NFLIS

NATIONAL FORENSIC LABORATORY INFORMATION SYSTEM

NFLIS-DRUG **2020** ANNUAL REPORT

DRUG

U.S. DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION
DIVERSION CONTROL DIVISION

Contents

Notice of Decrease in Drug Cases

The total number of cases submitted to and analyzed by NFLIS-Drug reporting laboratories for the 2020 NFLIS-Drug Annual Report is noticeably lower than the number reported in the previous year. The decrease in cases (and subsequent drug reports) is likely due, in part, to the impacts of the coronavirus disease 2019 (COVID-19) pandemic on law enforcement activities and laboratory caseloads, staffing, and operations. Specifically, several laboratories and laboratory systems alerted NFLIS staff that operations were being suspended during March and April 2020 and that reduced numbers of laboratory staff would be working rotating or limited schedules. These impacts continued throughout the year. For example, one State laboratory system noted that it did not have any drug cases to work because it believed that law enforcement had reduced interactions with the public.

Because of the decrease in reporting, readers should use caution when comparing 2020 data with data from previous years. The U.S. Drug Enforcement Administration (DEA) will continue to explore the impacts of the COVID-19 pandemic on reporting and would like to thank the participating and reporting NFLIS-Drug laboratories for their continued support and dedication to NFLIS, especially during the difficult times of the pandemic.

Highlights

- From January 1, 2020, through December 31, 2020, an estimated 723,067 distinct drug cases were submitted to State and local laboratories in the United States and analyzed by March 31, 2021. From these cases, an estimated 1,283,971 drug reports were identified. The total number of cases reported to the National Forensic Laboratory Information System (NFLIS) for the NFLIS-Drug 2020 Annual Report is noticeably lower than the number reported in the previous year. Please see the Notice of Decrease in Drug Cases.
- Methamphetamine was the most frequently identified drug (377,787 reports) in 2020, followed by cannabis/THC (188,735 reports), cocaine (153,372 reports), fentanyl (117,045 reports), and heroin (98,077 reports). These five most frequently identified drugs accounted for 73% of all drug reports.
- Nationally, fentanyl reports dramatically increased from 2014 through 2020. Alprazolam reports greatly increased from 2014 to 2016, then decreased through 2020. Buprenorphine reports increased from 2013 to 2019, then decreased in 2020. Oxycodone reports dramatically increased from 2006 to 2010, then steadily declined through 2020. Tramadol reports began to steadily increase in 2007, with a significant increase in reports from 2019 to 2020. Amphetamine reports increased from 2007 through 2018, followed by decreases through 2020.
- From 2019 to 2020, reports of fentanyl and tramadol increased significantly ($p < .05$), while reports of alprazolam, buprenorphine, oxycodone, and amphetamine decreased significantly.
- Regionally, fentanyl reports in the Northeast increased considerably from 2015 through 2019 but decreased in 2020, while reports increased substantially in the Midwest, West, and South beginning in 2014. For buprenorphine, reports increased through 2010 or 2011 for all regions, slowed through 2013, then increased through 2020 in the West while decreasing from 2019 to 2020 in the Midwest, South, and Northeast. In the Midwest and South, tramadol reports steadily increased from 2011 through 2016, while the Midwest and Northeast exhibited larger increases in reports from 2017 through 2020.
- In 2020, fentanyl accounted for 59% of identified narcotic analgesic reports, while alprazolam accounted for 39% of identified tranquilizer and depressant reports. Among identified synthetic cannabinoids, MDMB-4en-PINACA accounted for 30% of reports.
- Nationwide, methamphetamine reports increased from 2011 through 2019, then decreased in 2020. Cannabis/THC reports decreased from 2009 through 2020. Cocaine reports substantially decreased from 2006 through 2014, slightly increased from 2015 through 2017, then decreased through 2020. Heroin reports increased from 2007 through 2015, then decreased through 2020. Eutylone reports increased from 31 reports in 2017 to almost 13,000 reports in 2020. MDMA reports decreased from 2010 to 2013, gradually increased from 2014 through 2019, then significantly decreased in 2020.

Common Drug Names Used in This Publication

NFLIS Substance Name	Chemical Name
4F-MDMB-BUTICA	methyl 2-(1-(4-fluorobutyl)-1*H*-indole-3-carboxamido)-3,3-dimethylbutanoate
4F-MDMB-BUTINACA	methyl 2-(1-(4-fluorobutyl)-1*H*-indazole-3-carboxamido)-3,3-dimethylbutanoate
5F-ADB	methyl 2-(1-(5-fluoropentyl)-1*H*-indazole-3-carboxamido)-3,3-dimethylbutanoate
5F-CUMYL-PINACA	1-(5-fluoropentyl)-*N*-(2-phenylpropan-2-yl)-1*H*-indazole-3-carboxamide
5F-EDMB-PINACA	ethyl 2-(1-(5-fluoropentyl)-1*H*-indazole-3-carboxamido)-3,3-dimethylbutanoate
5F-EMB-PICA	ethyl 2-(1-(5-fluoropentyl)-1*H*-indole-3-carboxamido)-3-methylbutanoate
5F-MDMB-PICA	methyl 2-(1-(5-fluoropentyl)-1*H*-indole-3-carboxamido)-3,3-dimethylbutanoate
ADB-BUTINACA	*N*-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-butyl-1*H*-indazole-3-carboxamide
alpha-PHP	alpha-pyrrolidinohexanophenone
alpha-PiHP	alpha-pyrrolidinoisohexanophenone
ANPP	4-anilino-*N*-phenethyl-4-piperidine
BMDP	3,4-methylenedioxy-*N*-benzylcathinone
FUB-144	(1-(4-fluorobenzyl)-1*H*-indol-3-yl) (2,2,3,3-tetramethylcyclopropyl)methanone
FUB-AMB	methyl 2-(1-(4-fluorobenzyl)-1*H*-indazole-3-carboxamido)-3-methylbutanoate
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDMB-4en-PINACA	methyl 3,3-dimethyl-2-(1-(pent-4-en-1-yl)-1*H*-indazole-3-carboxamido)butanoate
Phenethyl-4-ANPP	*N*-phenyl-*N*,1-bis(2-phenylethyl)piperidin-4-amine

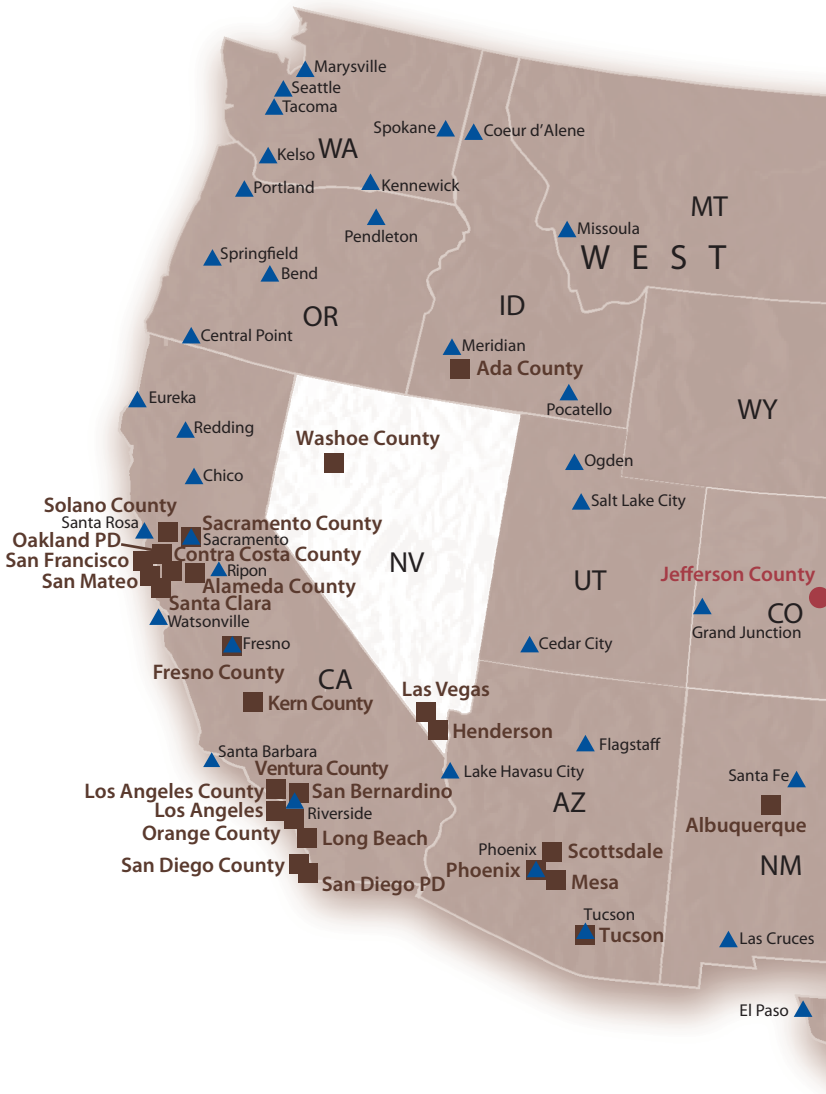
INTRODUCTION

The National Forensic Laboratory Information System (NFLIS) is a program of the Drug Enforcement Administration (DEA), Diversion Control Division. NFLIS-Drug systematically collects drug identification results and associated information from drug cases submitted to and analyzed by Federal, State, and local forensic laboratories. These laboratories analyze controlled and noncontrolled substances secured in law enforcement operations across the country, making NFLIS-Drug an important resource in monitoring illicit drug use and trafficking, including the diversion of legally manufactured pharmaceuticals into illegal markets. NFLIS-Drug includes information on the specific substance and the characteristics of drug evidence, such as purity, quantity, and drug combinations. These data are used to support drug scheduling decisions and to inform drug policy and drug enforcement initiatives nationally and in local communities around the country.

NFLIS-Drug is a comprehensive information system that includes data from forensic laboratories that handle the Nation's drug analysis cases. The NFLIS-Drug participation rate, defined as the percentage of the national drug caseload represented by laboratories that have joined NFLIS-Drug, is currently more than 98%. NFLIS-Drug includes 50 State systems and 108 local or municipal laboratories/laboratory systems, representing a total of 283 individual laboratories. The NFLIS-Drug database also includes Federal data from DEA and U.S. Customs and Border Protection laboratories.

This publication presents the results of drug cases *submitted* to State and local laboratories from January 1, 2020, through December 31, 2020, that were *analyzed* by March 31, 2021. Data from Federal laboratories for the same period are also included in this publication. The data presented in this publication include *all* drugs contained in the laboratories' reported drug items.

Section 1 of this publication presents national and regional estimates for the 25 most frequently identified drugs, as well as national and regional trends from January 2006 through December 2020. Section 2 presents estimates of specific drugs by drug category. All estimates are based on the NEAR approach (National Estimates Based on All Reports). Use caution when interpreting the estimates and trends for 2020 because of the noticeable decrease in reported cases, likely due to the impacts of the COVID-19 pandemic (see the Notice of Decrease in Drug Cases). A detailed description of the methods used in preparing these estimates is provided in the current NFLIS Statistical Methodology publication at https://www.nflis.deadiversion.usdoj.gov/nflisdata/docs/NFLIS-2017-StatMethodology.pdf.



Sections 3 and 4 present actual reported data rather than national and regional estimates; all data reported by NFLIS-Drug State and local laboratories are included. Section 3 presents a geographic information system analysis of flualprazolam and MDMB-4en-PINACA reports by State and by county for selected States. Section 4 presents drugs reported by selected laboratories in cities across the country.

Appendix A presents annual national and regional trends for 2001 through 2020. Appendix B includes a list of NFLIS-Drug participating and reporting laboratories. The benefits and limitations of NFLIS-Drug are presented in Appendix C. A key area of improvement for NFLIS-Drug includes ongoing enhancements to the NFLIS-Drug Data Query System (DQS); Appendix D summarizes these DQS enhancement activities and provides details on the updated NFLIS website.


NORTHEAST
ME
Augusta
Waterbury
VT
NH
Concord
Sudbury
University of MA Medical Center, Worcester
Providence
RI
MA
Hartford
CT
Onondaga County
NY
Albany
Niagara County
Erie County
Port Crane
Newburgh
Olean
Suffolk County
Westchester County
Nassau County
New York City
Hudson County
Burlington County
Ocean County
Wyoming
Yonkers
Union County
Hamilton
NJ
Little Falls
Bethlehem
Philadelphia
Sea Girt
Hammonton
Media
Harrisburg
Greensburg
Pikesville
Baltimore City
Cape May
Baltimore County
Montgomery County
Anne Arundel County
Prince George's County
Berlin
Hagerstown
Fairfax
DE
MD
VA
Richmond
Norfolk
Roanoke
Greensboro
Raleigh/Wake County
Raleigh
NC
Asheville
Knoxville
Charlotte-Mecklenburg PD
Spartanburg
Anderson/Oconee
Columbia
Richland County
Charleston
SC
Savannah
Jacksonville
Orlando
Pinellas County
Tampa
Manatee County
Sarasota County
Fort Myers
FL
Indian River
Palm Beach County
Broward County
Miami-Dade PD
Cleveland
Lorain County
Cuyahoga County
Erie
Lake County
Richfield
Toledo
Mansfield PD
OH
Springfield
Bowling Green
Canton-Stark County
Columbus PD
Columbus
London
Newark PD
Miami Valley
Hamilton County
Cold Springs
Ashland
South Charleston
WV
Evansville
Louisville
Frankfort
KY
London
Madisonville
Knoxville
Nashville
Metro Nashville
TN
Memphis
Huntsville
Tupelo
Batesville
Birmingham
Decatur
Macon
Auburn
Midland
GA
Montgomery
AL
Moultrie
Jackson PD
MS
Jackson
Meridian
North LA
LA
Mobile
Gulfport
Pensacola
Southwest LA
Baton Rouge
Acadiana
St. Tammany Parish
New Orleans
Jefferson Parish
Grayling
MI
Oakland County
Bridgeport
Sterling Heights
East Lansing
Detroit
Northville
Milwaukee
Grand Rapids
Madison
Kenosha County
Wausau
WI
St. Paul
MIDWEST
Rapid City
SD
Pierre
ND
Bismarck
Bemidji
Midwest Regional
Marquette
MN
Rockford
Chicago
Northern Illinois
DuPage County
Joliet
Fort Wayne
Lowell
IA
Des Moines
Cheyenne
NE
Lincoln
Greely
Denver
Denver
Unified Metro (Englewood)
Colorado Springs
Pueblo
Morton
Indianapolis-Marion County
Indianapolis
IN
Springfield
Macon
IL
St. Joseph
KCMO Regional
Johnson County
Topeka
KS
Great Bend
Jefferson City
Park Hills
St. Louis
St. Charles County
Belleville
MO
St. Louis County
Sedgwick County
Pittsburg
Springfield
Cape Girardeau
Willow Springs
Carthage
Lowell
Enid
Tulsa
Tahlequah
OK
Edmond
Amarillo
Oklahoma City
McAlester
Little Rock
Hope
AR
Hobbs
Lubbock
SOUTH
Garland
Fort Worth
Dallas
Abilene
Midland
Tyler
Waco
TX
Austin
Houston
Houston
Bexar County
Harris County
Brazoria County
Laredo
Corpus Christi
McAllen
Honolulu
HI
AK
Anchorage
San Juan
PR
Mayagüez
Ponce
Reporting State Laboratory System
Participating State Laboratory System
(Not Reporting)
No State Laboratory System
Individual State Laboratory
Reporting Local Laboratory
Participating Local Laboratory
(Not Reporting)

Section 1

NATIONAL AND REGIONAL ESTIMATES

This section presents national and regional estimates of drugs *submitted* to State and local laboratories from January through December 2020 that were *analyzed* by March 31, 2021. Trends are presented for selected drugs from 2006 through 2020.

National and regional drug estimates presented in the following section include *all* drug reports contained in laboratories' reported drug items. The NEAR approach, which uses all NFLIS-Drug reporting laboratories, was used to produce estimates for the Nation and for the U.S. census regions. A detailed description of the methods used in preparing these estimates is provided in the current NFLIS Statistical Methodology publication.

1.1 Drug Reports

In 2020, a total of 1,283,971 drug reports were identified by State and local forensic laboratories in the United States. This estimate is a decrease of about 16% from the 1,521,360 drug reports identified during 2019 (see the Notice of Decrease in Drug Cases). Table 1.1 presents the 25 most frequently identified drugs for the Nation and their prevalence in each of the U.S. census regions.

The top 25 drugs accounted for 86% of all drugs analyzed in 2020. Nationally, approximately three-quarters of all drugs reported in NFLIS-Drug were identified as methamphetamine (377,787 reports or 29%), cannabis/THC (188,735 reports or 15%), cocaine (153,372 reports or 12%), fentanyl (117,045 reports or 9%), or heroin (98,077 reports or 8%).

Five additional narcotic analgesics were among the top 25 drugs: buprenorphine (17,077 reports), oxycodone (17,038 reports), tramadol (12,086 reports), hydrocodone (8,670 reports), and acetyl fentanyl (4,527 reports). Five tranquilizers and depressants were included: alprazolam (19,810 reports), clonazepam (6,074 reports), etizolam (4,944 reports), flualprazolam (4,569 reports), and phencyclidine (PCP) (3,370 reports). There were also three phenethylamines: eutylone (12,969 reports), amphetamine (9,051 reports), and MDMA (6,023 reports). In addition, there was one synthetic cannabinoid: MDMB-4en-PINACA (4,521 reports). The controlled substances ANPP (11,077 reports), psilocin/psilocibin (5,565 reports), and lysergic acid diethylamide (LSD) (4,760 reports) were also included in the top 25 most frequently identified drugs, as were the following noncontrolled substances: naloxone (4,112 reports), cannabidiol (CBD) (4,043 reports), and gabapentin (2,928 reports).

