

NDEWS *National Drug Early Warning System*

Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse

Chicago Metro Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018

November 2018

NDEWS Coordinating Center

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National Drug Early Warning System (NDEWS) Chicago Metro Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018

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Highlights

- **Alprazolam** was the most frequent **benzodiazepine** found in drug items seized by law enforcement, and the number of these reports increased over three-fold from 2011 to 2017.
- **Cocaine** indicators suggested an uptick in availability and usage. In 2012, cocaine fell to third in the number of National Forensic Laboratory Information System (NFLIS) drug reports among items seized and analyzed, behind marijuana and heroin, and it remained in that position through 2016. The number of cocaine items declined 12.8% in 2016 compared with 2015 but climbed 22.6% in 2017, and cocaine moved to second among seized drugs in the Chicago MSA, behind only cannabis.
- **Marijuana** remained the drug most often found in NFLIS reports and was plentiful across the Chicago metropolitan statistical area (MSA). Arrests for possessing marijuana declined sharply.
- **Methamphetamine** is becoming more common in Chicago, and it currently ranks sixth among seized drugs reported in the NFLIS database. In Chicago, the drug primarily is used by men who have sex with men and some Asian ethnic groups, although it may be consumed by persons thinking they are acquiring MDMA (ecstasy).
- Among new and notable drugs, **synthetic cannabinoids** remained common in NFLIS reports with 13 varieties documented. Illinois experienced a major episode of people experiencing severe bleeding, including four deaths, following recent use of synthetic cannabinoids. Both **piperazine** and **tryptamine** reports in NFLIS experienced substantial declines.
- **Heroin** continued to be the primary opioid abused in the Chicago region but increasingly contained fentanyl. Heroin use indicators maintained levels that had been elevated since the mid-1990s.
- Reports of **fentanyl** greatly increased in the NFLIS database and continued to rise as a contributor to fatal drug overdoses .

- **Hydrocodone** was the most commonly used prescription opioid in the Chicago MSA.
- **PCP** reports in 2017 declined among NFLIS reports for the Chicago MSA after steadily increasing between 2007 and 2015, from 115 to 585.
- **Counterfeit prescription drugs** have increased markedly according to the state police forensics lab, including versions of hydrocodone, oxycodone, tramadol, and alprazolam. In some cases, the counterfeited versions contain fentanyl.

NDEWS Priority Substances

COCAINE/CRACK

Cocaine continues to constitute a serious drug problem for Chicago. Although its use declined earlier in the decade, quantitative and qualitative cocaine indicators suggest that it has leveled recently. In 2003, cocaine was second only to cannabis among National Forensic Laboratory Information System (NFLIS) drug reports for the Chicago MSA, and it constituted 34% of all drug reports and 64% of all reports other than cannabis. By 2012, cocaine had declined to third place among seized and analyzed drug reports, and it constituted only 16% of all drug reports and 37% of all reports other than cannabis. Cocaine remained third among NFLIS drug reports until 2017, when it moved to second place and comprised 25% of all reports and 34% of reports other than cannabis. The local state police forensic lab reported finding fentanyl present in a “handful” of cocaine samples. Based on the packaging and the difficulty in detecting the fentanyl in these samples, the lab suspected that the presence of fentanyl was accidental and perhaps occurred when the cocaine was being prepared for sale.

Treatment episodes for primary cocaine use in Chicago declined from 25% of all treatment admissions in FY2007 to 7% in FY2017. The majority of cocaine clients (81%) reported smoking crack cocaine as the primary route of administration. Alcohol was the secondary drug (31%) most often mentioned by cocaine clients. Cocaine was the most commonly mentioned secondary drug among clients treated for primary alcohol and primary heroin problems. In FY2017, African Americans remained the largest group treated for cocaine abuse (at 70%); more males were admitted for cocaine problems (65%) than were females.

