

METHAMPHETAMINE

A REGIONAL DRUG CRISIS



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NDEWS | NATIONAL DRUG EARLY WARNING SYSTEM

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Methamphetamine Highlights

- ▶ The use of methamphetamine varies considerably by region of the country.
- ▶ U.S. drug overdose deaths involving methamphetamine more than doubled from 2010 to 2014.
- ▶ Drug overdose deaths and treatment admissions related to methamphetamine are increasing perhaps because methamphetamine is mixed with other drugs.
- ▶ In all five NDEWS Sentinel sites west of the Mississippi, there were more people admitted to treatment for methamphetamine than for cocaine.

This report is based on 12 annual Sentinel Site reports which are available at:

<https://ndews.umd.edu/sentinel-sites/sentinel-sites-reports-and-community-contacts>

NDEWS Sentinel Community Epidemiologists

The NDEWS Coordinating Center works with 12 Sentinel Community Epidemiologists (SCEs) who are the local expert points of contact for the 12 NDEWS Sentinel Community Sites. They work with Coordinating Center staff to prepare annual profiles on emerging drugs and drug trends.

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OVERVIEW

Methamphetamine has been known to be a drug of misuse for decades. The first “speed” laboratory in the United States was reported in 1963 as methamphetamine use expanded in the 1960s (Spotts, 1980). In the mid-1980s, the National Institute on Drug Abuse (NIDA) reported that, “methamphetamine continues to be available and of high quality in most cities throughout the country” (NIDA, 1986). More recent national and local public health and law enforcement data indicate methamphetamine may be a growing problem in some areas and that availability and use varies considerably across the United States. This report combines information from national sources and the 12 NDEWS Sentinel Community Site (SCS) reports to create a fuller understanding of trends in the availability and use of methamphetamine in the United States. A major theme from our analysis is that there is extensive methamphetamine misuse in subsections of the United States that, although smaller than the opioid crisis, deserves heightened attention from policy makers. To explore this theme, opioids data are included along with methamphetamine data for each indicator.

This report is the first of three drug assessments to be released by the NDEWS Coordinating Center, each on a different drug.

METHAMPHETAMINE EFFECTS

Methamphetamine is a Schedule II stimulant that has a high potential for abuse and is available only by a nonrefillable prescription. It can be prescribed to treat disorders such as attention-deficit/hyperactivity disorder (ADHD), and prescribed doses are generally far lower than those typically abused. Methamphetamine is usually sold illicitly as a white, bitter-tasting powder or a pill or as crystal meth, which looks like glass fragments or shiny, bluish-white rocks. Methamphetamine can be smoked, swallowed, snorted, or injected. The “high” starts and fades quickly. Health effects can range from increased wakefulness and physical activity, decreased appetite, rapid or irregular heartbeat, and increased blood pressure to anxiety, confusion, severe dental problems, intense itching, and paranoia (NIDA, 2013). In the past, methamphetamine use has been reported predominantly in the western United States and in groups such as men who have sex with men, persons who engage in chemsex (sex enhanced by drugs), and workers who need to stay awake for long periods (Ahmed et al., 2016; Dirks et al., 2017; NDEWS Coordinating Center, 2017j; NDEWS Coordinating Center, 2017k; Solomon et al., 2012). Examples of drug slang for methamphetamine include aqua, amp, blue, beers, crank, cri-cri, crystal, crissy, girls, glass, go-fast, ice, lemons, tina, walking zombie, windows, and yellow kind (DEA, 2018).

NDEWS DRUG TREND REPORTS

Each year the 12 NDEWS Sentinel Community Epidemiologists (SCEs) from across the United States submit reports to the NDEWS Coordinating Center describing their local drug trends and emerging drug problems. These reports are available at www.ndews.org. After reviewing the 12 reports submitted in 2017, NDEWS Coordinating Center Staff selected three drugs to highlight in upcoming drug trend reports: methamphetamine, cocaine, and fentanyl. By interpreting the rich qualitative and quantitative information contained in the local site reports together with relevant national indicators, NDEWS Coordinating Center staff hope to provide a fuller understanding of a drug’s use and potential health consequences.

INFORMATION FROM NATIONAL DATA SOURCES HIGHLIGHTS REGIONAL VARIATION ACROSS THE UNITED STATES

In 2017, an Estimated 774,000 People (<1%) Aged 12 and Older Used Methamphetamine at Least Once in the Past Month

The 2017 survey of U.S. household members aged 12 and older estimated that approximately 774,000 (less than 1%) people used methamphetamine at least once in the past month. The number was larger than the estimated number of past month heroin users (494,000) but lower than the estimates for past month use of cocaine (2.2 million) and marijuana (26 million). There were an estimated 195,000 past year initiates. And, the estimated percentage of U.S. household members aged 18 to 25 who used methamphetamine at least once in the past month increased from 2016 (0.2%) to 2017 (0.4%). Due to the implementation of a new set of questions specific to methamphetamine, the results for 2015–2017 are not comparable with those from prior years. However, SAMHSA has reported that estimates of past month use of methamphetamine remained at less than 1% of people aged 12 or older for each year from 2002 to 2014 (2016 NSDUH Results, 2017a; 2017 NSDUH Results, 2018).