Table 1.1 NATIONAL AND REGIONAL ESTIMATES FOR THE 25 MOST FREQUENTLY IDENTIFIED DRUGS[1]

Estimated number and percentage of total drug reports submitted to laboratories from January 1, 2020, through December 31, 2020, and analyzed by March 31, 2021[2]

	National		West		Midwest		Northeast		South	
Drug	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Methamphetamine	377,787	29.42%	100,827	43.90%	89,262	28.31%	14,605	7.53%	173,094	31.76%
Cannabis/THC	188,735	14.70%	23,894	10.40%	45,631	14.47%	34,115	17.59%	85,095	15.61%
Cocaine	153,372	11.95%	12,037	5.24%	33,946	10.77%	40,058	20.65%	67,331	12.35%
Fentanyl	117,045	9.12%	14,691	6.40%	35,481	11.25%	33,140	17.08%	33,733	6.19%
Heroin	98,077	7.64%	31,277	13.62%	19,733	6.26%	19,866	10.24%	27,200	4.99%
Alprazolam	19,810	1.54%	3,266	1.42%	4,050	1.28%	2,225	1.15%	10,270	1.88%
Buprenorphine	17,077	1.33%	1,920	0.84%	3,766	1.19%	2,991	1.54%	8,400	1.54%
Oxycodone	17,038	1.33%	1,636	0.71%	4,025	1.28%	3,053	1.57%	8,323	1.53%
Eutylone	12,969	1.01%	74	0.03%	2,385	0.76%	949	0.49%	9,561	1.75%
Tramadol	12,086	0.94%	560	0.24%	3,955	1.25%	3,571	1.84%	3,999	0.73%
ANPP	11,077	0.86%	916	0.40%	3,369	1.07%	4,321	2.23%	2,471	0.45%
Amphetamine	9,051	0.70%	830	0.36%	2,321	0.74%	1,247	0.64%	4,653	0.85%
Hydrocodone	8,670	0.68%	1,078	0.47%	2,156	0.68%	324	0.17%	5,111	0.94%
Clonazepam	6,074	0.47%	498	0.22%	1,459	0.46%	1,003	0.52%	3,114	0.57%
MDMA	6,023	0.47%	1,707	0.74%	2,122	0.67%	560	0.29%	1,634	0.30%
Psilocin/psilocibin	5,565	0.43%	1,810	0.79%	1,645	0.52%	557	0.29%	1,553	0.28%
Etizolam	4,944	0.39%	798	0.35%	868	0.28%	435	0.22%	2,843	0.52%
Lysergic acid diethylamide (LSD)	4,760	0.37%	918	0.40%	1,851	0.59%	501	0.26%	1,490	0.27%
Flualprazolam	4,569	0.36%	610	0.27%	1,770	0.56%	323	0.17%	1,866	0.34%
Acetyl fentanyl	4,527	0.35%	65	0.03%	2,114	0.67%	1,292	0.67%	1,056	0.19%
MDMB-4en-PINACA	4,521	0.35%	20	0.01%	1,081	0.34%	781	0.40%	2,639	0.48%
Naloxone	4,112	0.32%	257	0.11%	566	0.18%	714	0.37%	2,576	0.47%
Cannabidiol (CBD)	4,043	0.31%	458	0.20%	1,186	0.38%	289	0.15%	2,110	0.39%
Phencyclidine (PCP)	3,370	0.26%	162	0.07%	670	0.21%	643	0.33%	1,895	0.35%
Gabapentin	2,928	0.23%	149	0.06%	545	0.17%	603	0.31%	1,631	0.30%
Top 25 Total	1,098,232	85.53%	200,460	87.29%	265,958	84.34%	168,166	86.69%	463,647	85.07%
All Other Drug Reports	185,739	14.47%	29,193	12.71%	49,375	15.66%	25,823	13.31%	81,348	14.93%
Total Drug Reports[3]	1,283,971	100.00%	229,653	100.00%	315,333	100.00%	193,989	100.00%	544,996	100.00%

[1] *Sample n's and 95% confidence intervals for all estimates are available on request.*

[2] *For most drugs, there is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing data from 2020 with data from previous years.*

[3] *Numbers and percentages may not sum to totals because of rounding.*

1.2 Drug Cases Analyzed

Drug analysis results are also reported to NFLIS-Drug at the case level. These case-level data typically describe all drugs identified in a drug-related incident, although a small proportion of laboratories may assign a single case number to all drug submissions related to an entire investigation. Table 1.2 presents national estimates of the top 25 drug-specific cases. This table illustrates the number of cases that contained one or more reports of the specified drug. In 2020, there were 1,009,958 drug-specific cases submitted to and analyzed by State and local forensic laboratories, representing a 14% decrease from the 1,171,698 drug-specific cases in 2019 (see the Notice of Decrease in Drug Cases).

Among all drug cases, methamphetamine was the most common drug reported during 2020. Nationally, 41% of drug cases contained one or more reports of methamphetamine, followed by cannabis/THC, which was identified in 19% of all drug cases. About 17% of drug cases contained cocaine, and 13% contained fentanyl. Heroin was reported in 11% of cases, and alprazolam, buprenorphine, and oxycodone were each reported in 2% of cases.

Counterfeit prescription pills containing fentanyl

Table 1.2 *National Case Estimates*
Top 25 estimated number of drug-specific cases and their percentage of distinct cases, January 1, 2020, through December 31, 2020[1]

Drug	Number	Percent
Methamphetamine	293,424	40.58%
Cannabis/THC	138,085	19.10%
Cocaine	122,874	16.99%
Fentanyl	92,227	12.76%
Heroin	78,672	10.88%
Alprazolam	17,160	2.37%
Buprenorphine	15,016	2.08%
Oxycodone	14,199	1.96%
Tramadol	10,176	1.41%
ANPP	10,047	1.39%
Eutylone	8,661	1.20%
Amphetamine	7,942	1.10%
Hydrocodone	7,786	1.08%
Clonazepam	5,526	0.76%
Psilocin/psilocibin	4,927	0.68%
MDMA	4,816	0.67%
Etizolam	4,321	0.60%
Lysergic acid diethylamide (LSD)	4,183	0.58%
Flualprazolam	3,960	0.55%
Acetyl fentanyl	3,897	0.54%
Naloxone	3,815	0.53%
MDMB-4en-PINACA	3,724	0.51%
Cannabidiol (CBD)	3,224	0.45%
Phenethylamine	3,115	0.43%
Gabapentin	2,566	0.35%
Top 25 Total	864,344	119.54%
All Other Drugs	145,614	20.14%
Total All Drugs[2]	1,009,958	139.68%[3]

[1] *For most drugs, there is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing data from 2020 with data from previous years.*

[2] *Numbers and percentages may not sum to totals because of rounding.*

[3] *Multiple drugs can be reported in a single case, so the cumulative percentage exceeds 100%. The estimated national total of distinct case percentages is based on 723,067 distinct cases submitted to State and local laboratories from January 1, 2020, through December 31, 2020, and analyzed by March 31, 2021.*

Drugs Reported by Federal Laboratories

The majority of Federal drug reports presented here are from eight U.S. Drug Enforcement Administration (DEA) laboratories. The data reflect results of substance evidence from drug seizures, undercover drug buys, and other evidence analyzed at DEA laboratories across the country. DEA data include results for drug cases submitted by DEA agents, other Federal law enforcement agencies, and select local police agencies. Although DEA data capture domestic and international drug cases, the results presented in this section describe only those drugs obtained in the United States. In addition to drug reports from the DEA, reports from seven U.S. Customs and Border Protection (CBP) laboratories are included.

A total of 57,321 drugs were submitted to DEA and CBP laboratories in 2020 and analyzed by March 31, 2021, or about 5% of the estimated 1.3 million drugs reported by NFLIS-Drug State and local laboratories during this period. In 2020, more than half of the drugs reported by DEA and CBP laboratories were identified as methamphetamine (25%), cocaine (11%), fentanyl (10%), or heroin (8%).

DRUGS MOST FREQUENTLY REPORTED BY FEDERAL LABORATORIES[1]

Number and percentage of drugs submitted to laboratories from January 1, 2020, through December 31, 2020, and analyzed by March 31, 2021

Drug	Number	Percent
Methamphetamine	14,269	24.89%
Cocaine	6,459	11.27%
Fentanyl	5,821	10.16%
Heroin	4,585	8.00%
Cannabis/THC	1,634	2.85%
Tramadol	836	1.46%
Xylazine	491	0.86%
ANPP	424	0.74%
MDMA	388	0.68%
Oxycodone	370	0.65%
All Other Drugs	22,044	38.46%
Total Drug Reports	57,321	100.00%[2]

[1] *Federal drug reports in this table include 52,378 reports from DEA laboratories and 4,943 reports from CBP laboratories.*

[2] *Numbers and percentages may not sum to totals because of rounding.*

1.3 National and Regional Drug Trends

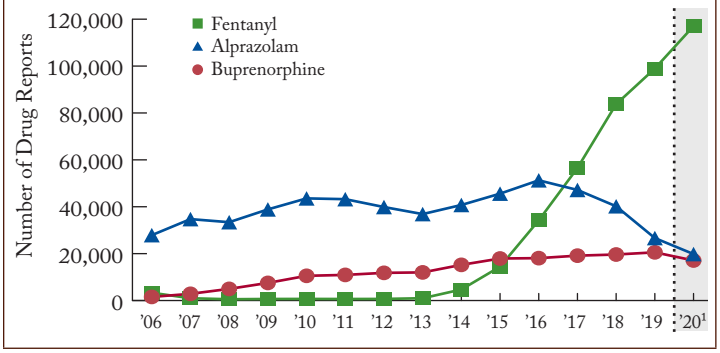
The remainder of this section presents national and regional trends of selected drugs submitted to State and local laboratories during each annual data reference period and analyzed within three months of the end of each period for the most recent 15 years (from 2006 through 2020). National and regional trends for 2001 through 2020 are presented in Appendix A. The trend analyses test the data for the presence of linear and curved trends using statistical methods described in more detail in the current NFLIS Statistical Methodology publication. Because the trends are determined through regression modeling, the descriptions of the trends detailed in this section may differ slightly from the plotted lines of estimates featured in Figures 1.1 through 1.16. Estimates include all drug reports identified among the NFLIS-Drug laboratories' reported drug items. The total number of cases submitted to and analyzed by NFLIS-Drug reporting laboratories for the NFLIS-Drug 2020 Annual Report is noticeably lower than the number reported in the previous year. The decrease in reporting is likely due to the impacts of the COVID-19 pandemic. As a result, use caution when comparing data for 2020 with data from previous years.

National prescription drug trends

Figures 1.1 and 1.2 present national trends for the estimated number of prescription drug reports that were identified as fentanyl, alprazolam, buprenorphine, oxycodone, tramadol, and amphetamine. Note that laboratories do not identify whether reports are for prescription drugs that are licitly or illicitly manufactured. Notable results include the following:

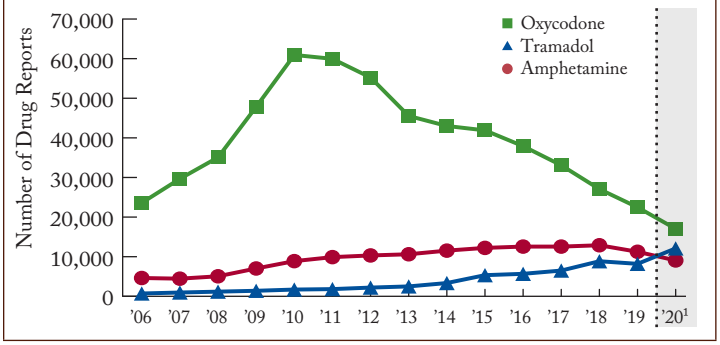
- Fentanyl reports decreased slightly from 2006 to 2007, then remained steady until dramatic increases occurred from 2014 through 2020.

Figure 1.1 National trend estimates for fentanyl, alprazolam, and buprenorphine, January 2006–December 2020



[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Figure 1.2 National trend estimates for oxycodone, tramadol, and amphetamine, January 2006–December 2020



- Alprazolam reports showed an overall increase from 2006 to 2010, followed by a decrease in reports from 2011 to 2013. Reports greatly increased from 2014 to 2016, then decreased through 2020.
- Buprenorphine reports steadily increased from 2006 through 2010 and increased again from 2013 to 2019. Reports decreased in 2020.
- Oxycodone reports dramatically increased from 2006 to 2010, then steadily declined through 2020.
- Tramadol reports began to steadily increase in 2007, with a significant increase in reports from 2019 to 2020.
- Amphetamine reports increased from 2007 through 2018, followed by decreases through 2020.

Significance tests were also performed on differences from 2019 to 2020 to identify more recent changes. Across these two periods, reports of fentanyl (from 98,954 to 117,045 reports) and tramadol (from 8,196 to 12,086 reports) increased significantly ($p < .05$). Reports of alprazolam (from 26,635 to 19,810 reports), buprenorphine (from 20,552 to 17,077 reports), oxycodone (from 22,470 to 17,038 reports), and amphetamine (from 11,242 to 9,051 reports) decreased significantly.

Other national drug trends

Figures 1.3 and 1.4 present national trends for reports of methamphetamine, cannabis/THC, cocaine, heroin, eutylone, and MDMA. Notable results include the following:

- Methamphetamine reports decreased from 2006 through 2010, increased from 2011 through 2019, and decreased in 2020.
- Cannabis/THC reports slightly increased from 2006 to 2009 and decreased from 2009 through 2020.
- Cocaine reports substantially decreased from 2006 through 2014, then slightly increased through 2017, followed by a decrease through 2020.
- Heroin reports increased from 2007 through 2015, then decreased through 2020.
- Reports of eutylone first appeared in 2017. Eutylone reports increased from 31 reports in 2017 to almost 13,000 reports in 2020.
- MDMA reports increased from 2006 through 2007. A decrease in reports occurred from 2010 to 2013, followed by a gradual increase through 2019 and a significant decrease in 2020.

More recently, from 2019 to 2020, reports of eutylone (from 5,787 to 12,969 reports) increased significantly ($p < .05$), while reports of methamphetamine (from 417,867 to 377,787 reports), cannabis/THC (from 282,679 to 188,735 reports), cocaine (from 209,086 to 153,372 reports), heroin (from 127,641 to 98,077 reports), and MDMA (from 7,238 to 6,023 reports) decreased significantly.

Figure 1.3 National trend estimates for methamphetamine, cannabis/THC, and cocaine, January 2006–December 2020

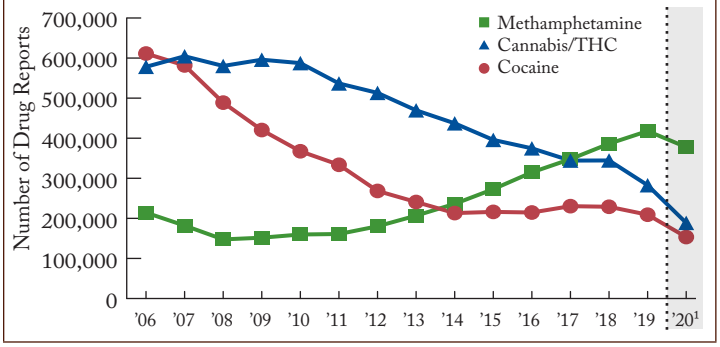
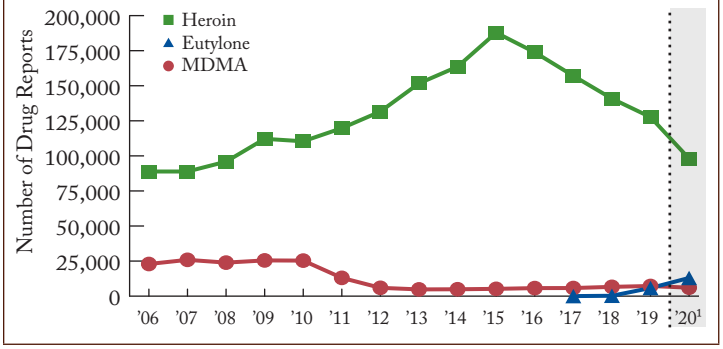


Figure 1.4 National trend estimates for heroin, eutylone, and MDMA, January 2006–December 2020[2]



[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

[2] *Estimates are not available for eutylone for 2006 through 2016 because eutylone was first reported to NFLIS-Drug in 2017.*

Regional prescription drug trends

Figures 1.5 through 1.10 show regional trends per 100,000 persons aged 15 or older for reports of fentanyl, alprazolam, buprenorphine, oxycodone, tramadol, and amphetamine from 2006 to 2020. These figures illustrate changes in prescription drugs reported over time, accounting for the population aged 15 years or older in each U.S. census region. Notable trend results include the following:

- For fentanyl, the Northeast showed a gradual increase from 2006 to 2014, followed by considerable increases from 2015 through 2019 and a recent decrease in 2020. Reports were steady from 2006 through 2013 for the Midwest, West, and South until substantial increases began in 2014.
- For alprazolam, the West showed an increasing curved trend line through 2018, with subsequent decreases in 2019 and 2020. The Midwest, Northeast, and South had increasing curved trend lines, with increases from roughly 2006 to 2010, followed by slight decreases through 2013. Increases in reports occurred through 2016, followed by decreases from 2017 through 2020.
- Buprenorphine reports increased from 2006 through 2010 for the Midwest, South, and Northeast, while the increase continued into 2011 for the West. The increase in reports slowed for all regions from 2011 to 2013. Reports then continued to increase through 2020 in the West while decreasing from 2019 to 2020 in the Midwest, South, and Northeast.
- For oxycodone, all four regions showed similar trend lines, with the highest number of reports occurring in 2010 or 2011, followed by a steady decline in the Northeast and South and a more gradual decrease in the West and Midwest through 2020.
- For tramadol, the Midwest and South showed a steady increase in reports from 2011 through 2016. Larger increases in reports in the Midwest and Northeast followed through 2020. Reports in the West increased over time but remained at less than one report per 100,000 persons in 2020.
- For amphetamine, the Midwest, Northeast, and South showed a steady increase in reports from 2007 through 2015 and 2016. The number of reports decreased significantly for all three regions in 2020. The West had a flatter trend line from 2006 through 2020.

More recently, from 2019 to 2020, fentanyl reports increased significantly ($p < .05$) in the Midwest, West, and South and decreased significantly in the Northeast. Tramadol reports increased significantly in all regions except the West. Alprazolam, buprenorphine, oxycodone, and amphetamine reports decreased significantly in all regions except the West.