Arrests by the Drug Enforcement Administration’s (DEA) Chicago Field Division for cocaine declined from about 1,100 in 2000 to less than 500 in 2016. Likewise, case initiations declined during that period from over 700 to fewer than 200. The amount of cocaine seized in FY2012 declined for the eighth consecutive year to the lowest level in more than 20 years. The 255 kilograms of cocaine seized in FY2012 represented a 94% reduction compared with FY2007—the peak year since FY2000—and an 86% reduction since 2007, the first year that cocaine shortages were reported. Cocaine seizures increased in 2013 to 1,651 kilograms but then declined again in 2014 and 2015 to 654 kilograms and 471 kilograms, respectively.

DEA data indicate wholesale prices for a kilogram of powder cocaine in Chicago have increased from \$17,000–\$25,000 in 2007, to \$24,000–\$45,000 in FY2012, and to \$28,000–\$39,000 in the second half of 2014. Prices remained at this level in CY2017 (\$27,000–\$39,000). Prices for an ounce of powdered cocaine reported by the DEA in CY2017 ranged from \$800 to \$1,500. Prices for one ounce of crack cocaine in CY2017 ranged from \$800 to \$1,500, according to the DEA. Crack typically sold for \$5–\$20 per bag; this price has been stable for many years. Ethnographic reports indicated that although crack cocaine remained readily available in street markets, there continued to be reports of areas with only moderate availability. The availability of powdered cocaine in street markets was moderate to low.

The Youth Risk Behavior Survey (YRBS) assesses lifetime cocaine use among public high-school students in the city of Chicago. Any use of cocaine was reported by 4.2% (confidence interval [CI] = 2.4–7.3) of students in 2005. Between 2007 and 2013, the prevalence of lifetime cocaine use ranged from 5.9% to 7.1% (2015 data are unavailable). In 2017, 6.6% (4.5–9.7) of Chicago students reported ever using cocaine. Males were significantly more likely than females to report ever using cocaine (8.3% vs. 4.3%, $p = .00$). For Illinois students, 6.4% (4.8–8.3) reported lifetime use of cocaine in 2017, which was up from 2015 (5.4%, CI = 4.4–6.7) but with the range reported since 2007.

METHAMPHETAMINE

Methamphetamine treatment episodes ($n = 58$) constituted less than 1% of all treatment admissions in Chicago in FY2017. After a substantial increase in the proportion of episodes involving African Americans seeking treatment for methamphetamine abuse (from 15% in FY2005 to 47% in FY2006), there was a decline to 30% in FY2007 and to 10% in FY2011. In FY2017, the proportion of African Americans seeking treatment in Chicago for methamphetamine abuse was 17%. Males (representing 74%) continued to be more likely to seek treatment than females probably because the use of methamphetamine in Chicago has been concentrated among the population of men who have sex with men (MSM). The proportion who reported that smoking was the primary route of administration decreased from 65% in FY2011 to 41% in FY2017. Injection increased from 20% to 30% between FY2011 and FY2012, and to 41% in FY2017. Marijuana was the predominant secondary drug used with methamphetamine in Chicago (17%).

NFLIS reported a notable increase in the number of methamphetamine drug reports among items seized and analyzed in the Chicago MSA in 2014 ($n = 367$) compared with 2013 ($n = 278$), 2012 ($n = 229$), and 2011 ($n = 287$). This trend has continued with 620 reports of methamphetamine in 2015, 761 reports in 2016, and 1,320 reports in 2017. As a proportion of all seized drug items other than marijuana, methamphetamine has increased from 0.9% in 2013 to 4.4% in 2017. When methamphetamine is identified by the lab, however, it often is in drug items sold as ecstasy. Most methamphetamine seized by the DEA's Chicago Field Division is produced in large laboratories based in Mexico.