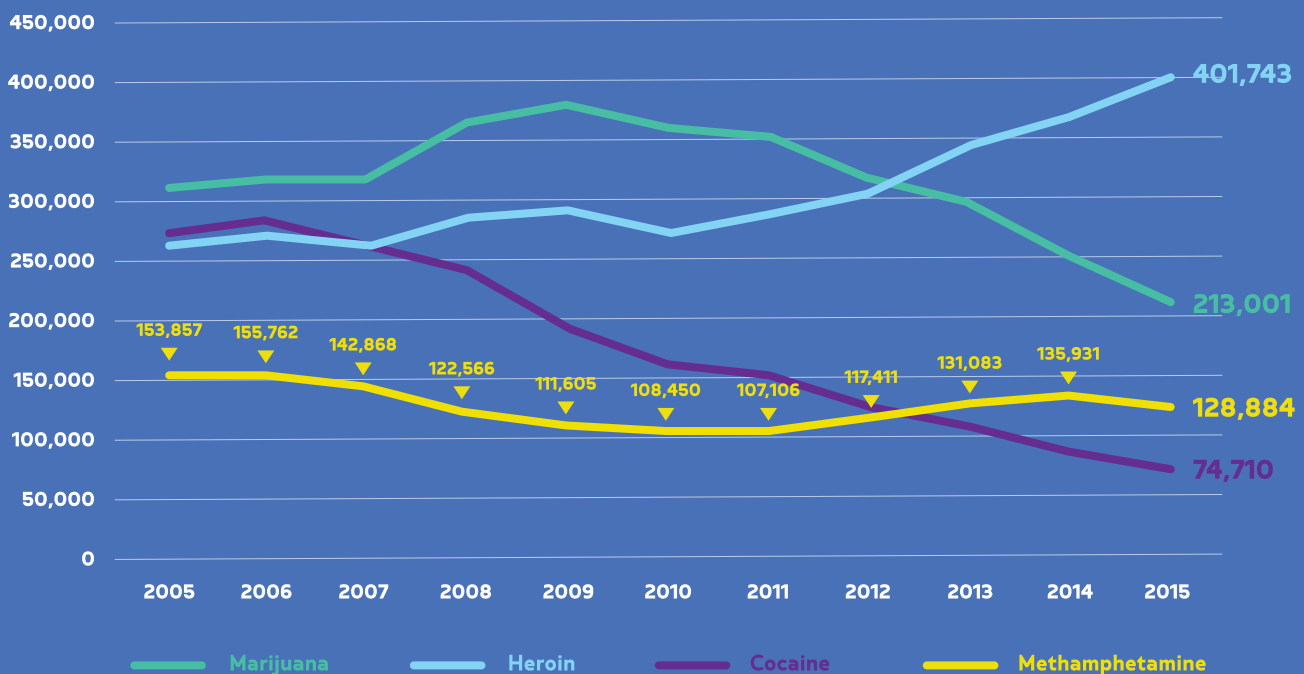
U.S. Drug Overdose Deaths Involving Methamphetamine Have More Than Doubled from 2010 to 2014

Although use has been low relative to that of other drugs, there are indications of nationwide increases in methamphetamine-related drug poisoning deaths. The number of drug overdose deaths involving methamphetamine and the age-adjusted rate per 100,000 population more than doubled from 2010 to 2014 from 1,388 to 3,728 (0.5 to 1.2 per 100,000; Warner et al., 2016). Some of this increase may be the result of changes in reporting as well as in the level of use. However, the broader category of psychostimulants with abuse potential shows a similar increase. In 2016, 2.4 per 100,000 drug overdose deaths (7,542) involved psychostimulants with abuse potential, which includes methamphetamine (Seth et al., 2018), an increase from 0.2 per 100,000 in 1999 (CDC, 2017). In contrast, the number of synthetic opioid drug poisoning deaths reported by the CDC increased from 3,007 in 2010 to 19,413 in 2016, and the number of heroin poisoning deaths increased from 3,036 to 15,469 (Jones et al., 2018). It is clear from these statistics that many more heroin-related overdose deaths occur than methamphetamine-related overdose deaths. In 2015, the highest rate of drug overdose deaths involving psychostimulants with abuse potential (which includes methamphetamine) was in the West (3.9) and the lowest was in the Northeast (0.5). For overdose deaths involving heroin, the opposite is found, the lowest rate is in the West (2.4) and the highest in the Northeast (6.3) (CDC, 2017).

Primary Admissions to Publicly Funded Treatment Facilities in the United States Involving Methamphetamine Increased 17% from 2011 to 2015 and Were Greater Than Cocaine Admissions from 2013 to 2015

According to the Treatment Episode Dataset (TEDS) National Report for 2015, the number of primary admissions to publicly funded treatment facilities involving methamphetamine increased 17%, from 107,106 in 2011 to 128,884 in 2015 (the most recent year for which data were available from TEDS, Figure 1). From 2013 through 2015, there were more primary admissions involving methamphetamine than cocaine. However, in the same period, the number of treatment admissions involving heroin as the primary substance of abuse increased 40%, from 286,304 in 2011 to 401,743 in 2015. There were more than three times more primary heroin admissions than primary methamphetamine admissions in 2015. The majority of methamphetamine admissions in 2015 were male (54%) and White (66%) and had an average age of 34. The most frequently reported route of administration was smoking (61%) (SAMHSA, 2017b).

Figure 1: Number of Treatment Admissions Nationwide Citing Selected Drugs as Primary Substance of Abuse, by Year and Drug, 2005–2015



NOTES: Based on administrative data reported to TEDS by all reporting states and jurisdictions. Percentages may not sum to 100 percent due to rounding. Percentages are based on all admissions with known and valid values. Admissions for which values were not collected, unknown, or missing are excluded from the percentage base (denominator).

SOURCE: Adapted by NDEWS from data from the Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.01.16.

More Than 70% of Local Law Enforcement Agencies from the Pacific and West Central Regions Report Methamphetamine as the Greatest Threat in Their Area

Nearly 30% of the 5,155 local law enforcement agencies across the United States responding to the National Drug Threat Survey reported that methamphetamine was the greatest drug threat in their area, and 45% reported that methamphetamine availability was high. Slightly more, 44% of respondents, reported heroin as their greatest threat, which was the highest threat perceived for any drug. However, there were large regional differences in the perceived availability of methamphetamine reported by law enforcement agencies. Availability of methamphetamine was reported greatest by agencies in the Pacific (79%), West Central U.S. (72%), and the Southwest (69%). Availability of methamphetamine was perceived to be much lower in the Mid-Atlantic (23%), New York/New Jersey (8%), and New England (6%). The purity and potency of methamphetamine seized across the United States remained high and stable from the first half of 2013 through the first half of 2016 (purity low of 95.6% to high of 97.5%; potency 86.7% to 94%) (DEA, 2017a).

The number of methamphetamine laboratory incidents across the United States peaked in 2004 with approximately 23,800 incidents reported to the El Paso Intelligence Center National Seizure System. By 2016, the number of incidents was the lowest it has been since 2000 at 4,421. Laboratory incidents were reported in 40 states in 2016 with the highest numbers appearing in the Great Lakes region. Although methamphetamine is the most frequently manufactured drug seized in clandestine labs in the United States, domestic production levels are limited compared with foreign-produced methamphetamine. According to the National Drug Threat Assessment, the types of methods currently used to produce methamphetamine include “one-pot” or “shake-and-bake” small scale labs that use common household items (e.g., pseudoephedrine/ephedrine) and foreign production using precursor phenyl-2-propanone (P2P) instead of pseudoephedrine. Mexico-produced methamphetamine using P2P can be particularly pure and potent. Mexico is the source of most of the methamphetamine available in the United States (DEA, 2017a).