Figure 1.5 Regional trends in fentanyl reported per 100,000 persons aged 15 or older, January 2006–December 2020

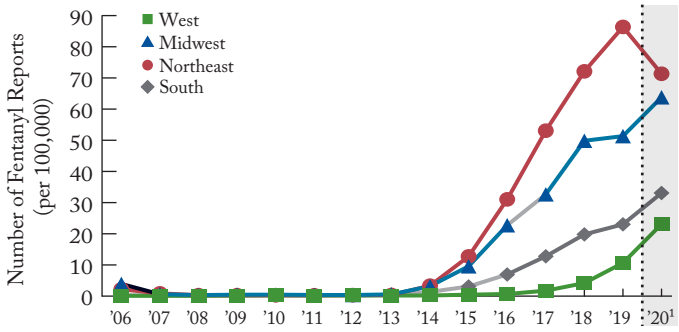


Figure 1.6 Regional trends in alprazolam reported per 100,000 persons aged 15 or older, January 2006–December 2020

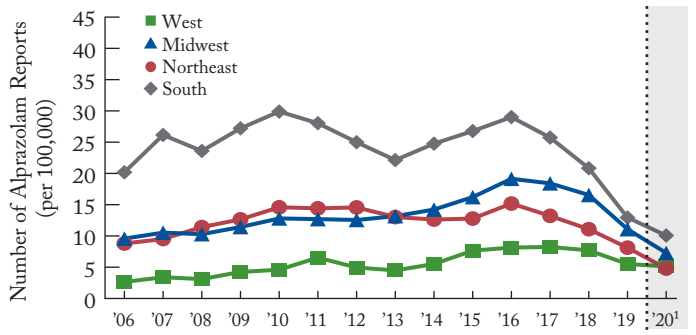
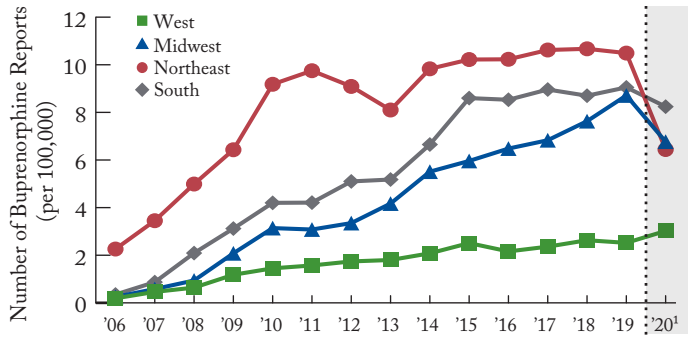


Figure 1.7 Regional trends in buprenorphine reported per 100,000 persons aged 15 or older, January 2006–December 2020



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Figure 1.8 Regional trends in oxycodone reported per 100,000 persons aged 15 or older, January 2006–December 2020

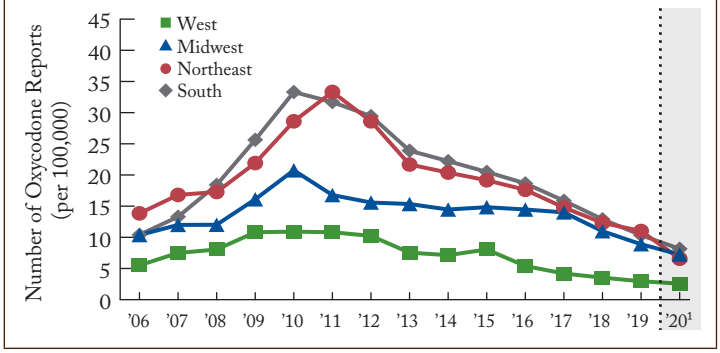


Figure 1.9 Regional trends in tramadol reported per 100,000 persons aged 15 or older, January 2006–December 2020

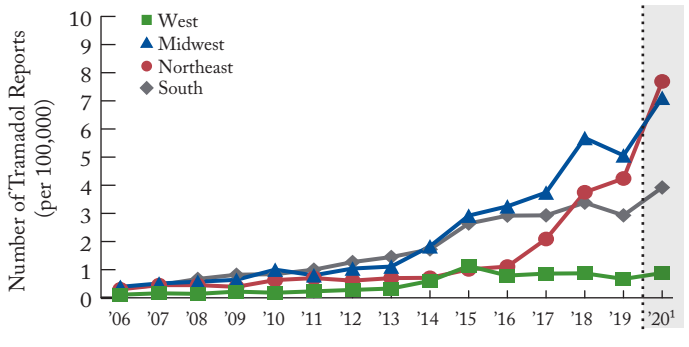
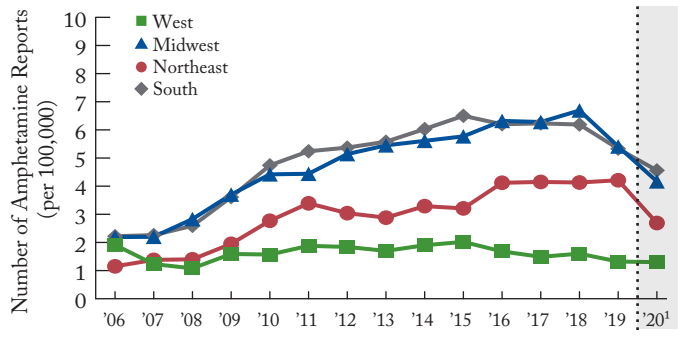


Figure 1.10 Regional trends in amphetamine reported per 100,000 persons aged 15 or older, January 2006–December 2020



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Other regional drug trends

Figures 1.11 through 1.16 present regional trends per 100,000 persons aged 15 or older for methamphetamine, cannabis/THC, cocaine, heroin, eutylone, and MDMA reports from 2006 through 2020. Notable trends include the following:

- For methamphetamine, the Northeast had an increasing curved trend line, with higher rates of increase from 2018 through 2020. From 2006 to 2020, the annual number of reports per 100,000 for the West decreased from over 240 to around 160 reports, while reports per 100,000 for the Midwest and South increased from around 60 reports in 2006 to between 180 and 190 reports in 2019, then decreased to numbers similar to that in the West in 2020.
- In all four regions, the trend lines for cannabis/THC exhibited rolling decreases from 2006 through 2020.
- For cocaine, all four regions had rolling decreasing trend lines. All regions had decreases through at least 2014. Increases in reports occurred from 2015 through 2017 in the Midwest and through 2018 in the Northeast. All regions showed a decrease from 2018 to 2020.
- Heroin reports in the Northeast and South steadily increased from 2011 through 2015, while the West and Midwest had similar increases in reports from 2008 through 2015. All regions except the West had considerable decreases in reports from 2015 through 2020.
- Reports of eutylone first appeared in 2017. From 2018 to 2020, eutylone reports per 100,000 increased from 0.2 to 9.4 per 100,000 in the South. From 2019 to 2020, eutylone reports in the Midwest increased from 0.9 to 4.3 per 100,000 and in the Northeast from 0.7 to 2.0 per 100,000. There was a much more gradual increase in eutylone reports in the West, with only 0.1 reports per 100,000 in 2020.
- For MDMA, the trend line for the South showed a decrease from 2006 through 2009, while all other regions showed an increase in reports. The West and Northeast had much steeper increases during this time. All of the regional trend lines have remained flat since 2013, with recent decreases from 2019 to 2020.

From 2019 to 2020, methamphetamine reports increased significantly ($p < .05$) in the Northeast, while decreasing significantly in the other three regions. Cannabis/THC and cocaine reports decreased significantly in all regions. Heroin and MDMA reports decreased significantly in all regions except the West. Eutylone reports increased significantly in all regions.

Figure 1.11 Regional trends in methamphetamine reported per 100,000 persons aged 15 or older, January 2006–December 2020

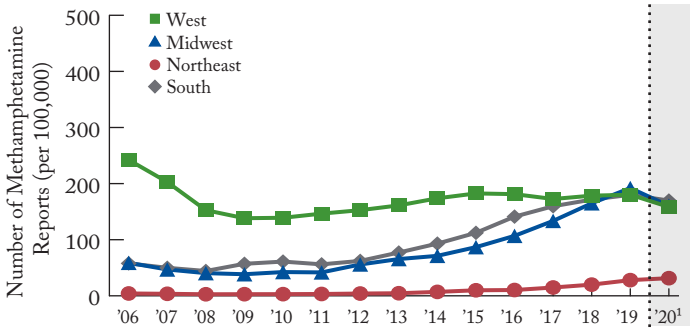


Figure 1.12 Regional trends in cannabis/THC reported per 100,000 persons aged 15 or older, January 2006–December 2020

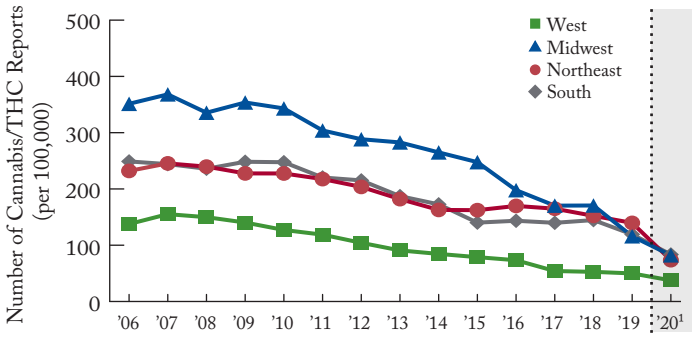


Figure 1.13 Regional trends in cocaine reported per 100,000 persons aged 15 or older, January 2006–December 2020

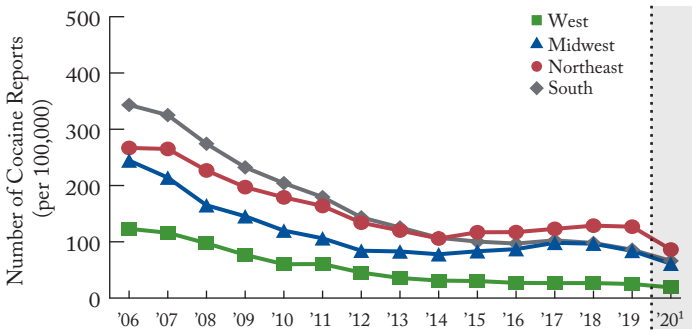


Figure 1.14 Regional trends in heroin reported per 100,000 persons aged 15 or older, January 2006–December 2020

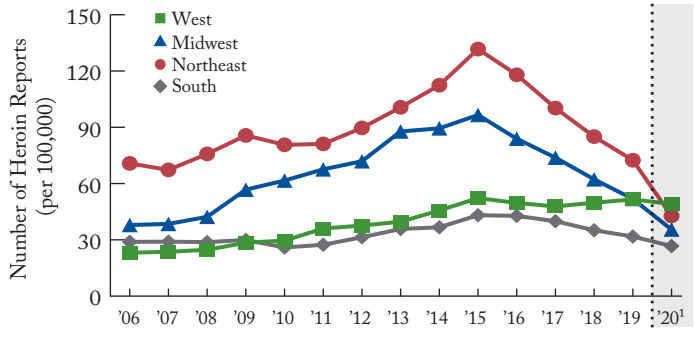


Figure 1.15 Regional trends in eutylone reported per 100,000 persons aged 15 or older, January 2006–December 2020[2]

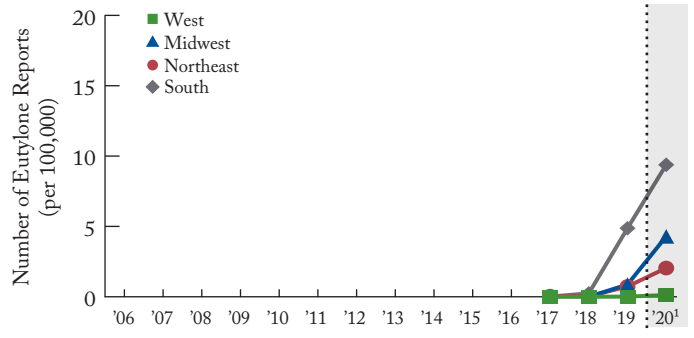
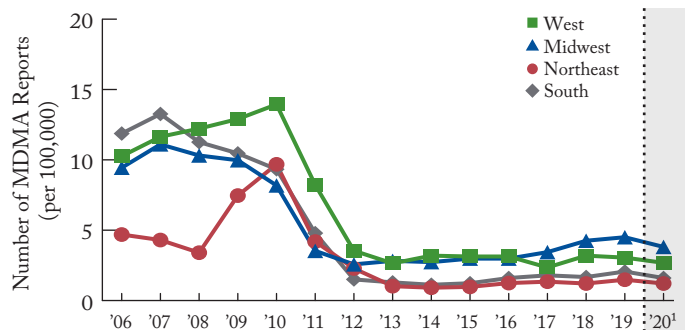


Figure 1.16 Regional trends in MDMA reported per 100,000 persons aged 15 or older, January 2006–December 2020



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

[2] *Estimates are not available for eutylone for 2006 through 2016 because eutylone was first reported to NFLIS-Drug in 2017.*

Section 2

MAJOR DRUG CATEGORIES

Section 2 presents national and regional estimates of specific drugs by drug category using the NEAR approach (see the current NFLIS Statistical Methodology publication for a description of the methodology). All drugs contained in laboratories' drug items are included. An estimated 1,283,971 drugs were submitted to State and local laboratories during 2020 and were analyzed by March 31, 2021.

2.1 Narcotic Analgesics

From 2018 to 2019, opioid overdose deaths increased by 6.5% in the United States. In 2019, there were a total of 70,630 drug overdose deaths, with opioids accounting for nearly 50,000 of those deaths (70.6%).[i] Of the nearly 50,000 opioid overdose deaths, synthetic opioids (excluding methadone) accounted for more than half (51.5%). Although the Northeast had the highest percentage of synthetic opioid–related deaths, from 2018 to 2019, the largest increase in the rate of synthetic opioid–related deaths occurred in the West (67.9% increase).[ii] Nationally, rates of synthetic opioid–related deaths increased slightly from 9.9 to 11.4 per 100,000 population from 2018 to 2019.[iii] Provisional data released by the Centers for Disease Control and Prevention (CDC) indicate that there were over 81,000 drug overdose deaths in 2020. Of reporting jurisdictions, 37 of 38 reported increases in synthetic opioid overdose deaths, with 18 jurisdictions reporting increases greater than 50%.[iv]

A total of 198,694 narcotic analgesic reports were identified by NFLIS-Drug laboratories in 2020, representing 15% of all drug reports (Table 2.1). Fentanyl (59%) accounted for more than one-half of narcotic analgesic reports, while buprenorphine (9%), oxycodone (9%), tramadol (6%), and ANPP (6%) together accounted for almost one-third of the reports. Other narcotic analgesics reported included hydrocodone (4%) and acetyl fentanyl (2%). The types of narcotic analgesics reported varied considerably by region (Figure 2.1). In comparison with reports from other regions in the country, the West reported the highest percentage of fentanyl (67%), followed by the Northeast and Midwest (66% and 60%, respectively). The South and West reported the highest percentages of buprenorphine (12% and 9%, respectively) and oxycodone (12% and 7%, respectively), while the Northeast and Midwest reported the highest percentages of tramadol (7% each).

---

[i] National Institute on Drug Abuse (NIDA). (2021). *Opioid overdose crisis*. Retrieved from https://www.drugabuse.gov/drug-topics/opioids/opioid-overdose-crisis

[ii] Centers for Disease Control and Prevention (CDC). (2021). *Drug overdose: Drug overdose deaths.* Retrieved from https://www.cdc.gov/drugoverdose/deaths/index.html

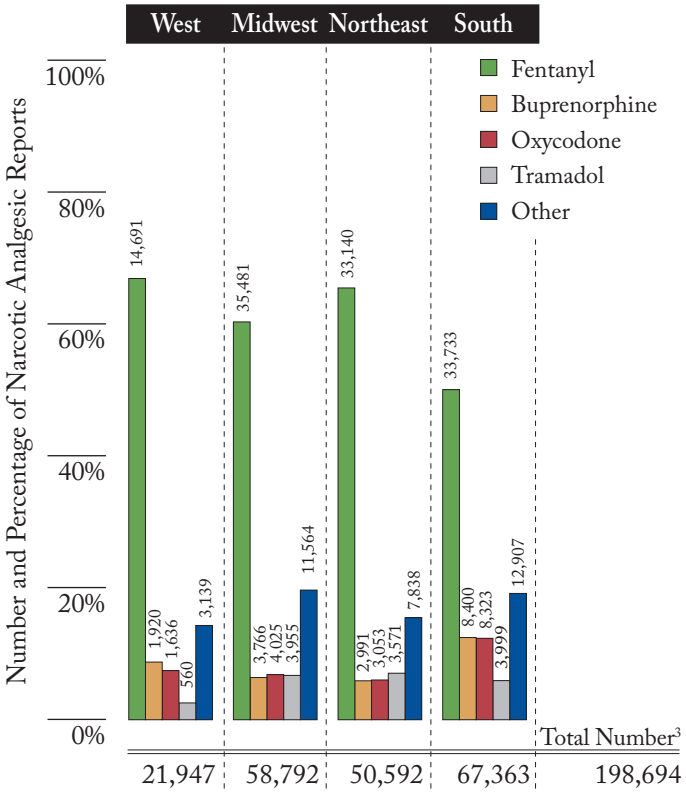
[iii] Mattson, C. L., Tanz, L. J., Quinn, K., Kariisa, M., Patel, P., & Davis, N. L. (2021). Trends and geographic patterns in drug and synthetic opioid overdose deaths — United States, 2013–2019. *Morbidity and Mortality Weekly Report, 70*(6), 202–207. https://doi.org/10.15585/mmwr.mm7006a4

[iv] Centers for Disease Control and Prevention (CDC). (2020). *Overdose deaths accelerating during COVID-19: Expanded prevention efforts needed.* Retrieved from https://www.cdc.gov/media/releases/2020/p1218-overdose-deaths-covid-19.html

Table 2.1 *NARCOTIC ANALGESICS*
Number and percentage of narcotic analgesic reports in the United States, 2020[1]

Narcotic Analgesic Reports	Number	Percent
Fentanyl	117,045	58.91%
Buprenorphine	17,077	8.59%
Oxycodone	17,038	8.57%
Tramadol	12,086	6.08%
ANPP[2]	11,077	5.57%
Hydrocodone	8,670	4.36%
Acetyl fentanyl	4,527	2.28%
Morphine	2,290	1.15%
Methadone	1,496	0.75%
Codeine	1,413	0.71%
Carfentanil	1,394	0.70%
Hydromorphone	1,079	0.54%
Valeryl fentanyl	515	0.26%
Phenethyl-4-ANPP[2]	459	0.23%
Oxymorphone	305	0.15%
Other narcotic analgesics	2,223	1.12%
Total Narcotic Analgesic Reports[3]	198,694	100.00%
Total Drug Reports	1,283,971	

Figure 2.1 Distribution of narcotic analgesic reports within region, 2020[1]



[1] *Includes drug reports submitted to laboratories from January 1, 2020, through December 31, 2020, that were analyzed by March 31, 2021. For most drugs, the 2020 estimates show a noticeable decrease, likely due to the impacts of the COVID-19 pandemic. Use caution when comparing data from 2020 with data from previous years.*

[2] *Because of the interest in fentanyl and fentanyl-related compounds, ANPP and phenethyl-4-ANPP, immediate precursors of fentanyl and not narcotic analgesics, are shown in this table.*

[3] *Numbers and percentages may not sum to totals because of rounding.*

2.2 TRANQUILIZERS AND DEPRESSANTS

Tranquilizers and depressants, including benzodiazepines and barbituates, are substances that slow normal brain function and as a result are often used to treat sleep and anxiety disorders. Misuse of these substances can lead to dependence.[v] Illicit benzodiazepine abuse alone is rarely fatal, but when combined with use of other medications or illicit substances, it can lead to poor health outcomes resulting in death.[vi]

Approximately 4% of all drug reports in 2020, or 50,919 reports, were identified by NFLIS-Drug laboratories as tranquilizers and depressants (Table 2.2). Alprazolam accounted for 39% of reported tranquilizers and depressants. Approximately 12% of tranquilizers and depressants were identified as clonazepam, followed by etizolam (10%) and flualprazolam (9%). Alprazolam was identified in 47% of the tranquilizer and depressant reports in the West, 42% in the South, 34% in the Northeast, and 32% in the Midwest (Figure 2.2). Clonazepam accounted for 15% of the tranquilizers and depressants identified in the Northeast and for 13% of these substances identified in the South. The South reported the highest percentage of etizolam reports (12%), while the Midwest reported the highest percentage of flualprazolam reports (14%).

