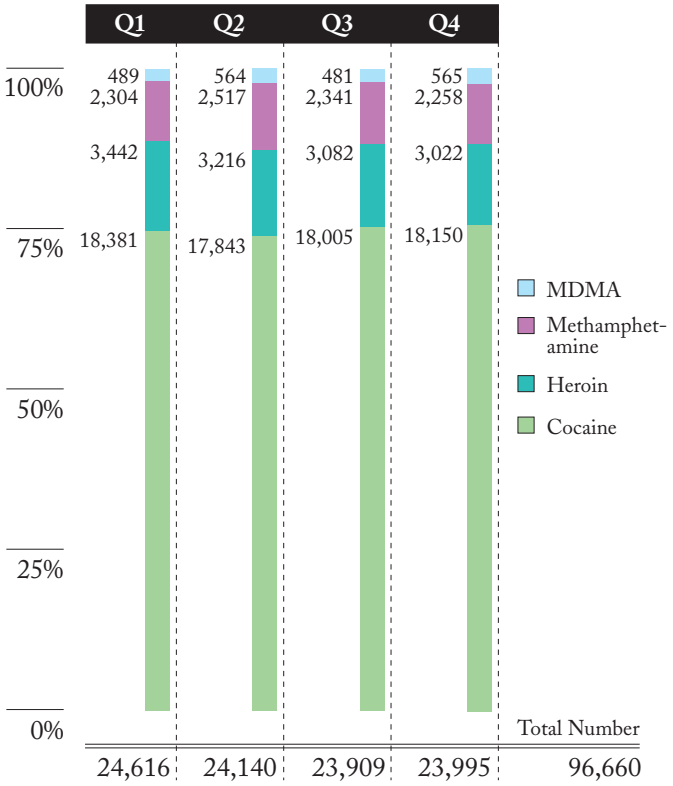


Figure 4.2.4 Top drugs quarterly distribution in the South region.



CONCLUSIONS

This first annual report on NFLIS data displays the potential of this system to inform national, State, and local drug policy. Results from NFLIS are potentially useful to a number of constituencies including federal and State policymakers, forensic lab personnel, law enforcement and treatment providers, and researchers. Findings from NFLIS will complement other sources of drug use information, such as surveys and drug testing programs. Unlike the latter two data sources, which provide drug use or demand-side indicators of the Nation's drug problem, NFLIS provides a supply-side indicator—capturing information on the characteristics of drugs seized from sellers (as well as from users). Further, by providing analytical results, NFLIS potentially provides information on all drugs in the drug market without the use of costly and time-consuming surveys and drug tests.

NFLIS data represent the results of items seized by law enforcement, submitted to a laboratory for analysis, and subsequently analyzed by the laboratory. As previously noted, we are aware from anecdotal evidence that there is variation across law enforcement agencies and laboratories with respect to their policies and procedures on submitting and analyzing solid-dosage drug evidence. In some jurisdictions, evidence is analyzed only if a case is proceeding to trial; thus, all or much evidence related to cases concluded as a result of a plea bargain will not be included in the data.

Although this report includes more than half a million analytical results, reporting from State and local laboratories during the year 2000 was insufficient to allow generation of national or regional estimates. During 2001, other labs have begun to report and we are continuing to enlist new State and local labs in order to improve the ability of NFLIS to describe the Nation's drug problem. We anticipate generating national and regional estimates for 2001.

As our sample increases and becomes more representative of our Nation's State and local forensic labs, future reports will provide a more detailed and comprehensive picture of drug use and trafficking patterns in the U.S. For example, some laboratories are reporting not only the identity of the analyzed substances but also the weight, form of material, and purity of the substance. These data will be analyzed for future reports.

Appendix A

BENEFITS & LIMITATIONS OF NFLIS DATA

Benefits

NFLIS will provide a key national-level source of "supply side" drug data. As such, it will provide information on the frequency with which illegal and controlled drugs and other substances are encountered by State and local law enforcement and analyzed by the Nation's forensic labs.

The systematic collection and analysis of solid dosage drug analysis data from State and local labs will improve our knowledge and understanding of the changes and trends in the Nation's drug problem. Additionally, it will be a major resource for supporting drug enforcement and drug policy initiatives at the national level and in communities throughout the country. NFLIS will assist the drug control community in achieving its mission by:

- highlighting the extent and variety of controlled substances across geographic areas and over time,
- improving access to recent estimates of drug availability by local, State, and national agencies,
- bringing attention to emerging drug problems, and
- providing current information about the diversion of licit drugs into illicit channels.

The DEA, the Office of National Drug Control Policy (ONDCP), and other Federal agencies will be served by the NFLIS database. The data will benefit local, regional, and State task forces and single-agency operations as well.

NFLIS is an opportunity for State and local labs and their staff to participate in an important effort that will have high national visibility. Participating labs will receive regular reports summarizing data from their specific lab, as well as regional and national data. Additionally, participating labs have access to the NFLIS database that provides important information about local, regional, and national trends in drug seizures, purchases, and recoveries by law enforcement agencies and in drug analysis results. Participating labs will be able to run specific and customized queries on their own data as well as on aggregated data from other reporting labs. Labs may find NFLIS data useful in planning and managing future workloads and needs.