U.S. Law Enforcement Seizures of Methamphetamine Also Vary by Region

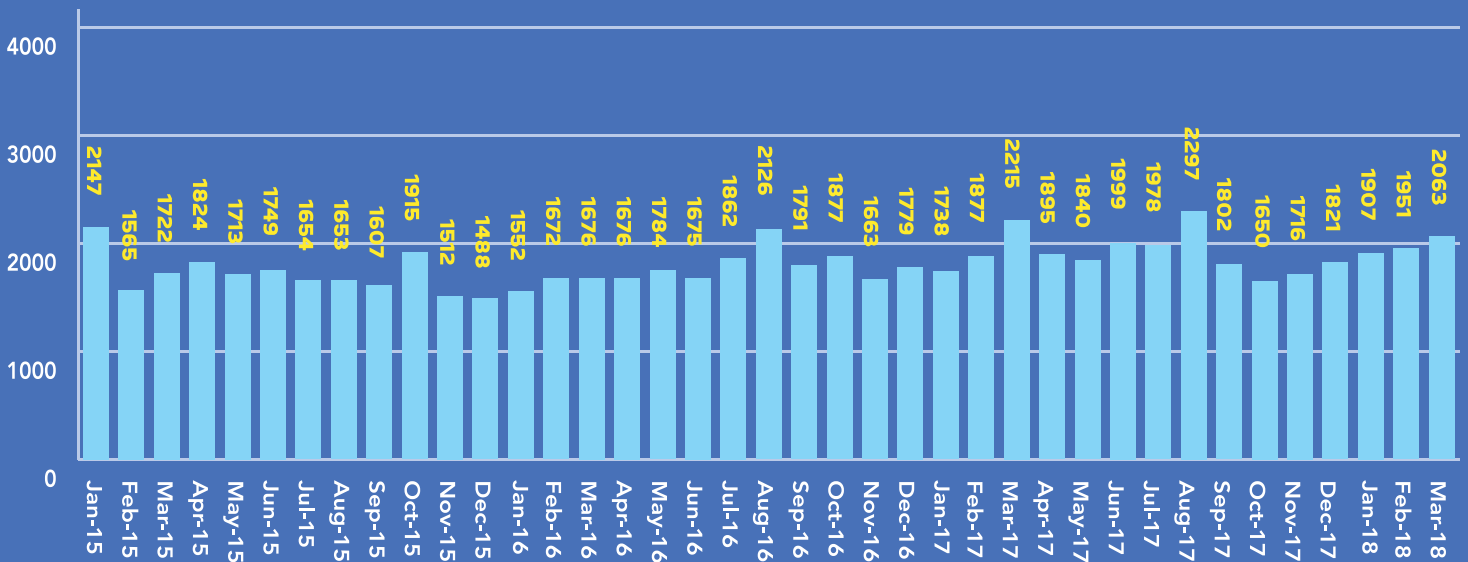
The National Forensic Laboratory System (NFLIS) is maintained by the U.S. Drug Enforcement Administration (DEA). NFLIS data serve as a surrogate measure of availability by identifying drugs found in specific geographical areas. State and local crime labs report toxicology results for items seized in law enforcement operations and submitted for testing. Items can test positive for multiple drugs, and each positive test constitutes a report. In 2016, methamphetamine was the second most frequently identified drug in items seized by law enforcement nationwide and reported to the NFLIS, after cannabis/THC. There were an estimated 314,872 reports for methamphetamine, accounting for 20% of all drug reports (DEA, 2017b). Methamphetamine reports submitted to NFLIS have increased 33% from 2014 to 2016 (DEA, 2014). This increase could reflect greater law enforcement focus on the drug as well as changes in availability. NFLIS reports for methamphetamine vary greatly by region of the country. The highest percentage was found in the West (44%), where methamphetamine was the most frequently identified drug. The lowest percentage (2%) was reported in the Northeast, the region with the highest percentage of heroin reports and cocaine reports (DEA, 2017b).

As use of fentanyl has increased in the United States, there have been reports of seizures positive for methamphetamine mixed with fentanyl and fentanyl-related compounds. The number of exhibits analyzed by DEA forensic laboratories containing both methamphetamine and fentanyl increased from 4 in 2014 to 16 in 2016. “These exhibits contained various combinations of methamphetamine with fentanyl, carfentanil, heroin, and cocaine. . . . These combinations have been seized [by law enforcement] in multiple states across the country, to include Florida, Georgia, Pennsylvania, Massachusetts, Michigan, New Jersey, New York City, North Carolina, Tennessee, and Washington” (DEA, 2017a, p. 71).

Media Attention to Methamphetamine Is Relatively Low and Stable

NDEWS Coordinating Center staff conduct monthly news scans of more than 300 English-language newspapers to monitor trends in media coverage of selected drugs. The NDEWS news scans found that the number of articles mentioning methamphetamine remained fairly steady from January 2015 until October 2017, ranging from a low of approximately 1,500 in November and December 2015 to approximately 2,200–2,300 in March and August 2017 (Figure 2). The number of articles mentioning methamphetamine has steadily increased since October 2017. Although still lower than the peak reached in August 2017, in March 2018, 2,063 articles mentioned methamphetamine. In comparison, there were 8,435 articles mentioning marijuana, 4,224 mentioning cocaine, and 3,348 mentioning heroin. Thus, there seems to be less media attention given to methamphetamine than to other drugs.

Figure 2: Monthly Newspaper Reports About Methamphetamine Have Been Stable, Jan. 2015–Mar. 2018