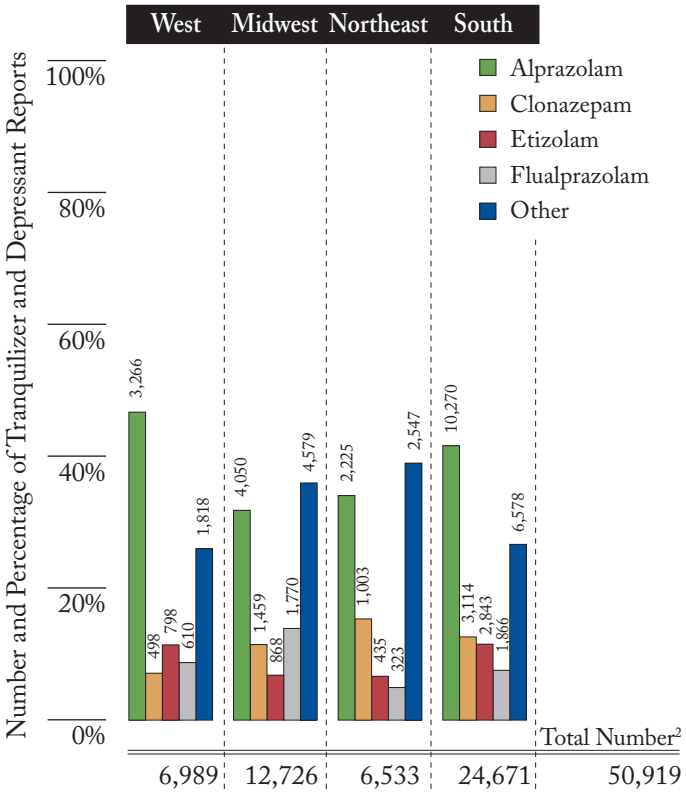
Table 2.2 *TRANQUILIZERS AND DEPRESSANTS*
Number and percentage of tranquilizer and depressant reports in the United States, 2020[1]

Tranquilizer and Depressant Reports	Number	Percent
Alprazolam	19,810	38.91%
Clonazepam	6,074	11.93%
Etizolam	4,944	9.71%
Flualprazolam	4,569	8.97%
Phencyclidine (PCP)	3,370	6.62%
Clonazolam	2,771	5.44%
Diazepam	1,920	3.77%
Ketamine	1,881	3.69%
Lorazepam	1,057	2.08%
Carisoprodol	693	1.36%
Zolpidem	550	1.08%
Flubromazolam	500	0.98%
Cyclobenzaprine	481	0.94%
Adinazolam	313	0.61%
Hydroxyzine	300	0.59%
Other tranquilizers and depressants	1,686	3.31%
Total Tranquilizer and Depressant Reports[3]	50,919	100.00%
Total Drug Reports	1,283,971	

[v] National Institute on Drug Abuse (NIDA). (2018, March). *DrugFacts: Prescription CNS depressants.* Retrieved from https://www.drugabuse.gov/publications/drugfacts/prescription-cns-depressants

[vi] Schmitz, A. (2016). Benzodiazepine use, misuse, and abuse: A review. *Mental Health Clinician, 6*(3), 120–126. https://doi.org/10.9740/mhc.2016.05.120

Figure 2.2 Distribution of tranquilizer and depressant reports within region, 2020[1]



2.3 *Anabolic Steroids*

Although anabolic steroids have various uses for legitimate medical conditions, they are often used illicitly to promote muscle growth, enhance athletic performance, and improve physical appearance. When abused, steroids can have adverse effects such as hair loss, acne, and liver damage resulting in jaundice.[vii]

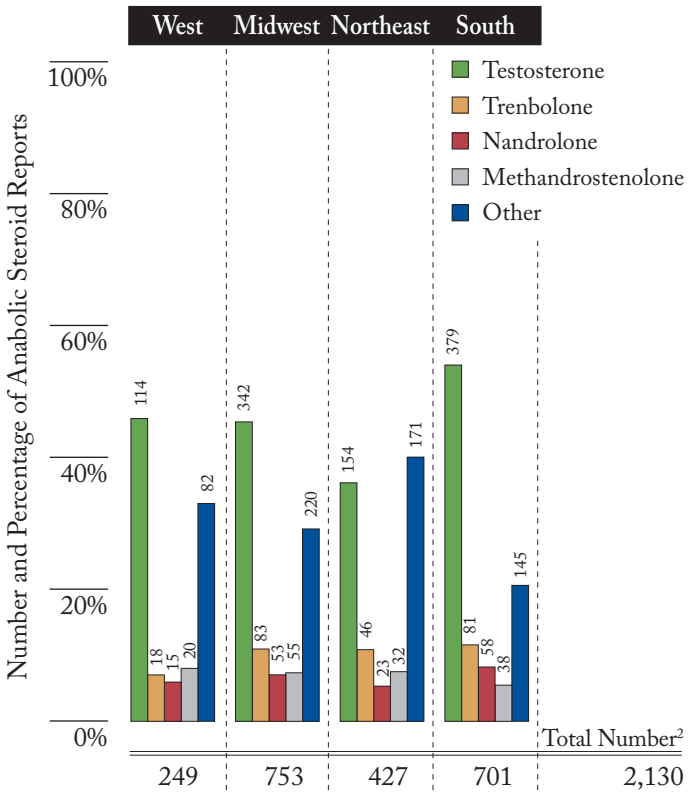
During 2020, a total of 2,130 drug reports were identified by NFLIS-Drug laboratories as anabolic steroids (Table 2.3), representing less than 1% of all drug reports. The most frequently identified anabolic steroid was testosterone (46%), followed by trenbolone (11%), nandrolone (7%), methandrostenolone (7%), and stanozolol (5%). Testosterone accounted for 54% of anabolic steroids reported in the South, 46% in the Midwest, and 36% in the Northeast (Figure 2.3). The South reported the highest percentages of trenbolone and nandrolone (12% and 8%, respectively), and the Northeast and West reported the highest percentages of methandrostenolone (8% each).

[vii] U.S. Department of Justice. (2020, April 14). *Drugs of abuse: A DEA resource guide, 2020 edition.* Retrieved from https://www.dea.gov/sites/default/files/2020-04/Drugs%20of%20Abuse%202020-Web%20Version-508%20compliant-4-24-20_0.pdf

Table 2.3 *Anabolic Steroids*
Number and percentage of anabolic steroid reports in the United States, 2020[1]

Anabolic Steroid Reports	Number	Percent
Testosterone	990	46.47%
Trenbolone	228	10.70%
Nandrolone	149	6.97%
Methandrostenolone	146	6.86%
Stanozolol	116	5.44%
Oxandrolone	89	4.19%
Boldenone	78	3.68%
Oxymetholone	75	3.54%
Drostanolone	55	2.59%
Mesterolone	38	1.76%
Methenolone	23	1.06%
Dehydrochloromethyltestosterone	18	0.84%
Methasterone	16	0.75%
Fluoxymesterone	8	0.38%
Mestanolone	8	0.38%
Other steroids	94	4.40%
Total Anabolic Steroid Reports[2]	2,130	100.00%
Total Drug Reports	1,283,971	

Figure 2.3 Distribution of anabolic steroid reports within region, 2020[1]



[1] *Includes drug reports submitted to laboratories from January 1, 2020, through December 31, 2020, that were analyzed by March 31, 2021. For most drugs, the 2020 estimates show a noticeable decrease likely due to the impacts of the COVID-19 pandemic. Use caution when comparing data from 2020 with data from previous years.*

[2] *Numbers and percentages may not sum to totals because of rounding.*

2.4 PHENETHYLAMINES

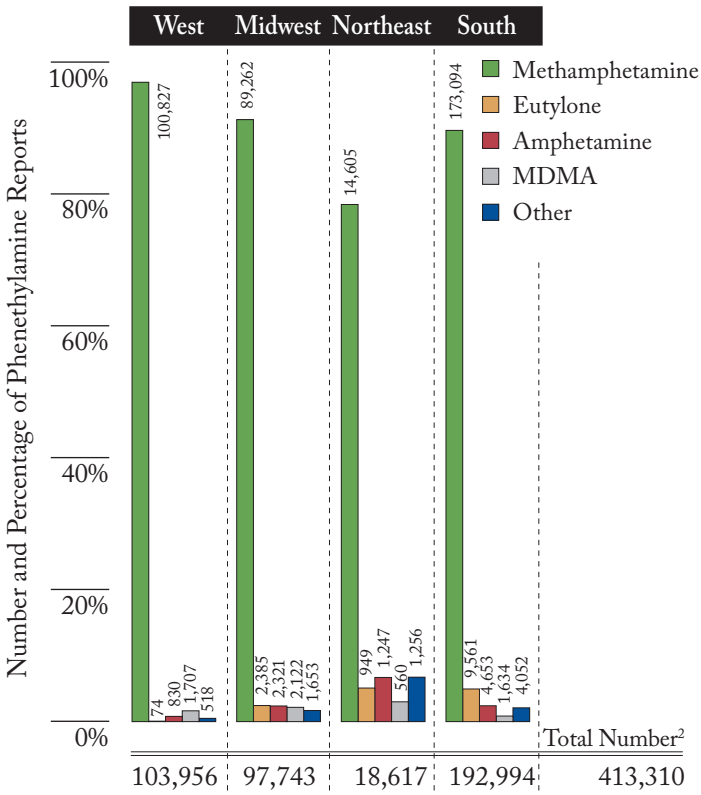
Commonly known as "N-bomb" and "smiles," phenethylamines are synthetic drugs taken for their stimulant and hallucinogenic effects that increase alertness, attention, and energy. Side effects associated with the abuse of phenethylamines include tachycardia, hypertension, hyperthermia, seizures, sweating, headache, paranoia, hallucinations, delusions, and even death.[viii]

NFLIS-Drug laboratories identified 413,310 phenethylamine reports in 2020, representing 32% of all drug reports (Table 2.4). Of these, 91% were identified as methamphetamine. Among the other phenethylamine reports, 3% were identified as eutylone and 2% as amphetamine. Methamphetamine accounted for 97% of phenethylamine reports in the West, 91% in the Midwest, 90% in the South, and 78% in the Northeast (Figure 2.4). The Northeast and South reported the highest percentages of eutylone (5% each), while the Northeast reported the highest percentages of amphetamine (7%) and MDMA (3%).

Table 2.4 ***PHENETHYLAMINES***
Number and percentage of phenethylamine reports in the United States, 2020[1]

Phenethylamine Reports	Number	Percent
Methamphetamine	377,787	91.41%
Eutylone	12,969	3.14%
Amphetamine	9,051	2.19%
MDMA	6,023	1.46%
Lisdexamfetamine	814	0.20%
Benzphetamine	740	0.18%
MDA	696	0.17%
BMDP	649	0.16%
Phentermine	330	0.08%
alpha-PiHP	322	0.08%
N-Ethylpentylone	316	0.08%
3,4-Methylenedioxy PV8	215	0.05%
alpha-PHP	179	0.04%
Butylpentylone	127	0.03%
N-Butylpentylone	115	0.03%
Other phenethylamines	2,975	0.72%
Total Phenethylamine Reports[2]	413,310	100.00%
Total Drug Reports	1,283,971	

Figure 2.4 Distribution of phenethylamine reports within region, 2020[1]



[viii] U.S. Department of Justice, Drug Enforcement Administration. (2018, July). *About synthetic drugs.* Retrieved from https://www.deadiversion.usdoj.gov/synthetic_drugs/about_sd.html

[1] *Includes drug reports submitted to laboratories from January 1, 2020, through December 31, 2020, that were analyzed by March 31, 2021. For most drugs, the 2020 estimates show a noticeable decrease likely due to the impacts of the COVID-19 pandemic. Use caution when comparing data from 2020 with data from previous years.*

[2] *Numbers and percentages may not sum to totals because of rounding.*

2.5 Synthetic Cannabinoids

Synthetic cannabinoids are human-made compounds often sprayed on dried plant material or sold as liquids to be smoked or vaporized.[ix] Despite being marketed as a safe alternative to cannabis and labeled as "synthetic marijuana," they are not safe for human consumption, and their side effects can often be unpredictable and can include agitation, anxiety, nausea, vomiting, tachycardia, high blood pressure, seizures, hallucinations, suicidal thoughts, and death.[x]

A total of 14,978 synthetic cannabinoid reports were identified during 2020, accounting for about 1% of all drugs reported (Table 2.5). The most identified synthetic cannabinoid was MDMB-4en-PINACA (30%), followed by 5F-MDMB-PICA (19%), fluoro-MDMB-PICA (10%), and 4F-MDMB-BUTINACA (7%). Specifically, MDMB-4en-PINACA accounted for 42% of synthetic cannabinoid reports in the Midwest, 28% in the South, and 27% in the Northeast (Figure 2.5). The South and Northeast reported the highest percentages of fluoro-MDMB-PICA (11% and 10%, respectively), whereas the West reported the highest percentage of 5F-MDMB-PICA (44%), and the West and Midwest reported the highest percentages of 4F-MDMB-BUTINACA (12% and 11%, respectively).

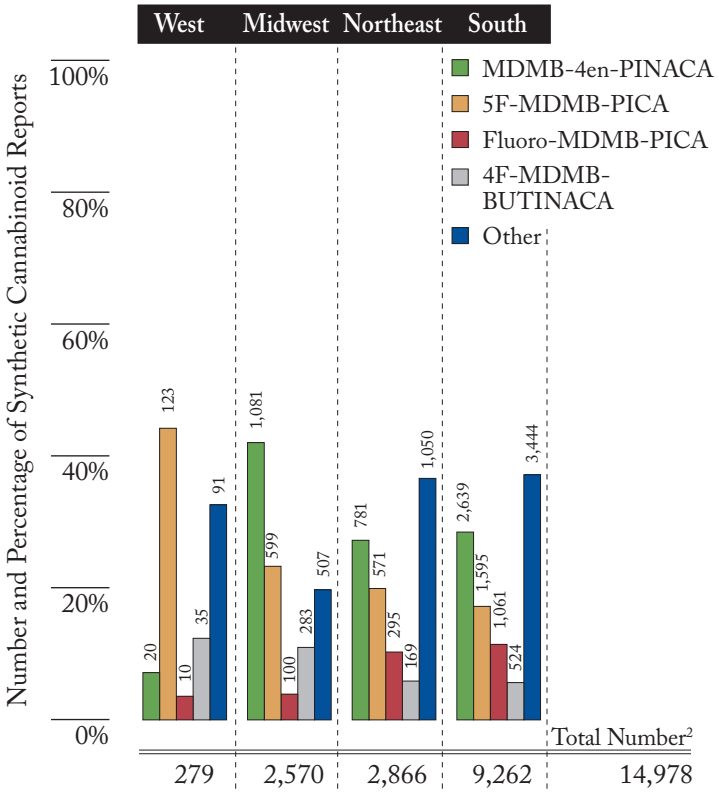
[ix] National Institute on Drug Abuse (NIDA). (2018, March). DrugFacts: *Synthetic cannabinoids (K2/Spice).* Retrieved from https://www.drugabuse.gov/publications/drugfacts/synthetic-cannabinoids-k2spice

[x] *The dangers of synthetic cannabinoids and stimulants: Hearings before the Senate Caucus on International Narcotics Control,* 112th Cong. (2011) (testimony of Joseph T. Rannazzisi). Retrieved from https://www.dea.gov/sites/default/files/pr/speeches-testimony/2012-2009/110412_testimony.pdf

Table 2.5 *Synthetic Cannabinoids*
Number and percentage of synthetic cannabinoid reports in the United States, 2020[1]

Synthetic Cannabinoid Reports	Number	Percent
MDMB-4en-PINACA	4,521	30.19%
5F-MDMB-PICA	2,888	19.28%
Fluoro-MDMB-PICA	1,466	9.79%
4F-MDMB-BUTINACA	1,010	6.74%
Fluoro-MDMB-BUTINACA	283	1.89%
Fluoro-EMB-PICA	263	1.76%
5F-ADB	218	1.46%
ADB-BUTINACA	210	1.40%
4F-MDMB-BUTICA	210	1.40%
5F-EMB-PICA	195	1.30%
5F-EDMB-PINACA	121	0.81%
Fluoro-MDMB-BUTICA	118	0.79%
FUB-AMB	116	0.77%
FUB-144	107	0.72%
5F-CUMYL-PINACA	74	0.50%
Other synthetic cannabinoids	3,176	21.20%
Total Synthetic Cannabinoid Reports[2]	14,978	100.00%
Total Drug Reports	1,283,971	

Figure 2.5 Distribution of synthetic cannabinoid reports within region, 2020[1]



[1] *Includes drug reports submitted to laboratories from January 1, 2020, through December 31, 2020, that were analyzed by March 31, 2021. For most drugs, the 2020 estimates show a noticeable decrease likely due to the impacts of the COVID-19 pandemic. Use caution when comparing data from 2020 with data from previous years.*

[2] *Numbers and percentages may not sum to totals because of rounding.*

Section 3

GIS ANALYSIS: FLUALPRAZOLAM AND MDMB-4EN-PINACA COMPARISONS, BY LOCATION, 2019 AND 2020

One of the unique features of NFLIS-Drug is the ability to analyze and monitor, by the county of origin, variation in drugs reported by laboratories. By using geographic information system (GIS) analyses, NFLIS-Drug can provide information on drug seizure locations.

This section presents data at the State and county levels for the percentage of drug reports identified as flualprazolam and MDMB-4en-PINACA at two time points—2019 and 2020. In 2019, neither drug appeared in the NFLIS-Drug list of the top 25 most frequently identified drugs. By 2020, flualprazolam was the 19th most frequently reported drug and the 4th most frequently reported tranquilizer and depressant, while MDMB-4en-PINACA was the 21st most frequently reported drug and the most frequently reported synthetic cannabinoid.