Limitations

As with all database systems, NFLIS has limitations that should be kept in mind when interpreting the findings presented in this report:

- NFLIS includes results from completed lab analyses only. Evidence secured by law enforcement but not analyzed is not included.
- The absolute and relative frequency of analyzed results for individual drugs may in part be a function of the current pattern of lab participation in NFLIS and state or local policies regarding enforcement and prosecution efforts for specific drugs. For example, CA labs dominate the current data in the West, and most or all CA law enforcement agencies do not actively prosecute misdemeanor cannabis charges. As a result, the frequency of analytical results for CA showing cannabis are almost certainly lower than if policies were similar to most States in other regions.
- Lab policies and procedures with respect to the handling of drug evidence vary. Some labs analyze all evidence, while others analyze selected items. For example, a lab may analyze only the items that are likely to contain substances associated with higher legal penalties (e.g., cocaine versus marijuana).
- Lab policies and procedures vary with respect to record keeping. Therefore, what is reported to NFLIS also varies. For example, some labs' records include the weight of the sample selected for analysis (e.g., one of five bags of powder), while others record total weight.
- Chemical analysis practices differ among labs. For example, an unusual substance may be explicitly identified by one lab, while another lab may indicate "no controlled drug found." Although these differences in practice are unlikely to affect findings for common drugs such as cocaine or methamphetamine, they may affect the reported prevalence of unusual or emerging substances such as GHB, ketamine, or other drugs of interest.
- Currently, NFLIS includes only State and local labs. Drug analyses conducted by Federal forensic labs are not included.
- Evidence submitted for analysis reflects not only the "drugs on the street" but also local law enforcement practices that target specific types of drug trafficking.

Other future plans for the NFLIS project include special projects that will allow us to better characterize our findings. Information from these studies will enhance our ability to link the reported analytical results with the true scope of the Nation's illegal and illicit drug markets.

Appendix B

SUMMARY TABLES OF REPORTING LABS

Enlisted NFLIS State lab systems as of December 31, 2000

State	State System Name
AL	Alabama Department of Forensic Sciences (9 sites)
AR	Arkansas State Crime Laboratory (Little Rock)
CA	California Department of Justice Bureau of Forensic Services (10 sites)
CT	Connecticut Department of Public Safety Controlled Substances/Toxicology Laboratory (Hartford)
FL	Florida Department of Law Enforcement (7 sites)
GA	Georgia State Bureau of Investigation Forensic Sciences Division (7 sites)
IA	Iowa Division of Criminal Investigation Laboratory (Des Moines)
IL	Illinois State Police Division of Forensic Services (8 sites)
LA	Louisiana State Police Crime Laboratory (Baton Rouge)
MA	Massachusetts Department of Public Health Drug Analysis Laboratory (2 sites)
MA	Massachusetts Department of State Police Crime Laboratory (Sudbury)
MI	Michigan Department of State Police Forensic Science Division (7 sites)
MO	Missouri State Highway Patrol Crime Laboratory Division (6 sites)
MS	Mississippi Department of Public Safety Crime Laboratory (4 sites)
MT	Montana State Forensic Science Division Laboratory (1 site)
NM	New Mexico Department of Public Safety Crime Laboratory (2 sites)
OR	Oregon State Police Forensic Services Division (8 sites)
SC	South Carolina Law Enforcement Division Crime Laboratory (Columbia)
TX	Texas Department of Public Safety Crime Laboratory Service (13 sites)
VA	Virginia Division of Forensic Sciences (4 sites)
WV	West Virginia State Police Forensic Laboratory (South Charleston)

Enlisted NFLIS local labs as of December 31, 2000

State	Lab Name
CA	Sacramento County Laboratory of Forensic Services (Sacramento)
CA	San Bernardino Sheriff's Office (San Bernardino)
CA	San Diego Police Department Crime Laboratory (San Diego)
CA	San Francisco Police Department Crime Laboratory (San Francisco)
CO	Denver Police Department Crime Laboratory Bureau (Denver)
FL	Broward County Sheriff's Crime Laboratory (Ft. Lauderdale)
FL	Regional Crime Laboratory at Indian River Community College (Ft. Pierce)
FL	Miami-Dade Police Department Crime Laboratory Bureau (Miami)
FL	Pinellas County Forensic Laboratory (Largo)
IL	Northern Illinois Police Crime Lab (Chicago)
LA	Acadiana Criminalistics Laboratory (New Iberia)
LA	New Orleans Department of Police Scientific Criminal Investigations Division (New Orleans)
MA	University of Massachusetts Medical Center Drugs of Abuse Laboratory (Worcester)
MD	Baltimore City Police Crime Laboratory (Baltimore)
MI	Detroit Police Department Crime Laboratory (Detroit)
NJ	Newark Department of Police Forensic Laboratory (Newark)
NJ	Union County Prosecutor's Office Laboratory (Westfield)
NY	Nassau County Police Department Scientific Investigation Bureau (Mineola)
NY	Onondaga County Center for Forensic Sciences (Syracuse)
OH	Hamilton County Coroner's Laboratory (Cincinnati)
OH	Lake County Regional Forensic Laboratory (Painesville)
PA	Allegheny County Division of Laboratories (Pittsburgh)
PA	Philadelphia Police Department Crime Laboratory (Philadelphia)
TX	Austin Police Department Crime Laboratory (Austin)
TX	Bexar County Forensic Science Center Criminal Investigation Laboratory (San Antonio)
TX	Harris County Crime Laboratory (Houston)

For more information on NFLIS or to become a participating lab, please use the following contact information.

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

Attention: Valley Rachal, Project Director
Phone: 919-485-7712
Fax: 919-485-7700
E-mail: jvr@rti.org

Drug Enforcement Administration
Office of Diversion Control
600 Army Navy Drive, E-6341
Arlington, VA 22202

Attention: Clyde Richardson, Project Officer
Phone: 202-307-7175
Fax: 202-353-1263
E-mail: cfrich@starpower.net