According to the YRBS, lifetime use of methamphetamine among Chicago public high-school students increased significantly from 1.5% (CI = 0.7–3.3) in 2005 to 3.4% (CI = 2.7–4.3) in 2011, to 3.7% (CI = 2.4–5.5) in 2013, and to 4.7% (CI = 3.0–7.4) in 2017. Use was significantly greater among male students (5.8%) than among female students (3.0%). Atypically, lifetime methamphetamine use among high-school students was more prevalent in Chicago in 2017 than in the state of Illinois as a whole (3.7%, CI = 2.7–5.0), although this difference could be due to chance. This level of methamphetamine use is within the range reported since 2007.

Within Chicago, a low but stable prevalence of methamphetamine use has been reported for many years in the North Side gay community and occasionally among some Asian ethnic groups. In the 2010 reporting period, the Community Outreach Intervention Projects (COIP) staff heard for the first time of modest availability of methamphetamine in some South Side African American neighborhoods. In the January 2014 reporting period, staff for the first time learned of a methamphetamine laboratory in an African American neighborhood and, increasingly, of use among some young gay men of color.

Seizures of methamphetamine by the DEA's Chicago Field Division since 2005 have ranged from a high of 139 kilograms in 2005 to a low of 44 kilograms in 2007. Seizures of methamphetamine in recent years have been toward the low end of this range with 63 kilograms in FY2015, 48 kilograms in FY2014, and 45 kilograms in FY2013. Nevertheless, methamphetamine seized in Chicago by the DEA often was destined for other areas of the Midwest. The DEA's Chicago Field Division reported methamphetamine prices in the second half of 2014 ranging from \$10,000 to \$18,000 for a pound of "ice," which typically is smoked. In 2017, prices for a pound of ice methamphetamine had declined to \$6,000–\$10,000. Ounce prices for ice methamphetamine were \$750–\$1,600.

HEROIN

Heroin continued to be the primary opioid abused in the Chicago region, and heroin use indicators maintained levels that had been elevated since the mid-1990s. Whereas Chicago's heroin market was remarkably diverse in the 1990s–early 2000s, with heroin coming from Mexico, South America, and Southeast and Southwest Asia, today's market is dominated by heroin that originates in Mexico. In the multistate region served by the Chicago Field Division of the DEA, 98% of seized heroin by weight that was analyzed by their Heroin Signature Program (HSP) in 2014 through 2016 appears to have originated in Mexico. The majority of these heroin samples had traits that indicated the use of sophisticated processing techniques originally associated with high-quality heroin produced in South America. Heroin abuse indicators in this reporting period continued to suggest high levels of use in the Chicago area.

Heroin in Chicago is most often sold in a powdered form and is readily available in outdoor markets and through meetings arranged by phone. Heroin's availability for purchase seems to have increased in the suburbs. Tar heroin is available, although mostly in neighborhoods where residents are predominately of Mexican descent.

Although heroin fell from second to third among drugs reported by NFLIS as the most often seized and analyzed in the Chicago MSA, its presence as a proportion of all drugs seized changed little compared with 2016 (23% vs. 21%, respectively). There was a decrease between 2017 and 2016 in heroin seizures as a proportion of all drugs seized other than cannabis, from 36% to 31%. For further comparison, reports of heroin in 2011 as a proportion of all drugs other than marijuana was 36%.

The DEA's Chicago Field Division seized a record-high 517 kilograms of heroin in FY2016. In comparison, the DEA seized only 37 kilograms of heroin in 2005, 27 kilograms in FY2006, 40 kilograms in FY2007, and 79 kilograms in 2008. Since 2011, then, at least 194 kilograms have been seized each year, including 199 kilograms in FY2013 and 437 kilograms in FY2014 and 286 kilograms in 2015. The DEA reported that even though seizures of 20 kilograms or more were rising, this level of interruption no longer appeared to have a noticeable effect on heroin prices and quality at the retail level in Chicago.