The GIS data presented here are based on information provided to NFLIS-Drug forensic laboratories by the submitting law enforcement agencies (Figures 3.1 to 3.8). The information submitted by law enforcement includes the ZIP Code or county of origin associated with the drug seizure incident or the name of the submitting law enforcement agency. When a ZIP Code or county of origin is unavailable, the drug seizure or incident is assigned to the same county as the submitting law enforcement agency. If the submitting agency is unknown, the seizure or incident is assigned to the county in which the laboratory completing the analyses is located.

It is important to note that these data may not include all drug items seized at the State and county levels. Instead, these data represent only those drugs that were submitted to and analyzed by NFLIS-Drug forensic laboratories. In addition, some laboratories in several States are not currently reporting data to NFLIS-Drug, and their absence may affect the relative distribution of drugs seized and analyzed. Nevertheless, these data can serve as an important source for identifying abuse and trafficking trends and patterns across and within States.

Figure 3.1 Percentage of total drug reports identified as flualprazolam, by State, 2019[1]

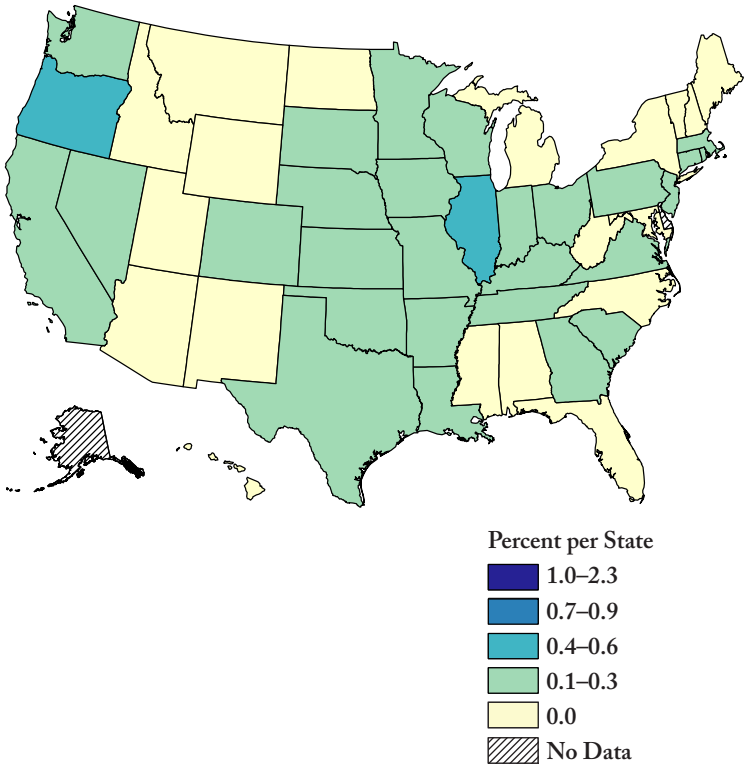


Figure 3.2 Percentage of total drug reports identified as flualprazolam, by State, 2020[1]

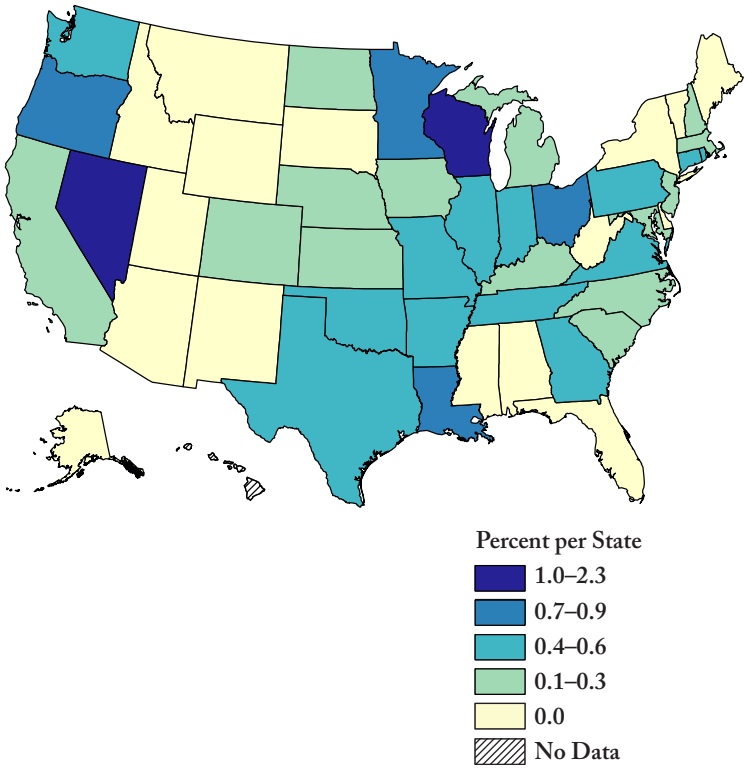


Figure 3.3 Percentage of total drug reports identified as MDMB-4en-PINACA, by State, 2019[1]

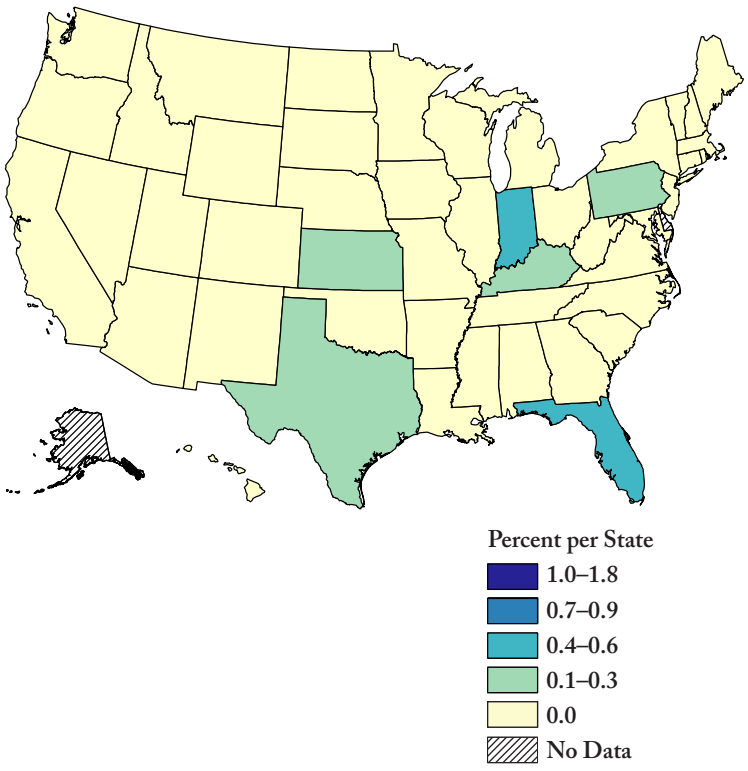
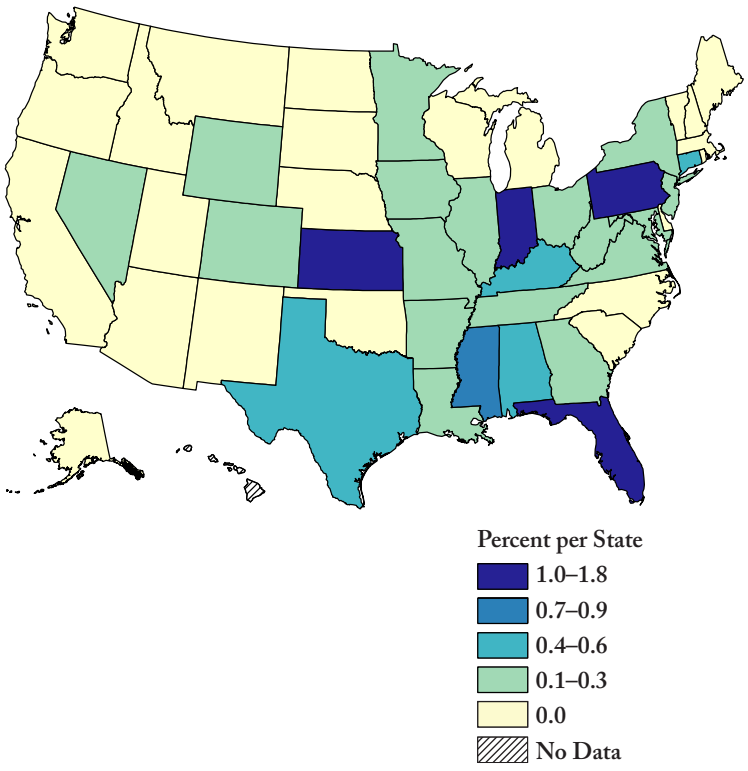


Figure 3.4 Percentage of total drug reports identified as MDMB-4en-PINACA, by State, 2020[1]



[1] *Includes drugs submitted to State and local laboratories during the calendar year that were analyzed within three months of the reporting period.*

Figure 3.5 Percentage of total drug reports identified as flualprazolam in Louisiana, by parish, 2019[1]

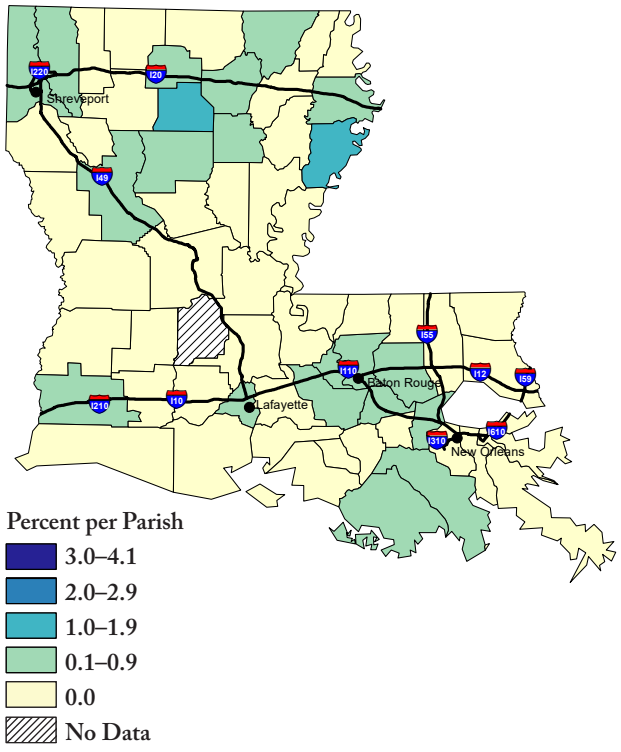


Figure 3.6 Percentage of total drug reports identified as flualprazolam in Louisiana, by parish, 2020[1]

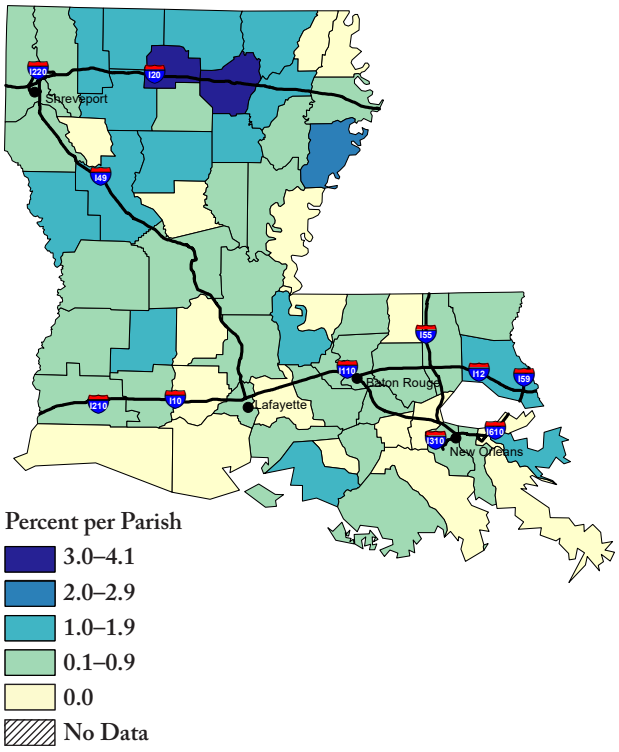


Figure 3.7 Percentage of total drug reports identified as MDMB-4en-PINACA in Kansas, by county, 2019[1]

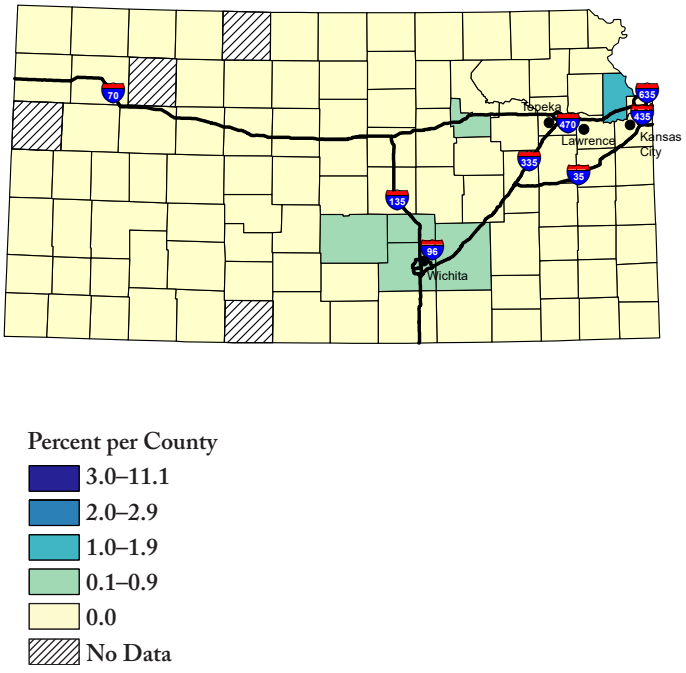
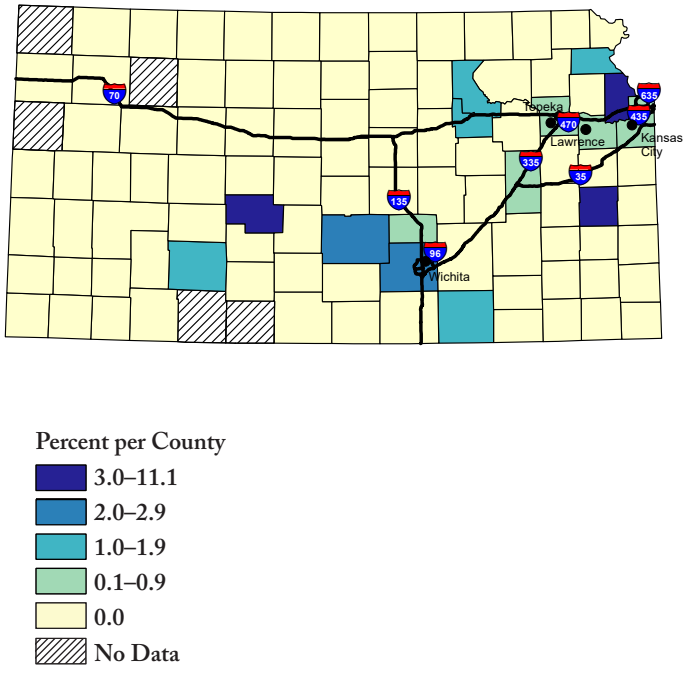


Figure 3.8 Percentage of total drug reports identified as MDMB-4en-PINACA in Kansas, by county, 2020[1]



[1] *Includes drugs submitted to State and local laboratories during the calendar year that were analyzed within three months of the reporting period.*

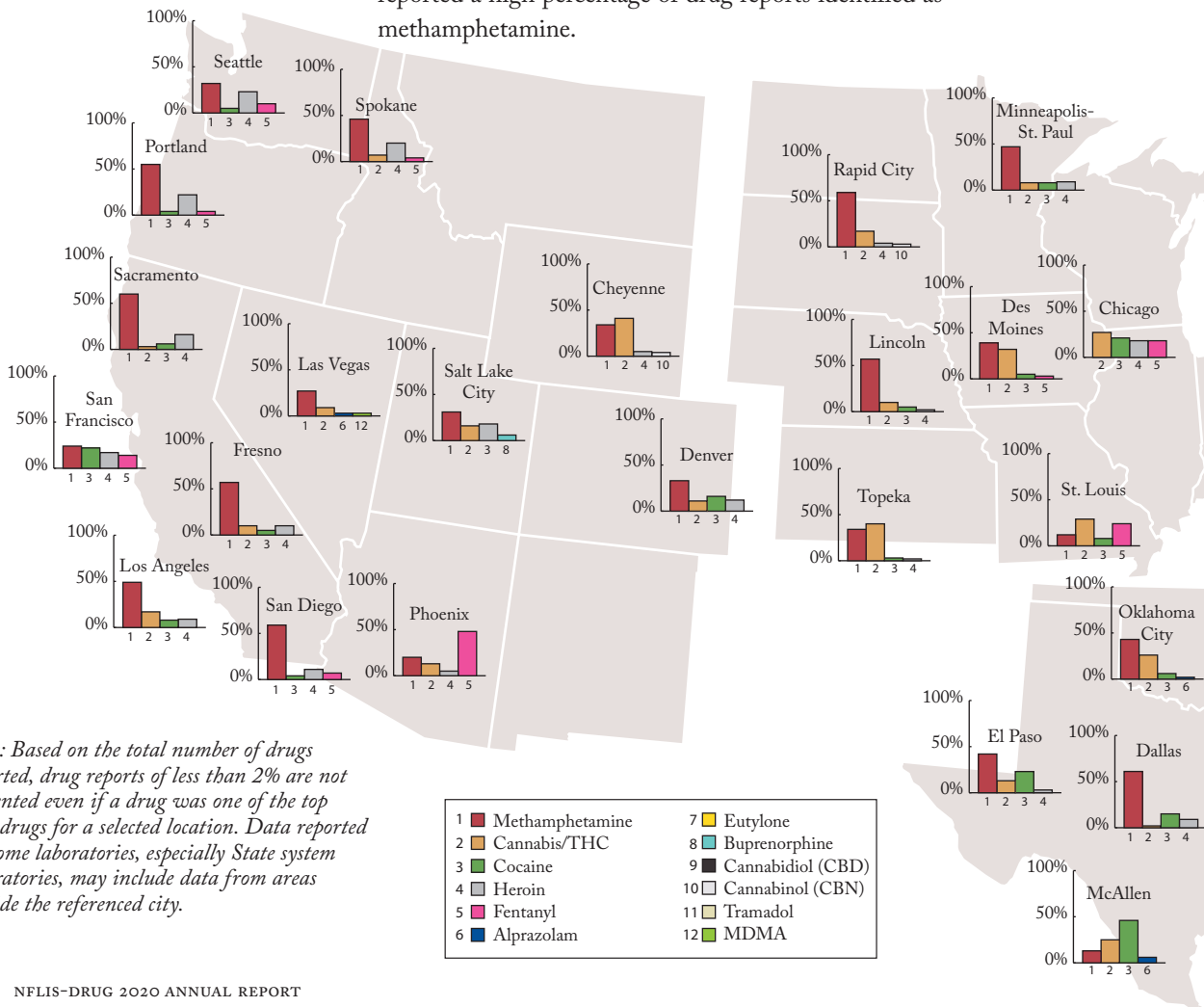
Section 4

DRUGS IDENTIFIED BY LABORATORIES IN SELECTED U.S. CITIES

NFLIS-Drug can be used to monitor drugs reported by forensic laboratories across the country, including laboratories in large U.S. cities. This section presents drug analysis results of all drugs submitted to State and local laboratories during 2020 and analyzed by March 31, 2021.