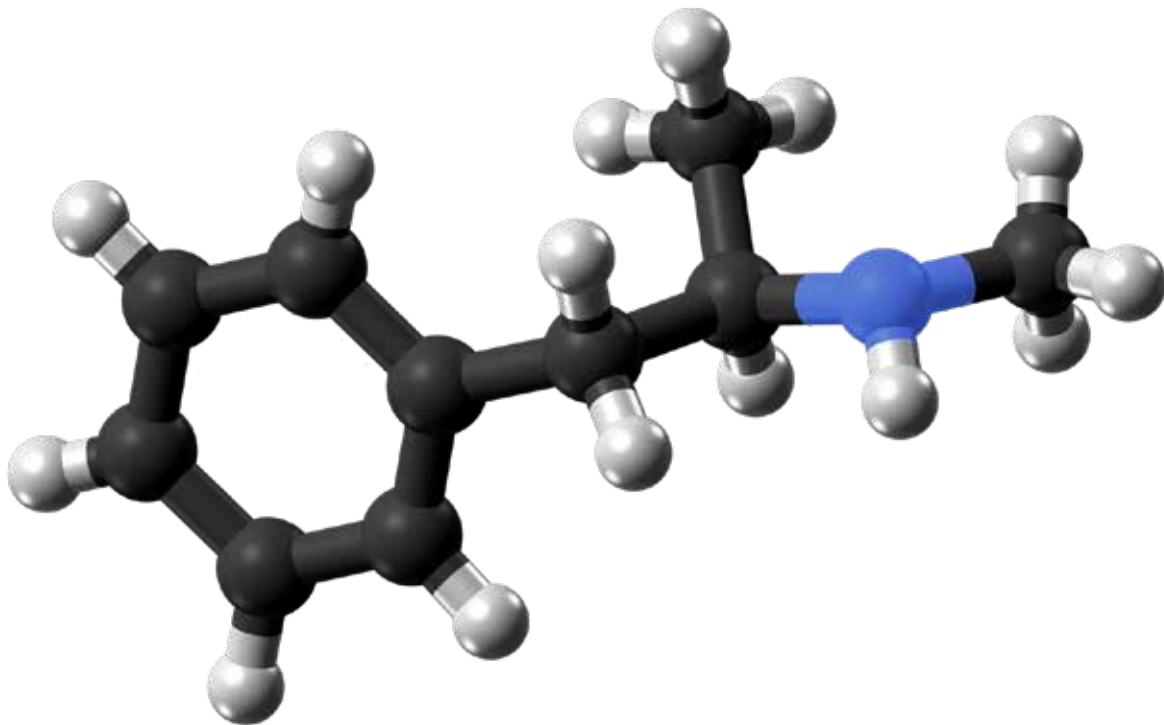


SOURCE: NDEWS analysis of searches of the LexisNexis Academic ALLNEWS database for the terms “methamphetamine.” The ALLNEWS database contains articles from more than 2,400 English-language newspapers and web news sources. Duplicates were removed with the “moderate similarity” filter in LexisNexis.

NOTES: Outbreaks of drug problems often come to public attention first via media reports. NDEWS conducts periodic reviews of published news articles and special scans for specific drugs. This graph represents a rough estimate of the number of news articles reporting on a drug or drug use issue. Not all newspapers and web news sources are catalogued in LexisNexis, and the sources may change at any time. Although a duplicate filter was used in the original LexisNexis search, duplicate articles may remain in the results. In addition, this is a count of articles not incidents, as many articles may report on the same incident.

Conclusions from the Review of National Sources

- ▶ **1** National estimates of methamphetamine use are low relative to the use of other illicit drugs such as opioids.
- ▶ **2** However, the use of methamphetamine varies considerably by region of the country and the national estimates mask these differences.
- ▶ **3** Pacific and West Central law enforcement agencies perceive a significant threat from methamphetamine and the drug is present in many of their seizures.
- ▶ **4** Drug overdose deaths and treatment admissions related to methamphetamine are increasing perhaps because methamphetamine is mixed with other drugs.
- ▶ **5** Because the national indicators reviewed show a much greater problem with opioids especially on the East Coast, methamphetamine receives far less attention from the media and policy makers.



WHAT THE 12 NDEWS SENTINEL COMMUNITY SITE (SCS) REPORTS REVEAL ABOUT METHAMPHETAMINE

The remainder of this report will examine how the information from the NDEWS Sentinel Community Epidemiologists (SCEs) in 12 SCSs (see Figure 3) provides a picture of regional methamphetamine-related problems in the United States. Data provided here describes trends through 2016, while yellow boxes provide 2017 data received from the SCEs during the preparation of this report, July 2018. The NDEWS sites were selected because they offer both accessible data for monitoring drug trends and scientists experienced in reporting on drug trends. The local experts and leading researchers reporting on these sites bring many years of experience monitoring and reporting on drug trends in their areas. They access a variety of national and local public health and law enforcement sources to prepare their drug assessments. Reports often use ethnographic and rich descriptive data. Although informative, this information and their conclusions probably do not represent the full scope and diversity of use and availability of any drug in their sites, and they do not describe drug patterns in every state. Even though these sites cannot provide information for all U.S. states, they are diverse enough to provide some indication of how drug use and availability may vary across the country. A detailed discussion of each site's methods and data limitations can be found in the full reports at: <https://ndews.umd.edu/sentinel-sites/sentinel-sites-reports-and-community-contacts>

Figure 3 shows which sites experienced increases in the public health and law enforcement methamphetamine indicators reviewed in the following sections. In addition, the NDEWS Coordinating Center held a virtual meeting with the 12 NDEWS SCEs in June 2018 at which site reporters shared updates and key findings for their site. Key methamphetamine findings from this meeting are provided for drug poisoning deaths, treatment admissions, and law enforcement seizures and in a special section at the end of this report.