During FY2017, heroin use was the most frequently reported reason for seeking addiction treatment in Chicago. Among these treatment episodes, the most common secondary substances reported were cocaine (26%, down from 43% in 2010) and alcohol (8%). The proportion of primary heroin treatment episodes in Chicago involving African Americans declined notably between FY2007 (82%) and FY2017 (67%), whereas the proportion of Whites increased from 9% to 22% during that period. The proportion reporting inhalation ("snorting") as the primary route of administration declined from 81% in FY2009 to

67% in FY2015 but rose to 74% in FY 2017. The proportion reporting injection as the primary route of administration has increased steadily from 14% in FY2007, to 17% in FY2009, to 19% in FY2010, to 21% in FY2012, and to 25% in FY2017. Research during this period indicated that injection was declining among African Americans and was perhaps increasing among Whites (Armstrong, 2007; Broz and Ouellet, 2008; Cooper et al., 2008; Tempalski et al., 2013), a trend that may account for some of this rise in injection prevalence among treatment episodes. Women constituted 41% of primary heroin treatment episodes, the highest for any drug/drug class covered in this report other than prescription opioids and benzodiazepines, and consistent with trends over at least the past decade. Cocaine was the secondary drug (26%) most often mentioned by heroin clients.

Heroin purity in Chicago at the retail level in 2016 was 12.3% according to the DEA's DMP. Heroin purity peaked in 1997, at about 31%, and then began a steady decline to 12.6% pure in 2006. Nevertheless, the average price per milligram pure was \$0.49 in 2006, which was among the lowest prices in CEWG cities nationally. Purity rebounded to 22.4% pure in 2007, 23.8% pure in 2008, and 26.6% pure in 2009. This change was accompanied by a decline in the average price to \$0.37 per milligram pure in 2008 and 2009. Purity then declined to 13.8% in 2011, 13.6% in 2012, 16.7% in 2013, 16.9% in 2014, and 10.5% in 2015. In 2012, the price per milligram pure was \$0.58 (the most recent date for which data are available).

Heroin was commonly sold on the street in \$10 and \$20 units (bags), although bags for as little as \$5 were available. The DEA reported kilogram price ranges for 2017 of \$45,000–\$60,000. Prices for an ounce of heroin in 2017 ranged from \$2,500 to \$3,500, while a gram ranged from \$50 to \$150. “Jabs” of heroin in 2017 continued to feature 12–13 “dime” bags for \$100. Ethnographic reports indicated that heroin was readily available in street markets, but there has been a steady increase in reports of sales arranged through the telephone with deliveries at prearranged public locations or the buyer's home.

The YRBS reported lifetime use of heroin among Chicago public high-school students at 3.7% (CI = 0.9–4.4) in 2007, compared with 4.7% (CI = 3.0–7.2) in 2009, 3.9% (CI = 2.9–5.2) in 2011, 4.1% (CI = 2.6–6.5) in 2013, and 4.9% (CI = 3.0–7.9) in 2017. Males were significantly more likely to report ever using heroin than were female students (5.1% vs. 2.2%, $p = .01$). For Illinois students as a whole in 2017, 3.4% (CI = 2.5–4.6) reported ever using heroin, the same proportion as reported in 2015 and within the range reported since 2007.

A substantial problem with heroin use began in the 1990s across many of Chicago's suburbs. In local studies conducted of people 30 years of age and younger who injected drugs, almost all of whom primarily injected heroin, the proportion residing in the suburbs has risen. These proportions increased from negligible levels in the early 1990s to 30%–50% in the late 1990s-to-mid-2000s (Boodram, Golub, & Ouellet, 2010; Thorpe, Bailey, Huo, Monterroso, & Ouellet, 2001) and to 75% in the late 2000s (Mackesy-Amity, Donenberg, & Ouellet, 2012).

As another indicator of increasing heroin use in Chicago's suburbs, the number of heroin purchases in relatively affluent DuPage County west of Chicago, made by their Metropolitan Enforcement Group in 2011, was more than 3 times greater than in 2008 (59 in 2011 compared with 16 in 2008), and the amount of heroin seized was more than 16 times greater in 2011 (1,835 grams). The continuing high

levels of heroin use by DuPage residents has resulted in the development of a specialty court for first-time opioid drug offenders that is scheduled to open in July 2018.