This section presents data for the four most common drugs reported by NFLIS-Drug laboratories in selected cities. The laboratories representing selected cities are presented in the summary table on the next page. The following results highlight geographic differences in the types of drugs abused and trafficked, such as the higher levels of methamphetamine reporting on the West Coast and cocaine reporting on the East Coast.

Nationally, 29% of all drugs in NFLIS-Drug were identified as methamphetamine (Table 1.1). The highest percentages of methamphetamine were reported by laboratories representing cities in the West and Midwest, including Sacramento (60%), San Diego (59%), Rapid City (59%), Lincoln (57%), Fresno (57%), Portland (55%), Los Angeles (49%), Minneapolis-St. Paul (47%), and Spokane (46%). Cities in the South, such as Dallas (61%), Houston (52%), Atlanta (46%), Oklahoma City (43%), Raleigh (43%), El Paso (42%), and Jackson (40%), also reported a high percentage of drug reports identified as methamphetamine.

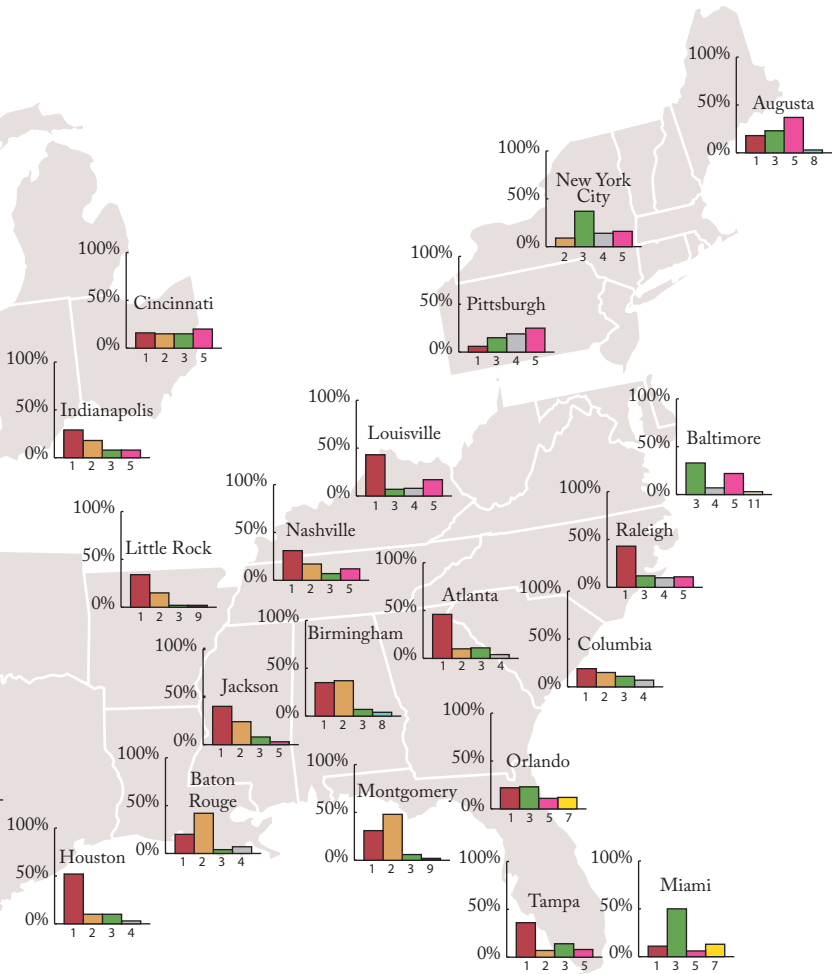


Note: Based on the total number of drugs reported, drug reports of less than 2% are not presented even if a drug was one of the top four drugs for a selected location. Data reported for some laboratories, especially State system laboratories, may include data from areas outside the referenced city.

Overall, the highest percentages of cocaine were reported by laboratories representing cities in the Northeast and South, such as Miami (50%), McAllen (46%), New York City (37%), Baltimore (33%), Orlando (23%), El Paso (23%), Augusta (23%), Pittsburgh (15%), and Dallas (15%). Cities in the West, such as San Francisco (22%) and Denver (16%), and in the Midwest, such as Chicago (21%) and Cincinnati (15%), also reported high percentages of cocaine. Nationally, 12% of drugs in NFLIS-Drug were identified as cocaine.

The highest percentages of heroin were reported by laboratories representing the Western cities of Seattle (23%), Portland (22%), Spokane (20%), Salt Lake City (18%), San Francisco (17%), Sacramento (16%), Denver (12%), and San Diego (11%); the Northeastern cities of Pittsburgh (19%) and New York City (14%); the Midwestern city of Chicago (18%); and the Southern city of Raleigh (10%). Nationally, 8% of all drugs in NFLIS-Drug were identified as heroin.

As for controlled prescription drugs, Phoenix (48%), Augusta (37%), Pittsburgh (25%), St. Louis (24%), Baltimore (22%), and Cincinnati (20%) reported the highest percentages of fentanyl. Nationally, 9% of drugs in NFLIS-Drug were identified as fentanyl. McAllen (6%) reported the highest percentage of alprazolam. Nationally, 2% of drugs in NFLIS-Drug were identified as alprazolam. Salt Lake City (6%) and Birmingham (4%) reported the highest percentages of buprenorphine, whereas Baltimore (3%) reported the highest percentage of tramadol. Nationally, 1% of drugs in NFLIS-Drug were identified as buprenorphine, whereas less than 1% were identified as tramadol. As for other drugs, Miami (13%) and Orlando (12%) reported the highest percentage of eutylone; Cheyenne reported the highest percentage of cannabinol (CBN) (4%); and Montgomery, Little Rock, and Birmingham reported the highest percentages of cannabidiol (CBD) (2% each). Las Vegas reported the highest percentage of MDMA (3%). Nationally, less than 1% of drugs were identified as CBN, CBD, or MDMA.



Selected Laboratories
Atlanta (Georgia State Bureau of Investigation—Decatur Laboratory)
Augusta (Maine Department of Health and Human Services)
Baltimore (Baltimore City Police Department)
Baton Rouge (Louisiana State Police)
Birmingham (Alabama Department of Forensic Sciences—Birmingham Laboratory)
Cheyenne (Wyoming State Crime Laboratory)
Chicago (Illinois State Police—Chicago Laboratory)
Cincinnati (Hamilton County Coroner's Office)
Columbia (South Carolina Law Enforcement Division—Columbia Laboratory)
Dallas (Texas Department of Public Safety—Garland Laboratory)
Denver (Denver Police Department Crime Laboratory)
Des Moines (Iowa Division of Criminal Investigations)
El Paso (Texas Department of Public Safety—El Paso Laboratory)
Fresno (California Department of Justice—Fresno Laboratory and Fresno County Sheriff's Forensic Laboratory)
Houston (Texas Department of Public Safety—Houston Laboratory and Harris County Institute of Forensic Sciences Crime Laboratory)
Indianapolis (Indianapolis-Marion County Forensic Laboratory)
Jackson (Mississippi Department of Public Safety—Jackson Laboratory and Jackson Police Department Crime Laboratory)
Las Vegas (Las Vegas Metropolitan Police Crime Laboratory)
Lincoln (Nebraska State Patrol Criminalistics Laboratory—Lincoln Laboratory)
Little Rock (Arkansas State Crime Laboratory)
Los Angeles (Los Angeles Police Department and Los Angeles County Sheriff's Department)
Louisville (Kentucky State Police—Louisville Laboratory)
McAllen (Texas Department of Public Safety—McAllen Laboratory)
Miami (Miami-Dade Police Department Crime Laboratory)
Minneapolis-St. Paul (Minnesota Bureau of Criminal Apprehension—Minneapolis Laboratory)
Montgomery (Alabama Department of Forensic Sciences—Montgomery Laboratory)
Nashville (Tennessee Bureau of Investigation—Nashville Laboratory)
New York City (New York City Police Department Crime Laboratory)
Oklahoma City (Oklahoma State Bureau of Investigation—Oklahoma City Laboratory)
Orlando (Florida Department of Law Enforcement—Orlando Laboratory)
Phoenix (Phoenix Police Department)
Pittsburgh (Allegheny Office of the Medical Examiner Forensic Laboratory)
Portland (Oregon State Police Forensic Services Division—Portland Laboratory)
Rapid City (Rapid City Police Department)
Raleigh (North Carolina State Bureau of Investigation—Raleigh Laboratory)
Sacramento (Sacramento County District Attorney's Office)
Salt Lake City (Utah Department of Public Safety—Salt Lake City State Crime Laboratory)
San Diego (San Diego Police Department)
San Francisco (San Francisco Police Department)
Seattle (Washington State Patrol—Seattle Laboratory)
Spokane (Washington State Patrol—Spokane Laboratory)
St. Louis (St. Louis Police Department)
Tampa (Florida Department of Law Enforcement—Tampa Laboratory)
Topeka (Kansas Bureau of Investigation—Topeka Laboratory)

Appendix A LONG-TERM TREND GRAPHS

Figure A.1 National trend estimates for fentanyl, alprazolam, and buprenorphine, January 2001–December 2020[1]

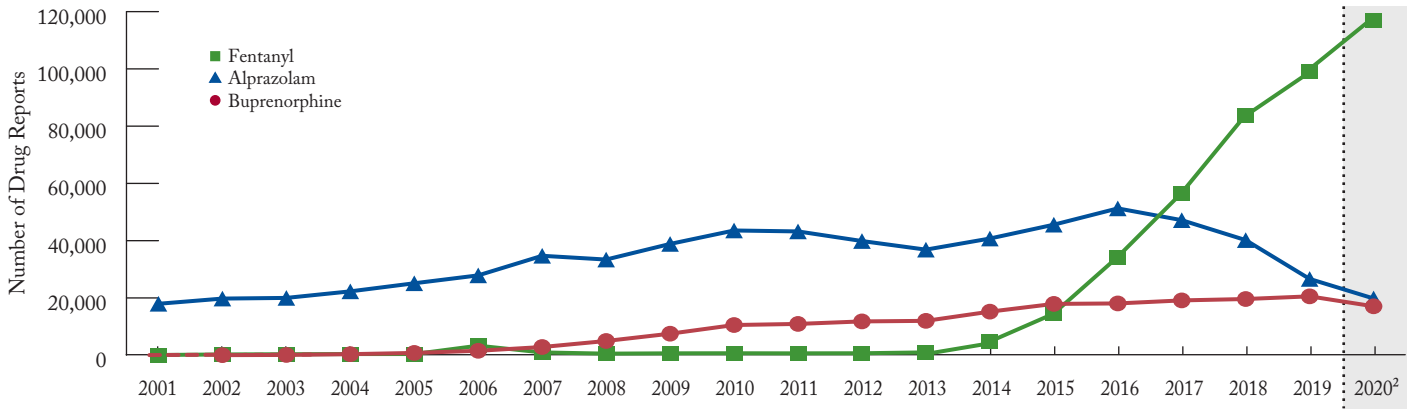


Figure A.2 National trend estimates for oxycodone, tramadol, and amphetamine, January 2001–December 2020

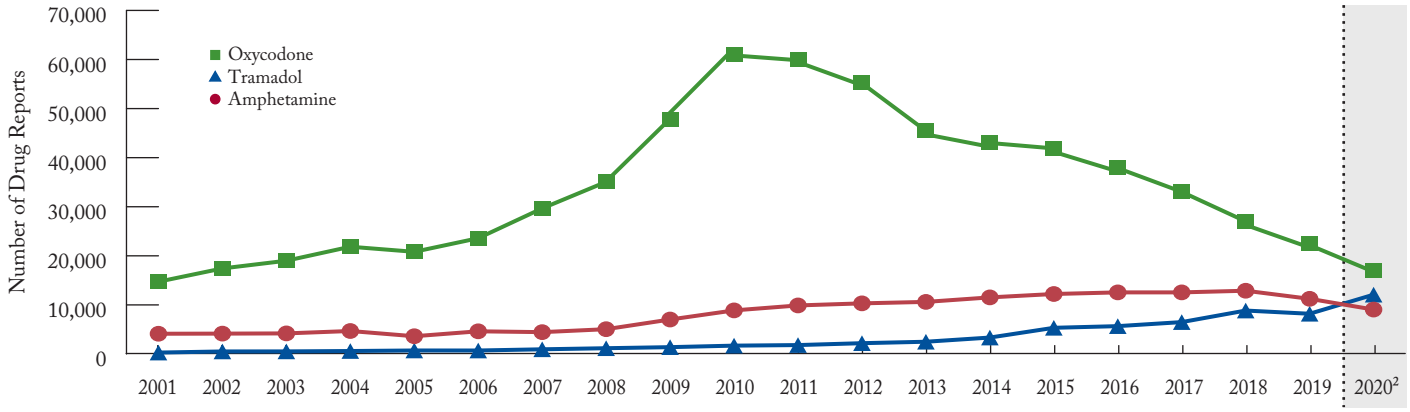
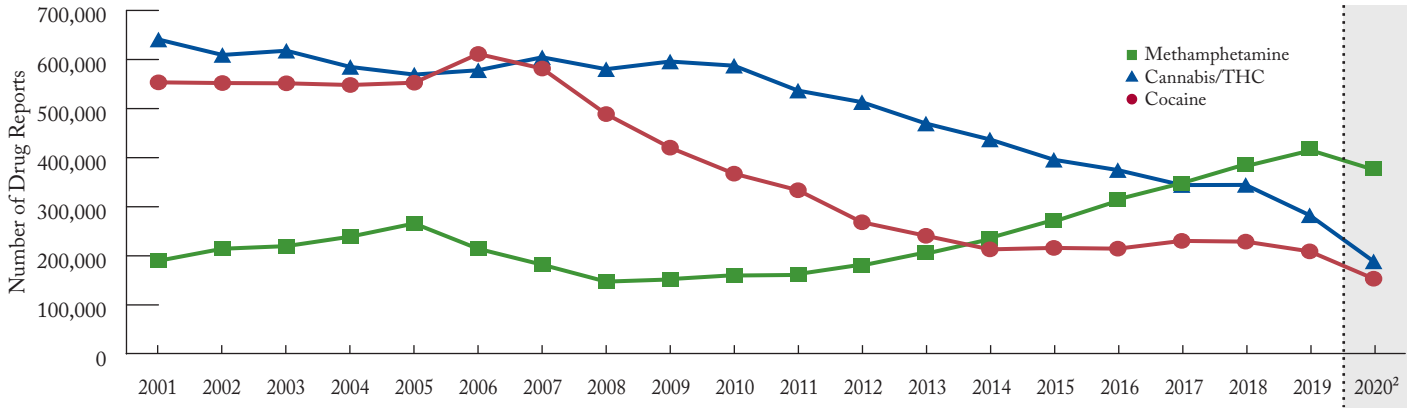


Figure A.3 National trend estimates for methamphetamine, cannabis/THC, and cocaine, January 2001–December 2020



[1] *A dashed trend line indicates that estimates did not meet the criteria for precision or reliability. See the current NFLIS Statistical Methodology publication for a more detailed description of the methods used in preparing these estimates.*

[2] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Figure A.4 National trend estimates for heroin, eutylone, and MDMA, January 2001–December 2020[1]

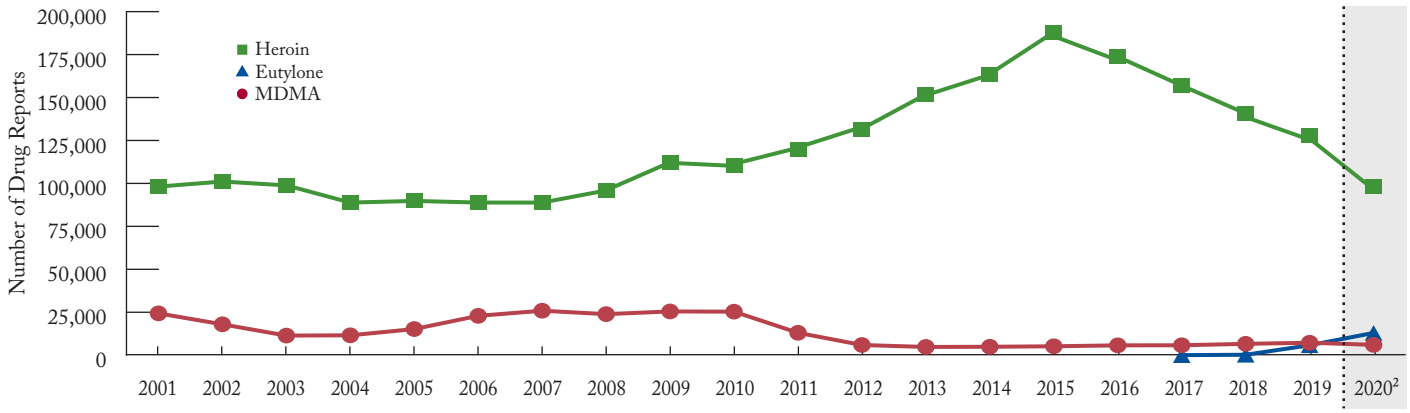


Figure A.5 Regional trends in fentanyl reported per 100,000 persons aged 15 or older, January 2001–December 2020[3]