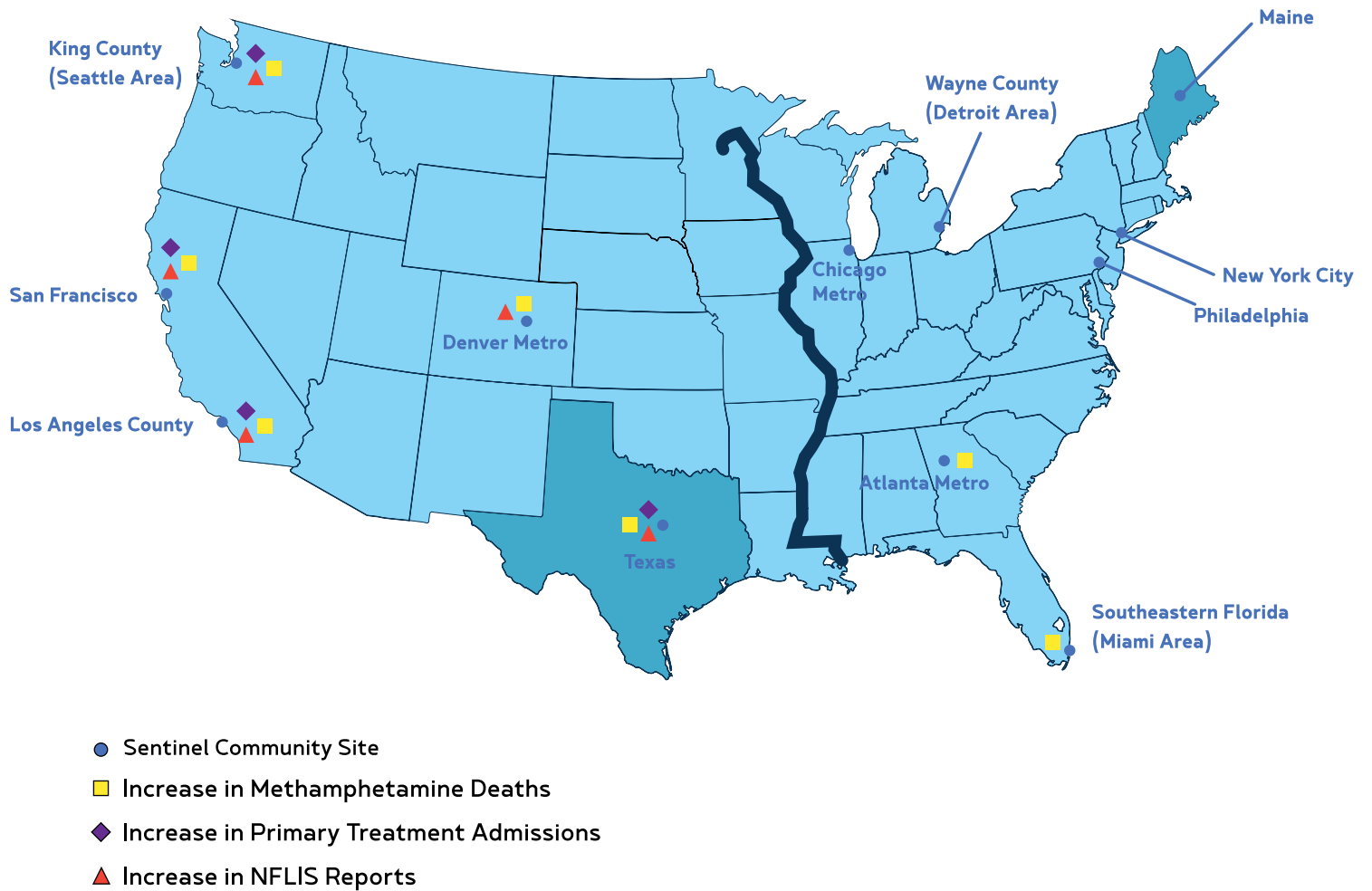
Texas Hits New Peak in Methamphetamine Drug Poisoning Deaths in 2016; Six Other NDEWS Sites Reported Increases

Seven NDEWS sites identified increases in drug poisoning deaths involving methamphetamine in 2016: King County, San Francisco, Los Angeles County, Denver Metro, Texas, Atlanta Metro, and Southeastern Florida. The reports for King County, Denver Metro, and Southeastern Florida each described steady increases in deaths over the past several years. The Texas report stated that, "the number of deaths involving the use of methamphetamine in 2016 . . . were higher than they have ever been" at 715. The increased purity levels of methamphetamine in the local drug market, according to the Atlanta Metro report, "have led to more deaths both in Atlanta and throughout Georgia." In addition, two reports stated that methamphetamine deaths also often involved heroin or other opioids (King County, 51%; Texas, 17%). In comparison, 9 sites spread across the country (6 of the 7 eastern sites, San Francisco, and Los Angeles County) described an increase in deaths related to opioids such as heroin and fentanyl.

UPDATE

5 NDEWS sites have reported that drug poisoning deaths involving methamphetamine continued to increase in 2017: King County, Denver Metro, Texas, Southeastern Florida, and Atlanta Metro.

Figure 3: NDEWS Sentinel Community Sites with Increases in Key Indicators from 2015 to 2016



NOTES: An increase for NFLIS reports and primary treatment admissions is defined as an increase in the actual number AND as an increase of 1% or more in the percentage of total reports or admissions. An increase in overdose deaths is defined as an increase in the actual number of overdose deaths.

SOURCE: Adapted by the NDEWS Coordinating Center from data from CDC WONDER Multiple Cause of Death data, special DEA NFLIS runs completed on May 18, 2016 and May 28, 2017, and drug treatment program admissions data provided by the NDEWS SCEs.

Primary Treatment Admissions for Methamphetamine Differed Greatly in East Versus West

The SCEs obtain data on treatment admissions from their local state agencies and treatment programs that they provide annually to NDEWS and analyze in their site reports. They use these data as a measure of adverse health consequences from methamphetamine in their sites. Figure 4 shows major differences in treatment admissions with methamphetamine as the primary substance of use across the country in 2016. Methamphetamine was almost missing (<1%) as a primary substance among treatment admissions in the NDEWS sites east of the Mississippi River. In contrast, methamphetamine ranks in the top four primary substances reported by treatment admissions in all five NDEWS sites west of the Mississippi River. We found that 12% to 29% of drug treatment admissions in each of these five sites in 2016 reported methamphetamine as their primary substance of abuse. One east of the Mississippi site, Atlanta Metro, was an exception and had a steady increase in admissions with methamphetamine as a primary substance of abuse from 5.6% in 2011 to 8.8% in 2014. Data were not available in Atlanta Metro for 2015 or 2016, but in 2017, nearly 11% of primary treatment admissions involved methamphetamine, making it the second most frequently reported illicit drug after marijuana. In all five western sites, primary admissions for methamphetamine were higher than primary admissions for cocaine.

The NDEWS local treatment data showed increases in primary methamphetamine admissions within sites and identified differences in affected populations between sites. Texas and Los Angeles County both reported a steady increase from 2012 to 2016 (9.5% to 16.9% in Texas; 16.9% to 29% in Los Angeles County). However, the characteristics of the treated users of methamphetamine in these two sites differed. While in Los Angeles County the majority of people mentioning methamphetamine as the primary substance of abuse were male (54%) and Hispanic (64%), the majority of those in Texas were female (56%) and White (77%). Although smoking was the most frequently mentioned route of administration in both sites (76% Los Angeles County, 53% Texas), the female users in Texas were most likely to report taking the drug orally.