Opioid-related overdoses killed 1,946 people in Illinois in 2016, which was an 82% increase compared with 2013 (<http://dph.illinois.gov/opioids/home#publications-publications-multiple-opioids-pages-2>). The majority of these overdoses occurred in the Chicago metropolitan area. The Chicago Department of Public Health reported 1,081 opioid-related deaths in Cook County in 2016, of which 741 were in Chicago. Opioid-related overdose death rates per 100,000 population in Chicago increased from 15.5 in 2015 to 26.8 in 2016. Death rates during this period increased from 12.4 to 17.7 for heroin-related overdoses, and from 2.7 to 15.1 for fentanyl (although the medical examiner did test for fentanyl before 2015, the practice was not routinized until June 2015). For suburban Cook County, the death rate per 100,000 residents for heroin-related overdoses increased between 2015 and 2016 from 6.2 to 8.5, and from 1.3 to 5.7 for fentanyl. Opioid-related death rates per 100,000 residents in Chicago were highest for African Americans (39.3), men (40.8 vs. 13.3 for women), and persons 45–54 years old (67.6). In suburban Cook County, the death rate was highest for Whites (19.9), men (20.5 vs. 7.2 for women), and persons 25–34 years old (30.7). Among opioid-related overdose deaths in Chicago in 2016, 66% involved heroin, 57% involved fentanyl, and 5% involved a prescription opioid (excluding methadone). Among opioid-related overdose deaths in suburban Cook County in 2016, 61% involved heroin, 41% involved fentanyl, and 19% involved a prescription opioid (excluding methadone). The numbers of opioid-related and fentanyl-related overdose deaths in Chicago are greatest in west side neighborhoods where the city's most robust street drug markets exist.

Opioid-related overdose deaths in DuPage County increased from 29 in 2010 to 51 in 2015, to 95 in both 2016 and 2017. Heroin was associated with most of these deaths, but increasingly the heroin was in combination with fentanyl: 7 cases in 2015, 26 cases in 2016, and 32 cases in 2017. DuPage County now has a public information website titled “Heroin DuPage” (<http://www.heroindupage.org/>), and in September 2013, officials established the DuPage Narcan Program to equip and train law enforcement officers in the administration of Narcan® (naloxone), a safe, nonaddictive, and effective treatment for reversing opioid overdoses. Cases of naloxone administration in DuPage County that likely saved the recipient's life have risen from 32 in 2014, to 62 in 2015, to 145 in 2016, and to 175 in 2017.

In Will County, which includes suburbs south and southwest of Chicago, heroin/fentanyl-related overdose deaths reported by the Coroner's Office increased from 6 in 1999, to 30 in 2011, and to 53 in 2012. Deaths then decreased to 38 in 2013 and to 35 in 2014 before rebounding to 71 in 2015, 86 in 2016, and 85 in 2017. Again, decedents in Will County often may have believed they were injecting heroin alone, but fentanyl was present in 12 cases (17%) in 2015 (6 without heroin), 37 cases (43%) in 2016 (18 without heroin), and 54 cases (63%) in 2017 (25 without heroin). Of the heroin/fentanyl-related overdose deaths in 2017, 44% also involved alcohol, cocaine, or alprazolam. Persons younger than 30 years old constituted 49% of the decedents in 2014, 40% in 2015, 37% in 2016, and 29% in 2017, which suggests that fewer young people in Will County may be using heroin. Decedents in 2017 ranged in age from 18 to 67 years old, and 72% were male (<http://www.willcountyillinois.com/County-Offices/Judicial-Services/Coroner>).

PRESCRIPTION OPIOIDS

Hydrocodone is the most commonly used prescription opioid in the Chicago MSA. The local state police forensic lab reports that Vicodin®, a popular form of hydrocodone, is among the numerous prescription drugs increasingly being counterfeited and sometimes containing fentanyl.