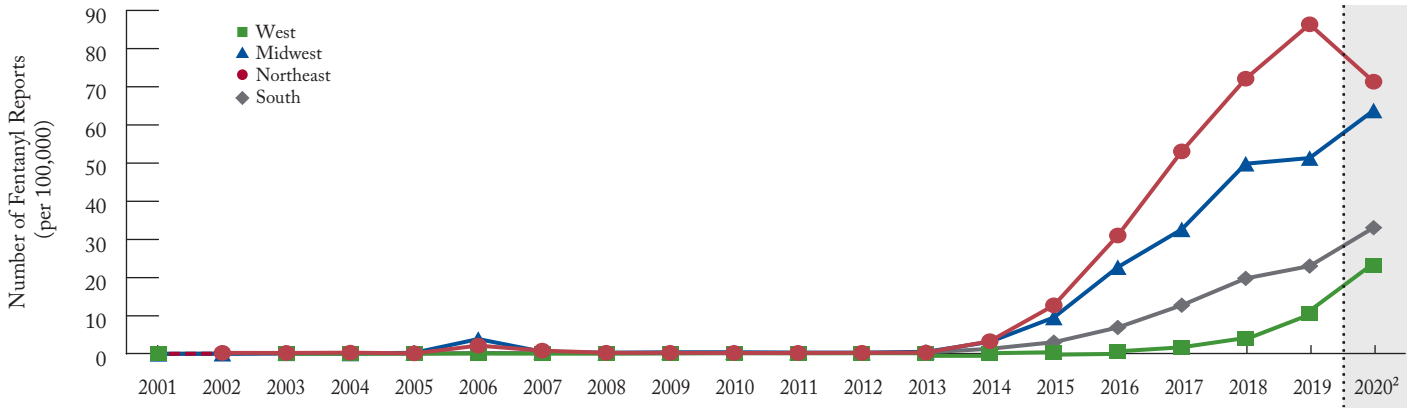
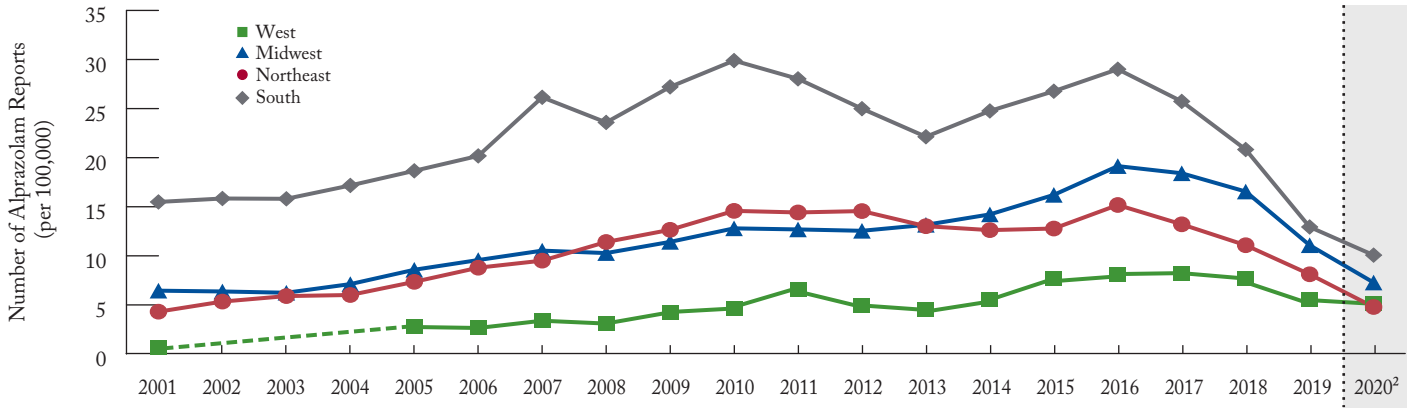


Figure A.6 Regional trends in alprazolam reported per 100,000 persons aged 15 or older, January 2001–December 2020[3]



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] Estimates are not available for eutylone for 2001 through 2016 because eutylone was first reported to NFLIS-Drug in 2017.

[2] There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.

[3] A dashed trend line indicates that estimates did not meet the criteria for precision or reliability. See the current NFLIS Statistical Methodology publication for a more detailed description of the methods used in preparing these estimates.

Figure A.7 Regional trends in buprenorphine reported per 100,000 persons aged 15 or older, January 2001–December 2020[1]

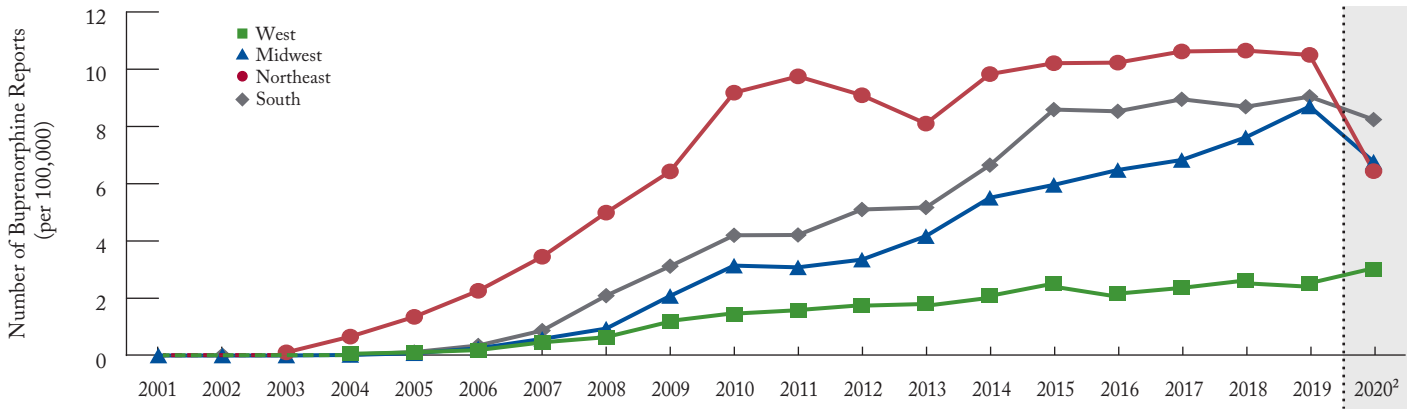


Figure A.8 Regional trends in oxycodone reported per 100,000 persons aged 15 or older, January 2001–December 2020

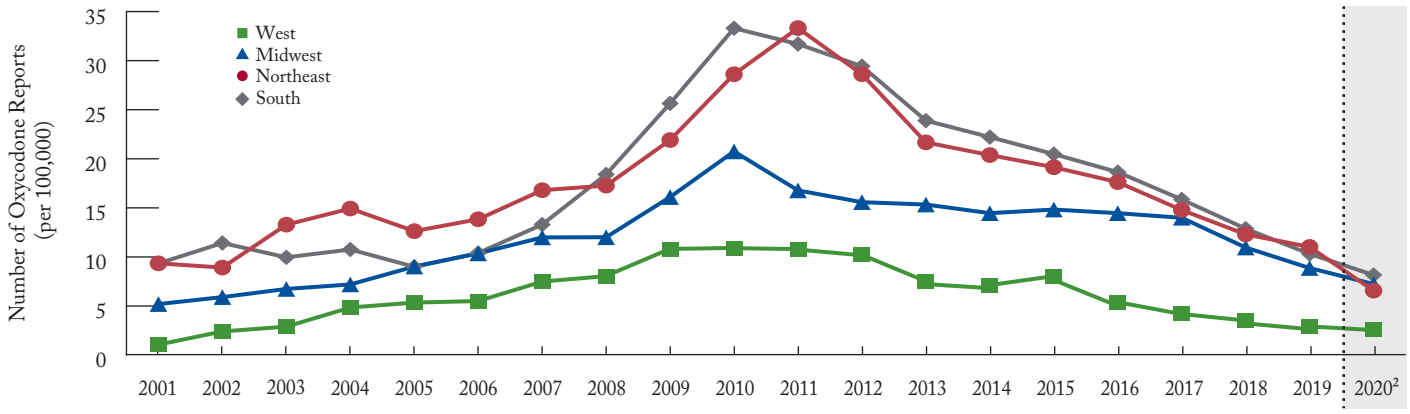
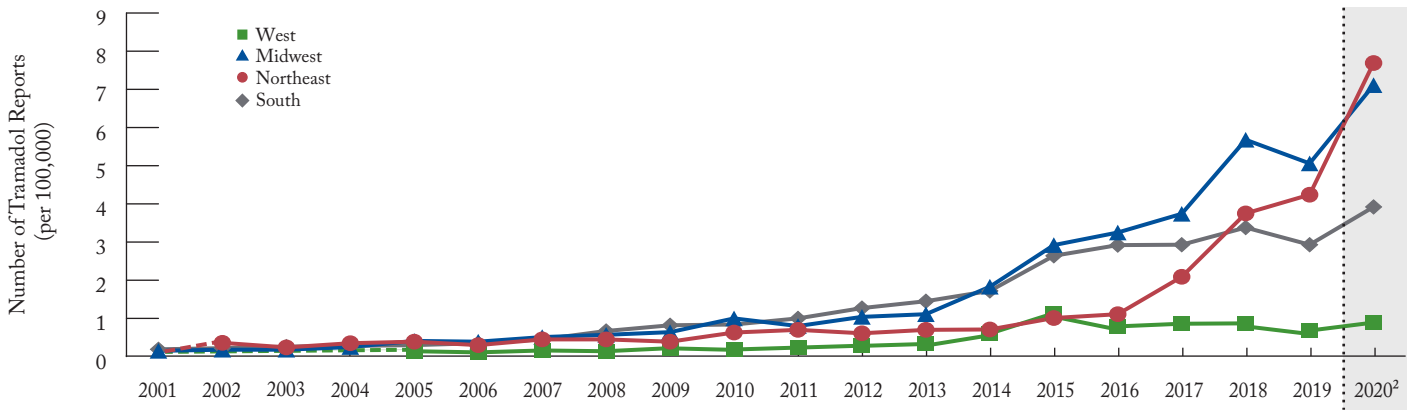


Figure A.9 Regional trends in tramadol reported per 100,000 persons aged 15 or older, January 2001–December 2020[1]



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *A dashed trend line indicates that estimates did not meet the criteria for precision or reliability. See the current NFLIS Statistical Methodology publication for a more detailed description of the methods used in preparing these estimates.*

[2] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Figure A.10 Regional trends in amphetamine reported per 100,000 persons aged 15 or older, January 2001–December 2020

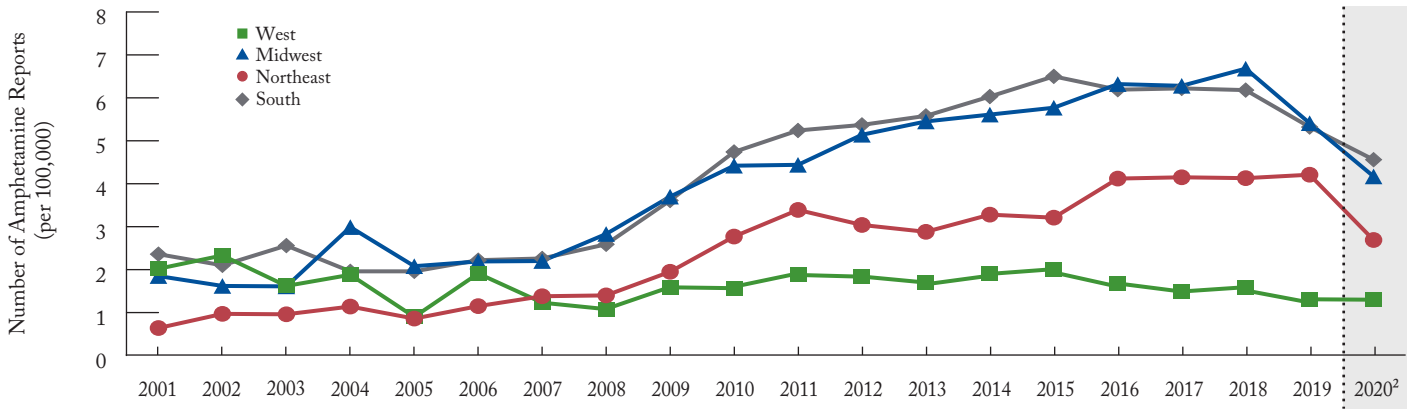


Figure A.11 Regional trends in methamphetamine reported per 100,000 persons aged 15 or older, January 2001–December 2020[1]

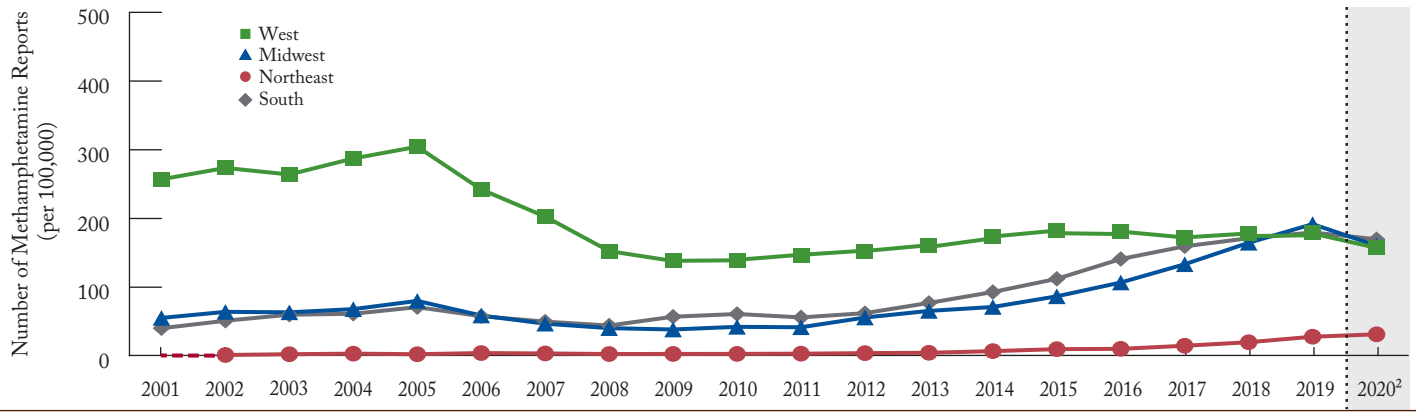
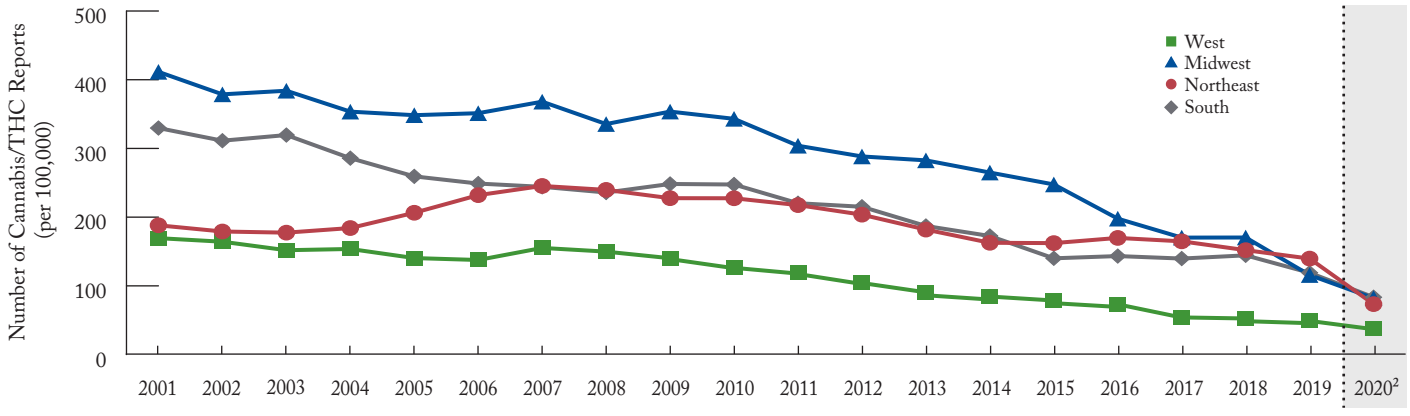


Figure A.12 Regional trends in cannabis/THC reported per 100,000 persons aged 15 or older, January 2001–December 2020



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *A dashed trend line indicates that estimates did not meet the criteria for precision or reliability. See the current NFLIS Statistical Methodology publication for a more detailed description of the methods used in preparing these estimates.*

[2] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Figure A.13 Regional trends in cocaine reported per 100,000 persons aged 15 or older, January 2001–December 2020

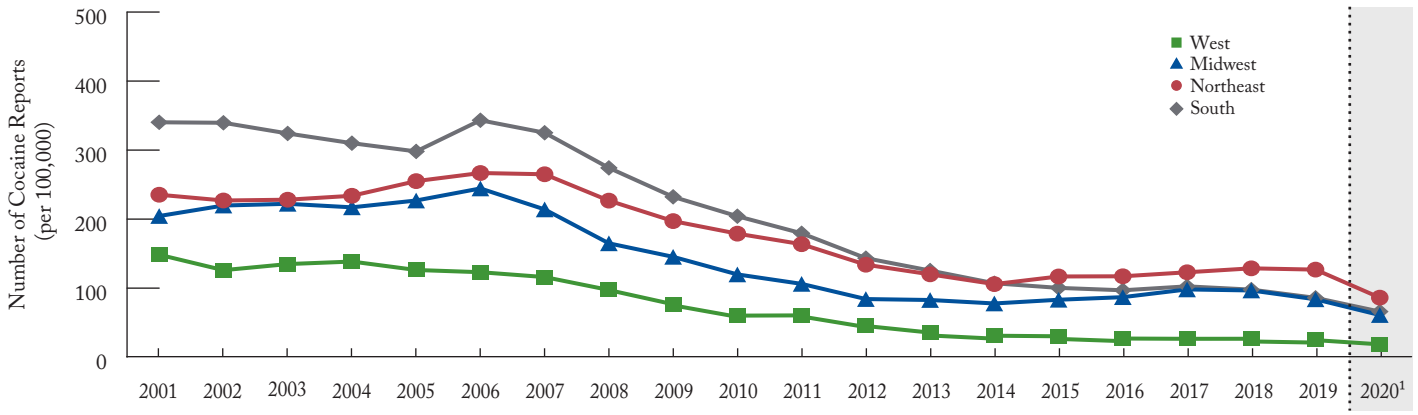


Figure A.14 Regional trends in heroin reported per 100,000 persons aged 15 or older, January 2001–December 2020