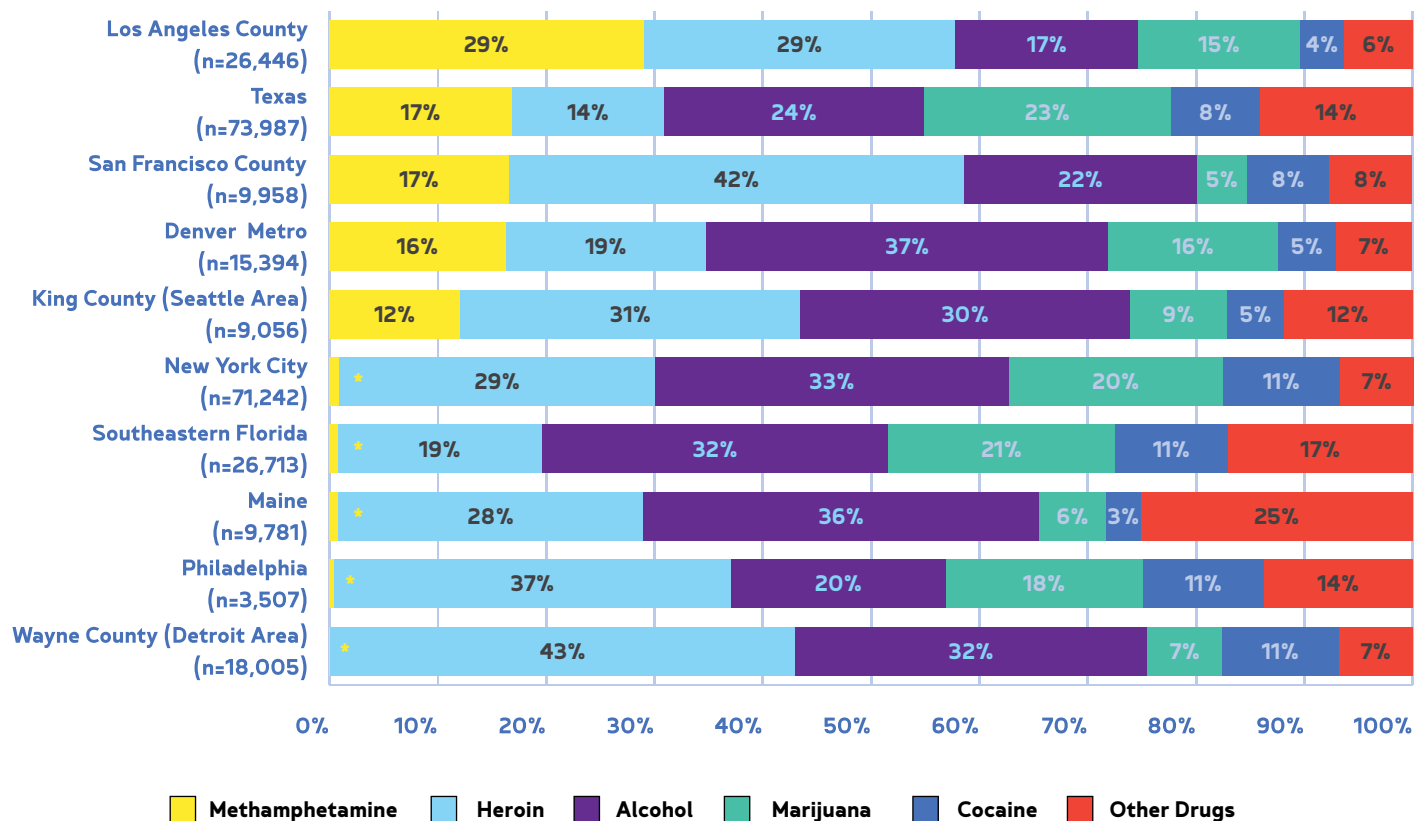
UPDATE

San Francisco, Los Angeles County, Texas, and Southeastern Florida SCEs all reported increases of 9% to 11% in primary methamphetamine treatment admissions.

Methamphetamine Is Top Drug Identified by Law Enforcement in Six NDEWS Sites (King County, San Francisco, Los Angeles County, Denver Metro, Texas, and Atlanta Metro)

NDEWS has collaborated with the DEA Diversion Control Division to provide special NFLIS runs for each NDEWS site catchment area twice a year. These data enable NDEWS to conduct locally specific analyses of drugs detected in law enforcement seizures. The 2016 data show that methamphetamine was the top drug identified by law enforcement in all five NDEWS sites west of the Mississippi River, as well as in Atlanta Metro. As shown in Figure 5, in four of the western sites and Atlanta Metro, the percentage of methamphetamine drug reports was more than 30% of total drug reports submitted to NFLIS. All 5 were higher than the national percentage (22%), and in the remaining 7 sites, methamphetamine reports were 6% or fewer of total analyzed reports. Again we see how the national data trends can obscure the larger problems in some areas of the country.

Figure 4: Percentage of Treatment Admissions in Each NDEWS Sentinel Community Site (SCS)^ Citing Selected Drugs as Primary Substance of Misuse, 2016



^SCS: 2016 treatment data were not available for the Atlanta Metro and Chicago Metro SCSs.

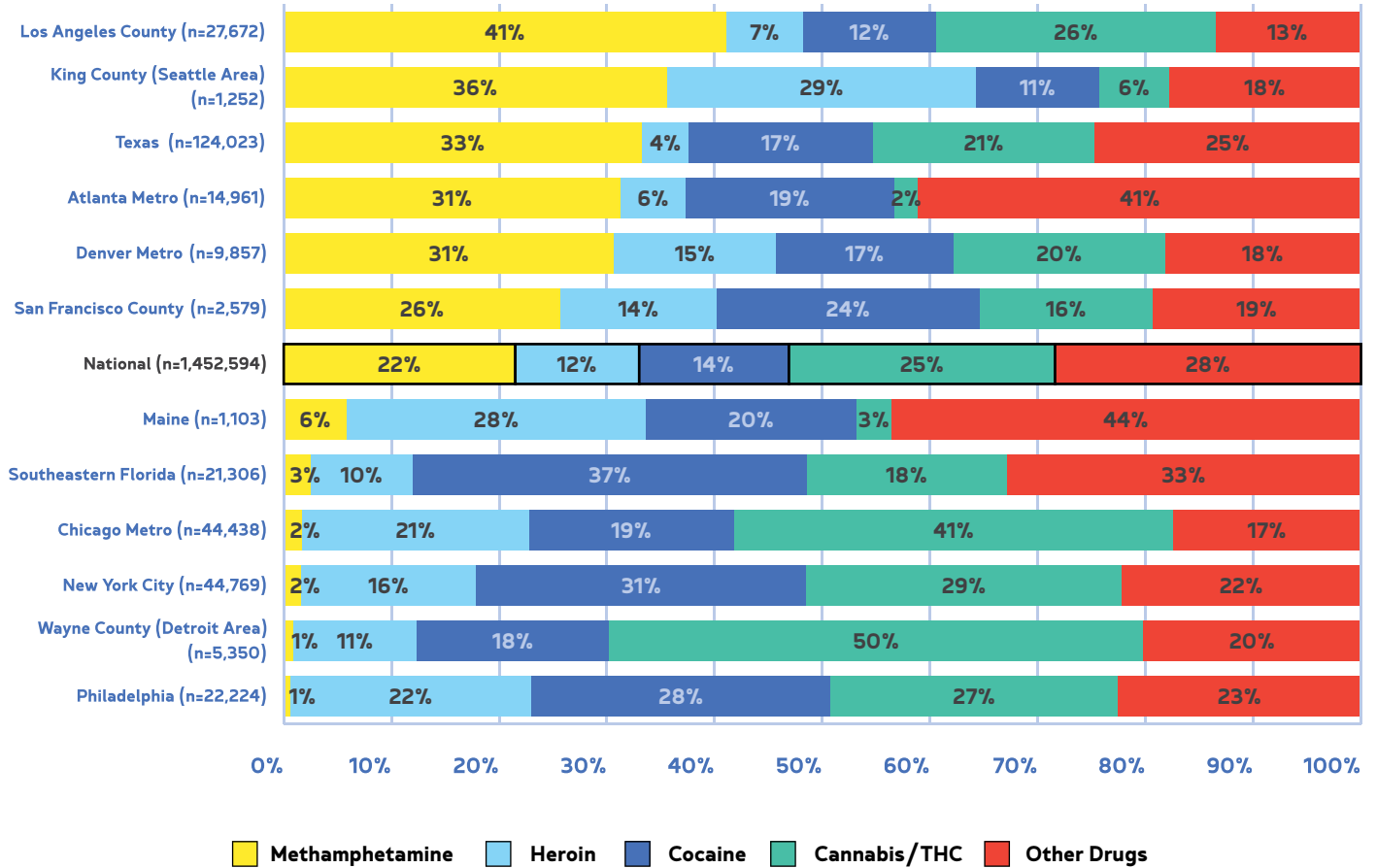
*Less than 1%.