Drug treatment episodes for opioids other than heroin and methadone as the primary drug of abuse rose from 0.001% of all treatment episodes in FY2007 to 0.6% in FY2011 and continued rising each year to 1.1% in FY2015 before leveling at 0.9% in FY2017. Females constituted 54% of admissions in FY2017, and 64% of clients were White. Clients 26–44 years old constituted the largest age group (64%) in FY2017, and only 6% were younger than 25 years old. Oral ingestion was reported as the primary route of administration by 76% of clients, while 15% reported snorting and 7% injecting these drugs. The most common secondary substances were alcohol (16%), cocaine/crack (10%), and benzodiazepines (8%).

Of the top 25 psychoactive drugs identified in NFLIS reports among drug items seized and analyzed by laboratories in 2017, five were prescription opioids (down from six in 2016): hydrocodone ($n = 522$), oxycodone ($n = 174$), tramadol ($n = 130$), codeine ($n = 128$), and methadone ($n = 82$). The number of reports of hydrocodone has declined somewhat compared with 2016 ($n = 560$) and 2015 ($n = 650$).

In 2017, the YRBS asked students whether they ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it. Among Chicago high-school students, 15.0% (CI = 12.2–18.4) reported ever having done so. Male students (15.9%) compared with female students (13.5%) were more likely to have ever used prescription pain medication in this manner, but the difference was not statistically significant. For Illinois students as a whole in 2017, 14.1% (CI = 12.0–16.6) reported ever using such drugs

FENTANYL AND OTHER NONPRESCRIPTION SYNTHETIC OPIOIDS

There were 2,364 reports of fentanyl or fentanyl analogs by NFLIS for 2017, which was a large increase from the 1,301 reports for 2016, and far above the 44 reports for 2015 and 21 reports in 2014. Of the reports in 2017, 2,138 were fentanyl, 121 were furanyl fentanyl, 84 were acrylfentanyl, 14 were carfentanil, 4 were acetyl fentanyl, 2 were cyclopropyl fentanyl, and 1 was butyryl fentanyl. The local state police forensic lab reported that fentanyl was present in a variety of drugs sold as prescription medications, including Vicodin®, OxyContin®, Tramadol®, and Xanax®.

Current ethnographic data indicated that many heroin users are aware of the overdose risks associated with fentanyl. Many heroin users employ tactics they believe will reduce the likelihood that the heroin they purchase will include fentanyl, most often by purchasing from a dealer they trust. It appears that only a minority of heroin sellers promote sales by informing purchasers that the product contains fentanyl. Ethnographic reports, however, indicate that some drug-selling groups in an area with a disproportionately high number of fatal overdoses verbally advertise that they are selling fentanyl.

Those who inject heroin often believe that they can identify the presence of fentanyl by the color of the solution once they heat the drug in preparation for injection, but the colors cited by users vary. They also often report that they can tell when they have injected fentanyl because it has both a better “rush” and has “shorter legs” than heroin; that is, the high is more intense and time between injection and

withdrawal symptoms is shorter with fentanyl than with heroin. For this reason, some users suggest that mixing heroin and fentanyl makes sense in that the combination will provide a better initial “high” than heroin alone and its effects will last longer than fentanyl alone.

An examination of fatal opioid-related overdoses in Cook County that excluded cases with incomplete records found that fentanyl was present in 52% of fatal overdoses in 2016 and in 58% in 2017. Additional mortality data involving fentanyl for Cook County, DuPage County and Will County are presented in the earlier section that addresses heroin trends.