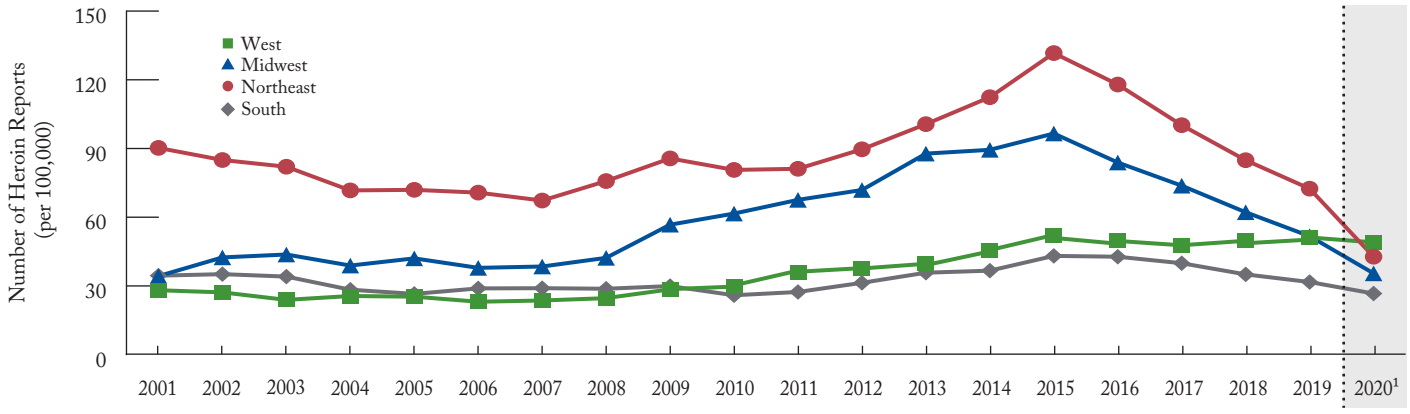
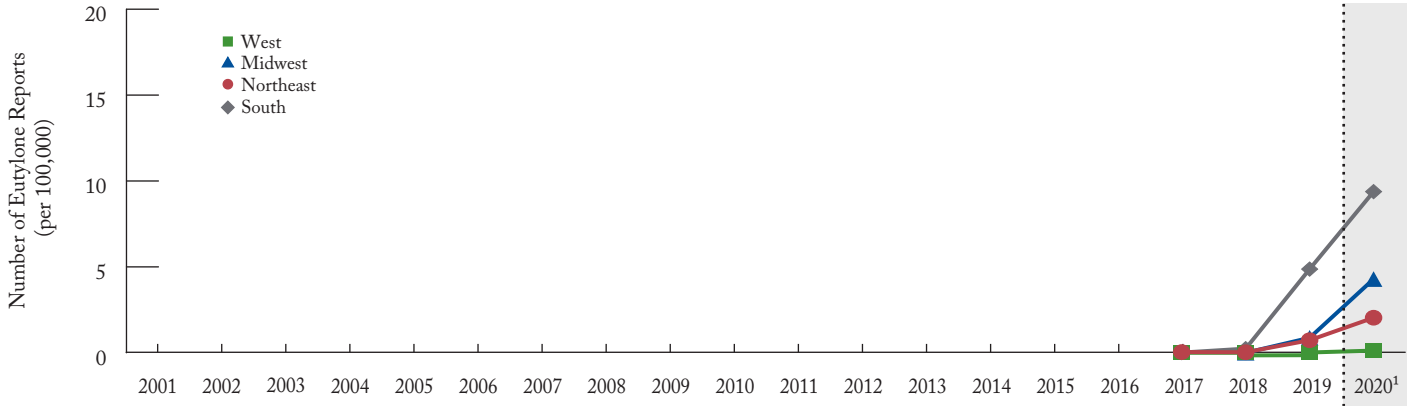


Figure A.15 Regional trends in eutylone reported per 100,000 persons aged 15 or older, January 2001–December 2020[2]

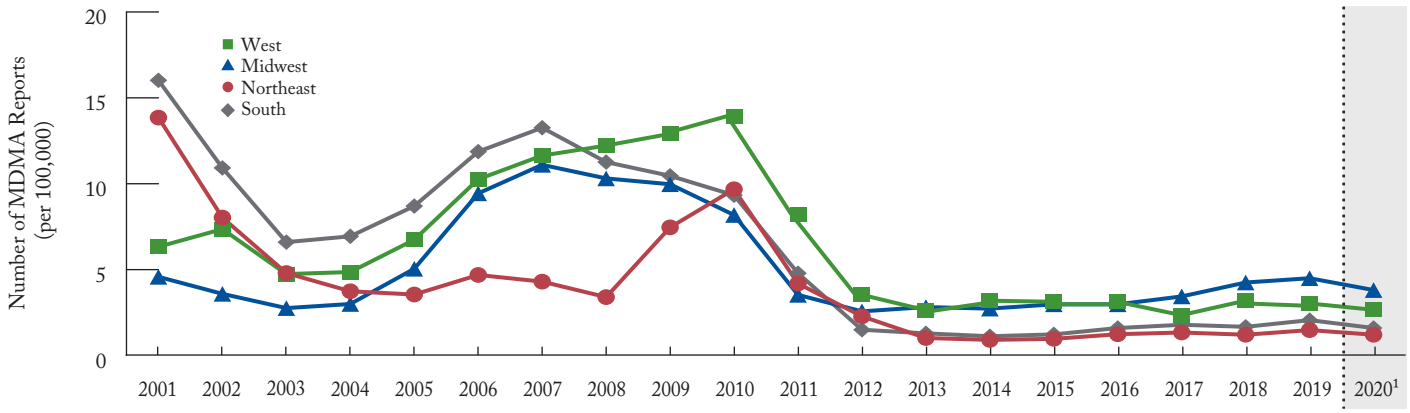


Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

[2] *Estimates are not available for eutylone for 2001 through 2016 because eutylone was first reported to NFLIS-Drug in 2017.*

Figure A.16 Regional trends in MDMA reported per 100,000 persons aged 15 or older, January 2001–December 2020



Note: U.S. Census 2020 population data by age were not available for this publication. Population data for 2020 were imputed.

[1] *There is a noticeable decrease in the number of cases submitted and analyzed during 2020, which is likely due, in part, to the impacts of the COVID-19 pandemic. Use caution when comparing the shaded estimates with previous years' estimates.*

Appendix B

NFLIS-Drug 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 (5 sites)	✓
AR	State	Arkansas State Crime Laboratory (3 sites)	✓
AZ	State	Arizona Department of Public Safety, Scientific Analysis Bureau (4 sites)	✓
	Local	Mesa Police Department	✓
	Local	Phoenix Police Department	✓
	Local	Scottsdale Police Department	✓
	Local	Tucson Police Department Crime Laboratory	✓
CA	State	California Department of Justice (10 sites)	✓
	Local	Alameda County Sheriff's Office Crime Laboratory (San Leandro)	✓
	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	✓
	Local	Oakland Police Department Crime Laboratory	✓
	Local	Orange County Sheriff's Department (Santa Ana)	✓
	Local	Sacramento County District Attorney's Office	✓
	Local	San Bernardino County Sheriff's Department	✓
	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	Solano County District Attorney, Bureau of Forensic Services	✓
	Local	Ventura County Sheriff's Department	✓
CO	State	Colorado Bureau of Investigation (4 sites)	✓
	Local	Colorado Springs Police Department	✓
	Local	Denver Police Department Crime Laboratory	✓
	Local	Jefferson County Sheriff's Office (Golden)	
	Local	Unified Metropolitan Forensic Crime Laboratory (Englewood)	✓
CT	State	Connecticut Department of Public Safety	✓
DE	State	Chief Medical Examiner's Office	
FL	State	Florida Department of Law Enforcement (5 sites)	✓
	Local	Broward County Sheriff's Office (Fort Lauderdale)	✓
	Local	Indian River Crime Laboratory (Fort Pierce)	✓
	Local	Manatee County Sheriff's Office (Bradenton)	✓
	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 (6 sites)	✓
HI	Local	Honolulu Police Department	✓
IA	State	Iowa Division of Criminal Investigations	✓
ID	State	Idaho State Police (3 sites)	✓
	Local	Ada County Sheriff's Office Forensic Lab (Boise)	✓
IL	State	Illinois State Police (6 sites)	✓
	Local	DuPage County Forensic Science Center (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 Criminalistics Laboratory (Lake Charles)	✓
	Local	St. Tammany Parish Sheriff's Office Crime Laboratory (Slidell)	✓
MA	State	Massachusetts State Police	✓
	Local	University of Massachusetts Medical School (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 Police Department Crime Laboratory (Rockville)	✓
	Local	Prince George's County Police Department (Landover)	
ME	State	Maine Department of Health and Human Services	✓
MI	State	Michigan State Police (8 sites)	✓
	Local	Oakland County Sheriff's Office Forensic Science Laboratory (Pontiac)	✓
MN	State	Minnesota Bureau of Criminal Apprehension (2 sites)	✓
	Local	Midwest Regional Forensic Laboratory (Andover)	
MO	State	Missouri State Highway Patrol (8 sites)	✓
	Local	KCMO Regional Crime Laboratory (Kansas City)	✓
	Local	St. Charles County Police Department Criminalistics Laboratory (O'Fallon)	✓
	Local	St. Louis County Police Department Crime Laboratory (Clayton)	✓
	Local	St. Louis Police Department	✓
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	✓
	Local	Raleigh/Wake City-County Bureau of Identification	✓
ND	State	North Dakota Crime Laboratory Division	✓
NE	State	Nebraska State Patrol Criminalistics Laboratory	✓
NH	State	New Hampshire State Police Forensic Laboratory	✓
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	Ocean County Sheriff's Department (Toms River)	✓
	Local	Union County Prosecutor's Office (Westfield)	✓
NM	State	New Mexico Department of Public Safety (3 sites)	✓
	Local	Albuquerque Police Department	✓
NV	Local	Henderson City Crime Laboratory	✓
	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	Nassau County Office of Medical Examiner (East Meadow)	✓
	Local	New York City Police Department Crime Laboratory**	✓
	Local	Niagara County Sheriff's Office Forensic Laboratory (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 (4 sites)	✓
	State	Ohio State Highway Patrol	✓
	Local	Canton-Stark County Crime Laboratory (Canton)	✓
	Local	Columbus Police Department	✓
	Local	Cuyahoga County Regional Forensic Science Laboratory (Cleveland)	✓
	Local	Hamilton County Coroner's Office (Cincinnati)	✓
	Local	Lake County Regional Forensic Laboratory (Painesville)	✓
	Local	Lorain County Crime Laboratory (Elyria)	✓
	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 (4 sites)	✓
	Local	Oklahoma City Police Department Laboratory Services Division	
	Local	Tulsa Police Department Forensic Laboratory	✓
OR	State	Oregon State Police Forensic Services Division (5 sites)	✓
PA	State	Pennsylvania State Police Crime Laboratory (6 sites)	✓
	Local	Allegheny Office of the Medical Examiner Forensic Laboratory (Pittsburgh)	✓
	Local	Philadelphia Police Department Forensic Science Laboratory	
RI	State	Rhode Island Forensic Sciences Laboratory	✓
SC	State	South Carolina Law Enforcement Division	✓
	Local	Anderson/Oconee Regional Forensics Laboratory	✓
	Local	Charleston Police Department	✓
	Local	Richland County Sheriff's Department Forensic Sciences Laboratory (Columbia)	✓
	Local	Spartanburg Police Department	✓
SD	State	South Dakota Department of Public Health Laboratory	
	Local	Rapid City Police Department	✓
TN	State	Tennessee Bureau of Investigation (3 sites)	✓
	Local	Metro Nashville Police Department (Madison)	
TX	State	Texas Department of Public Safety (13 sites)	✓
	Local	Austin Police Department	✓
	Local	Bexar County Criminal Investigations Laboratory (San Antonio)	✓
	Local	Brazoria County Sheriff's Office Crime Laboratory (Angleton)	✓
	Local	Dallas Institute of Forensic Sciences	✓
	Local	Fort Worth Police Department Criminalistics Laboratory	
	Local	Harris County Institute of Forensic Sciences Crime Laboratory (Houston)	✓
	Local	Houston Forensic Science Center	✓
	Local	Jefferson County Sheriff's Regional Crime Laboratory (Beaumont)	✓
UT	State	Utah Department of Public Safety (3 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)	✓
	Local	Kenosha County Division of Health Services	✓
WV	State	West Virginia State Police	✓
WY	State	Wyoming State Crime Laboratory	✓
PR	Territory	Institute of Forensic Science of Puerto Rico Criminalistics Laboratory (3 sites)	

This list identifies laboratories that are participating in and reporting to NFLIS-Drug as of June 30, 2021.

*This laboratory is not currently conducting drug chemistry analyses. Cases for the agencies it serves are being analyzed via contracts or agreements with other laboratories.

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

Appendix C NFLIS-Drug Benefits and Limitations

Benefits

The systematic collection and analysis of drug identification data aid our understanding of the Nation's illicit drug problem. NFLIS-Drug serves as a resource for supporting drug scheduling policy and drug enforcement initiatives nationally and in specific communities around the country.

Specifically, NFLIS-Drug 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 National Survey on Drug Use and Health (NSDUH) and the Monitoring the Future (MTF) study.

NFLIS-Drug is an opportunity for State and local laboratories to participate in a useful, high-visibility initiative. Participating laboratories regularly receive reports that summarize national and regional data. In addition, the Data Query System (DQS) is a secure website that allows NFLIS-Drug participants—including State and local laboratories, the DEA, and other Federal drug control agencies—to run customized queries on the NFLIS-Drug data.

Limitations

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

- Currently, NFLIS-Drug includes data from Federal, State, and local forensic laboratories. Federal data are shown separately in this publication. Efforts are under way to enroll additional Federal laboratories.
- NFLIS-Drug 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.
- 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, whereas others analyze only selected case 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), whereas others record total weight.

Appendix D

NFLIS Website and NFLIS-Drug Data Query System (DQS)

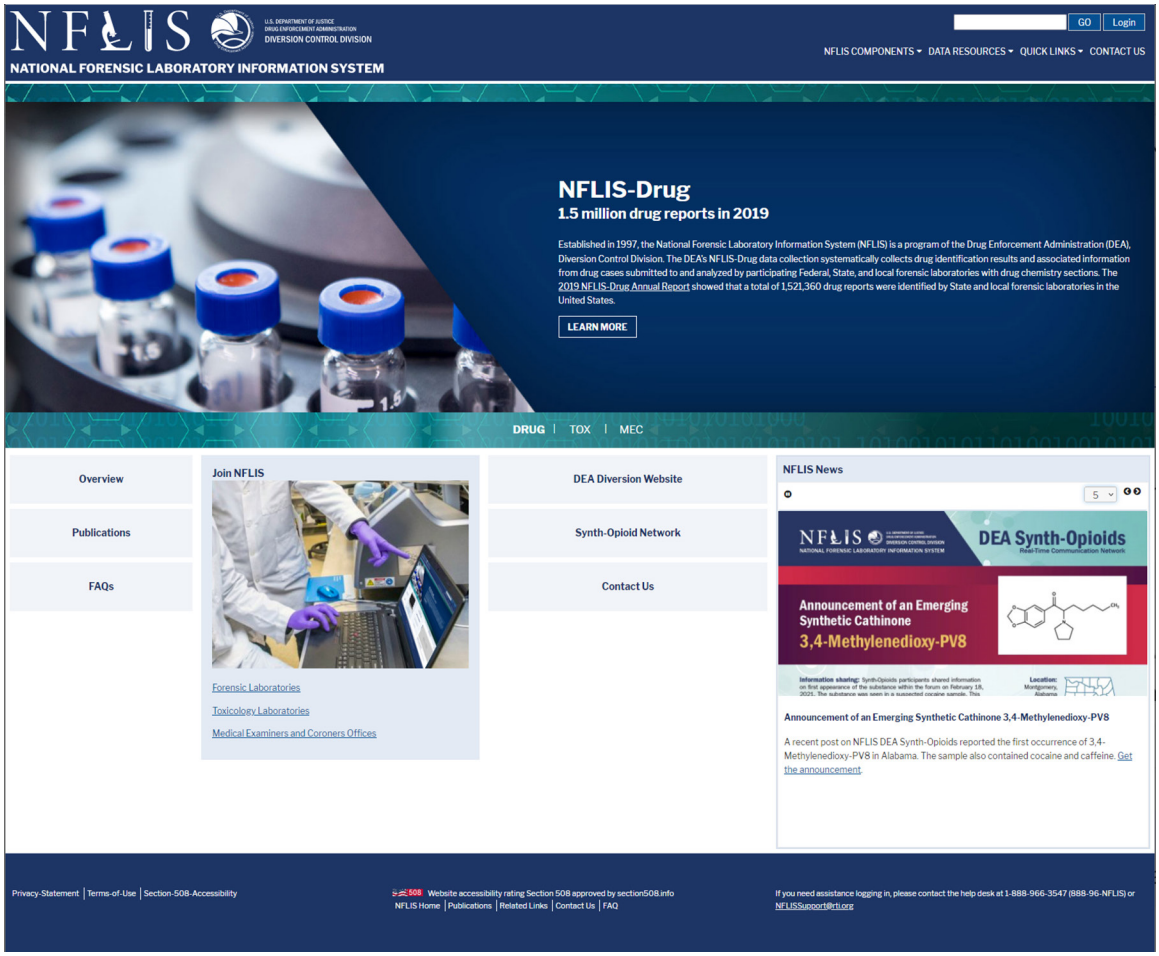
The NFLIS website (https://www.nflis.deadiversion.usdoj.gov) is an important feature of the NFLIS program. It is the key resource providing public access to review information regarding NFLIS data collections and to search for and download NFLIS publications. The website also gives NFLIS-Drug participants access to the NFLIS-Drug Data Query System (DQS). The updated NFLIS website and the DQS were released in May 2021.

The public site is frequently updated with news related to the NFLIS program, including downloadable versions of published NFLIS-Drug reports, NFLIS-Drug data sets, guides for accurate data use and citations, links to other websites, and contact information for key NFLIS-Drug staff. Public features include a link to the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) mass spectral library at http://www.swgdrug.org/.

The private NFLIS site requires user accounts, which are role based to manage access to its features, including the NFLIS-Drug Data Entry Application and the DQS. The DQS is a distinct resource for NFLIS-Drug reporting laboratories to run customizable queries on their own case-level data and on aggregated State, regional, and national data. Features include the ability to quickly run drug category queries, such as for synthetic cannabinoids and synthetic cathinones.

The NFLIS website also includes the NFLIS DEA Synth-Opioids Real-Time Communication Network (Synth-Opioids). This communication platform is a partnership between NFLIS and Synth-Opioids. Synth-Opioids provides rapid dissemination of information on emerging psychoactive substances in the United States and internationally, reports on emerging drug trends and unknown substances, and a searchable database of information. It also allows users to share data, methodologies, and information on novel substances, and it provides the opportunity for scientific forensic surveys to gather information quickly. An account is required to access Synth-Opioids. The NFLIS website provides instructions on how to create an account.

To obtain information about NFLIS-Drug participation or the DQS, please visit the NFLIS website at https://www.nflis.deadiversion.usdoj.gov/.



Public Domain Notice

Suggested citation:

U.S. Drug Enforcement Administration, Diversion Control Division. (2021). *National Forensic Laboratory Information System: NFLIS-Drug 2020 Annual Report*. Springfield, VA: U.S. Drug Enforcement Administration.

Obtaining Copies of This Publication

Electronic copies of this publication can be downloaded from the NFLIS website at **https://www.nflis.deadiversion.usdoj.gov**.

U.S. Drug Enforcement Administration
Diversion Control Division
8701 Morrissette Drive
Springfield, VA 22152

September 2021