Methamphetamine: In Philadelphia and Texas, the methamphetamine category includes both amphetamines and methamphetamine.

Admissions: Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

SOURCE: Adapted by data provided by the NDEWS SCEs and their local data sources. See Overview & Limitations within individual site reports for sources and definitions of the local treatment data: <https://ndews.umd.edu/sentinel-sites/sentinel-sites-reports-and-community-contacts>

Figure 5: Drug Reports Identified for Items Seized by Law Enforcement in U.S. and NDEWS Sites, 2016
DEA National Forensic Laboratory Information System (NFLIS)
 Percentage of Total Drug Reports Identified (n = Total Drug Reports)



DRUG REPORT: Drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database. The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

SOURCE: SCS Drug Reports adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Diversion Control Division, Drug and Chemical Evaluation Section, Data Analysis Unit. SCS Drug Report data were retrieved from the NFLIS Data Query System (DQS), May 28, 2017.

UPDATE

Methamphetamine was the top drug identified by law enforcement in all five NDEWS sites west of the Mississippi River, as well as in Atlanta Metro, again in 2017. The percentage of methamphetamine drug reports in each of these sites was approximately one third of the total drug reports submitted to NFLIS by the site.

Changes in Local Marketing Strategies and Purity

The NDEWS reports for Texas, Atlanta Metro, and Maine provide rich details about the marketing strategies of drug trafficking organizations and the purity and production of the methamphetamine available in local drug markets. This information underscores the subtle changes occurring in sites across the United States and in sites not traditionally viewed as experiencing methamphetamine use. The Atlanta Metro report describes the decreased price and elevated average purity of methamphetamine in the local market, which has reached 90%, and that conversion of methamphetamine from a liquid to a crystallized form is increasingly being conducted in the city. In fact, two large seizures occurred in 2017 including 650 pounds of liquid methamphetamine. Liquid methamphetamine is processed in conversion laboratories to reconstitute it back into crystal methamphetamine. Furthermore, although the drug distribution systems for methamphetamine and cocaine in Atlanta Metro have historically been separate at the retail level, law enforcement officials and results from local ethnographic reporting now suggest that greater numbers of retail distributors are now selling both methamphetamine and cocaine. The Texas report also describes the increasing availability of liquid methamphetamine and a potency of more than 90%, which is attributed to a new Mexican production method using P2P known as the nitrostyrene method. As in Atlanta Metro, the Texas report states that local drug trafficking organizations are exploring new markets and products. “Street outreach workers report there is a crystalline ‘blue meth’ named after the ‘Breaking Bad’ show, and methamphetamine combined with heroin is known on the streets as ‘La Diable.’”

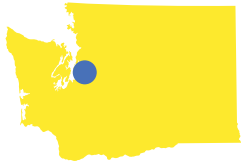
In Maine, “the incidence of methamphetamine small lab incidents has been rising sharply over the last several years, going from 28 in 2014 to 56 in 2015, then more than doubling to 125 in 2016.” The Southeastern Florida report also includes information on local production: “Domestic laboratory production in Florida primarily seems to be in the northern and central parts of the state where the 2-liter soda bottle ‘shake-and-bake’ method is used to yield a small amount of methamphetamine for personal use by the ‘cook’ and for sharing with those who may have helped supply the precursor, pseudoephedrine.”

Conclusions from the SCS Reports

- 1 Clear regional variations exist in the use, availability, and health consequences of methamphetamine
- 2 Law enforcement focus on methamphetamine also shows clear regional variations.
- 3 In all 5 sites west of the Mississippi River, there were more people admitted to treatment for methamphetamine than for cocaine.

ADDITIONAL INDIVIDUAL SITE UPDATES

The NDEWS Coordinating Center held a virtual meeting with the SCEs in June 2018 to discuss emerging drug trends. Ten of the 12 sites specifically highlighted increases in methamphetamine indicators in 2017. Six sites rated methamphetamine as an extreme problem on a scale of 1 to 7—San Francisco (7), Texas (7), Denver Metro (7), Los Angeles County (6), King County, and Atlanta Metro (6). All other SCS rated it as a 5 or lower. As would be expected from data presented earlier in this report, sites from the Northeast rated methamphetamine lower than those in the West. Key findings for each site are listed as follows. Additional information will be available in the full site reports released in fall 2018:



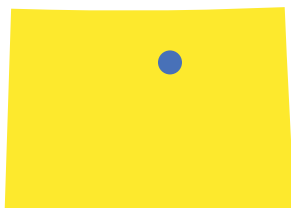
King County: There has been a dramatic increase in indicators such as police seizure toxicology results and overdose deaths involving methamphetamine. Methamphetamine-involved deaths, for example, increased fivefold from 2011 to 2017.



San Francisco: Numerous indicators suggest an increase in use and methamphetamine-related morbidity and mortality. Substance use disorder treatment admissions for methamphetamine continued to rise, as have hospitalizations, emergency department visits, and law enforcement seizures. Deaths involving methamphetamine increased from 2008 to 2016.



Los Angeles County: Indicators remain at generally high levels. Continuing increases were seen in treatment admissions and NFLIS reports for methamphetamine (highest of any substance at 31% and 47%, respectively); little change occurred in medical examiner toxicology cases; methamphetamine was the second most frequently identified drug; a slight decrease was seen in poison control calls with rates remaining low (4%).



Denver Metro: Methamphetamine-involved overdose fatalities are increasing in the city and county of Denver, the Denver Metropolitan Area (DMA), and the state of Colorado. In the DMA, methamphetamine overdoses have increased almost every year since a low of 23 in 2008. The largest increase was seen from 2016 to 2017 with increases from 112 (3.6 per 100,000) to 152 (4.7 per 100,000). In 2017, methamphetamine was involved in 298 overdose deaths across Colorado. In the city and county of Denver, methamphetamine was involved in 88 of the 201 overdose deaths in 2017.



Texas: Methamphetamine has now surpassed heroin in many indicators and is now the primary public health problem in Texas. More poison center calls, treatment admissions, deaths, and NFLIS items are currently identified for methamphetamine than for heroin. It is ranked as the #1 drug threat by the Dallas and Houston DEA Field Divisions. Methamphetamine continues to be made using P2P, not cold medicines, and major drug seizures of large quantities imported from Mexico are more commonly reported.



Southeastern Florida: There has been an increase in methamphetamine-involved overdose deaths statewide and in the Southeastern Florida region, which are linked to use with opioids. Methamphetamine-involved deaths more than doubled statewide from 2015 to 2016 and continued to increase in 2017. Although the number of methamphetamine deaths remains low in the Southeastern Florida region relative to other areas of the State, they have been steadily increasing in recent years.



Atlanta Metro: For the first time in 2017, primary treatment admissions related to methamphetamine (10.7%) were higher than primary treatment admissions for cocaine (10.0%). The number of statewide decedents who had methamphetamine “on board” rose 26.4% from 2016 to 2017, the second largest increase of any drug category. Ethnographic reporting cited increased purity rates of more than 90% and greater supply as primary reasons for the increase in deaths.



Chicago Metro: Methamphetamine is becoming more common. It is primarily used by men who have sex with men and some Asian ethnic groups though it may be consumed by people thinking that they are purchasing MDMA. NFLIS reports positive for methamphetamine have increased annually since 2013. Rural counties in southern Illinois have experienced a steady increase in ice methamphetamine produced in Mexico rather than locally, according to law enforcement authorities.



Maine: As in prior years, indicators for methamphetamine remained low and showed mixed trends. The percentage of overdose deaths involving methamphetamine remained below 5%, but increased slightly. The number of small lab incidents which increased steadily from 2013 to 2016 (127), decreased sharply in 2017 (56). Statewide law enforcement seizures testing positive for methamphetamine followed a similar trend increasing from 2015 (50) to 2016 (86) and decreasing in 2017 (57).



Remaining SCEs: The Wayne County, Philadelphia, and New York City SCEs did not mention emerging methamphetamine trends as part of their key findings during the Spring 2018 discussion. Wayne County and New York City SCEs ranked methamphetamine as not a public health problem, and the Philadelphia SCE ranked it as “Don’t Know.”

SUMMARY

The national indicators underscore the opioid crisis in the United States but mask the large public health and law enforcement problems related to methamphetamine in certain regions of the country. In some areas of the country, for example, there are almost no primary methamphetamine treatment admissions, whereas in others, methamphetamine admissions are higher than those for heroin. It is important to note, however, that it is also clear that many more people died as a result of overdose from opioids than from methamphetamine.

Our review of the 12 local NDEWS site reports demonstrates the value of obtaining epidemiologic information from geographically diverse sentinel sites. The local reports confirm and expand on regional differences. Although we

expected to find differences, our review of treatment admissions paints a picture of treatment systems in the West overwhelmed with primary methamphetamine admissions, while there were almost no such admissions in the East sites we studied (12% to 29% vs. <1%).

Another issue of concern raised by NDEWS SCEs is the possibility of mixing or using methamphetamine with other drugs. This polydrug use could suggest a significant public health problem like the one caused by mixing heroin with fentanyl and other drugs, which is raising overdose and death rates in many parts of the United States.

Additional information about methamphetamine and other drugs and their impact on public health in the NDEWS SCSs can be found in the full site reports available at:

<https://ndews.umd.edu/sentinel-sites/sentinel-sites-reports-and-community-contacts>



Artistic rendering of DEA 2018 Slang Terms list sized for aesthetic purposes and is not a measure of use.

IMPLICATIONS FOR PUBLIC HEALTH

Although opioids constitute a larger national crisis, methamphetamine use also presents a crisis in some regions of the country. Often, the use of opioids and methamphetamine and the public health crises created can overlap. Treatment and other resources must now focus on uncovering the nature of the methamphetamine problem before it expands to additional regions of the country.

The Ohio Department of Health, for example, sent out an advisory to county health departments about fentanyl-laced cocaine and methamphetamine on February 21, 2018. The Department of Health reported that “overdose deaths in which both fentanyl and methamphetamines/other psychostimulants were mentioned on the death certificate increased 142 percent from 2016 (117) to 2017 (283)” (ODH, 2018). The NDEWS Coordinating Center is currently working with researchers at Case Western University to conduct a HotSpot study in Cuyahoga County, Ohio, that is focusing on polydrug use by opioid injectors with a specific interest in learning more about the use of fentanyl and stimulants such as cocaine and methamphetamine.

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CREDITS

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Page 7: Wikimedia Commons; Methamphetamine molecule; Crystallographic data from P. Hakey, W. Ouellette, J. Zubieta and T. Korter (May 2008). "Redetermination of (+)-methamphetamine hydrochloride at 90 K"; Acta Cryst. E64, o940. DOI:10.1107/S1600536808011550

Page 16: Word Cloud; Methamphetamine drug slang terms excerpt from the Drug Enforcement Administration (DEA) Intelligence Report; Slang Terms and Code Words: A Reference for Law Enforcement Personnel, July 2018

DISCLAIMER

The information and opinions expressed herein are the views of the authors and do not necessarily represent the views of the National Institutes of Health or the National Institute on Drug Abuse.