Other Priority Substances in Chicago

BENZODIAZEPINES

Treatment episodes in Chicago for primary benzodiazepine rose from near nonexistent (14 cases in more than 67,000 treatment episodes) in FY2007 to 64 cases among 28,359 reported episodes in FY2016 and 45 cases among 17,207 reported episodes in FY2017, according to the Illinois Division of Substance Use Prevention and Recovery (SUPR). Women (53%) and Whites (58%) constituted the majority of admissions for benzodiazepines. Reports of alprazolam in the National Forensic Laboratory Information System (NFLIS) for metropolitan Chicago increased annually from 419 in 2011 to 1,454 in 2015 and then leveled at 1,453 in 2016 and 1,500 in 2017. Among all NFLIS drugs reports for this area, alprazolam ranks fifth. As a proportion of all NFLIS drug items other than cannabis, which has been in a steep decline as a result of changes in policy and enforcement, alprazolam rose to 5.5% in 2016, which was up from 1.1% in 2010, and remained at near that level in 2017 (4.9%). Ethnographic reports indicated alprazolam was the benzodiazepine most often used by persons who used heroin or cocaine. The local state police forensic lab reports that Xanax® is among the prescription drugs increasingly being counterfeited and sometimes containing fentanyl.

MARIJUANA

Marijuana continued to be the most widely available and used illicit drug in Chicago and across the state of Illinois. Marijuana users represented 12% of treatment episodes in FY2017, which was down from 16% in FY2016 and 24% in FY2015. This trend likely reflects the reductions in arrests for marijuana possession and, in turn, reductions in court-mandated drug treatment for the drug. Alcohol remained the most commonly reported secondary drug among clients receiving treatment for marijuana at 23%, albeit 63% reported no secondary drug problems. There were larger proportions of primary marijuana treatment episodes for males (78%) than for females and for African Americans (69%) than for other ethnicities.

According to the DEA, the bulk of marijuana shipments were transported by Mexico-based polydrug trafficking organizations. The primary wholesalers of marijuana were the same Mexico-based organizations that supplied most of the cocaine, methamphetamine, and heroin in the Midwest. In addition, cannabis was also brought from the West Coast, Canada, and states where cannabis is legal.

According to the DEA's Chicago Field Division, the price for 1 pound of marijuana in CY2017 generally ranged from \$1,800 to \$2,400 for domestically grown and from \$500 to \$3,000 for Mexican sourced, depending on quality. On the street, marijuana was most often sold in bags for \$5–\$35 or as blunts (cigars).

There were more NFLIS reports for marijuana ($n = 11,549$) than for any other drug in the Chicago metropolitan statistical area (MSA) in 2017, but this number has declined steeply since 2011 ($n = 41,165$). Whereas marijuana constituted 57.0% of all NFLIS drug reports in 2011, that proportion fell to 40.8% in 2016 and 28% in 2017.

According to the YRBS, self-reported lifetime use of marijuana among Chicago high-school students was 49.3% in 2001 and then declined in each survey through 2009 (41.0%), before increasing to 42.6% in 2011 and 50.0% (CI = 45.7–54.3) in 2013. Lifetime use of marijuana declined in 2017 to 43.8% (CI=39.7–48.0; 2015 data for Chicago are unavailable) and is within the range reported since 1997. In 2017, male students were somewhat more likely to report lifetime use than were female students (46.7% and 40.3%, respectively), but the difference was not statistically significant. Use of marijuana in the past 30 days was reported by 24.7% (CI = 21.6–28.0) of Chicago high-school students, which is within the range reported since 1999. For Illinois as a whole, 34.2% (CI = 30–38.5) of students reported ever using marijuana, the lowest level since 1993. Lifetime use was reported by 39% (CI = 34.1–46.0) of African American students, 46.2% (CI = 40.9–51.6) of Hispanic students, and 30.4% (CI = 25.9–35.3) of White students. Use of marijuana in the past 30 days among Illinois high-school students (20.8%, CI=17.3–24.8) remains within the range reported since 1995. The extent to which synthetic cannabinoids may have influenced these trends is not discernable from the YRBS data.

PCP

The number of PCP (phencyclidine) reports among NFLIS drug items for the Chicago MSA increased each year between 2007 and 2015, despite declines in the number of all drug items tested. There were 585 PCP reports in 2015 compared with 115 reports in 2007. In 2016, however, there were 421 reports, and in 2017, there were 477 reports. As a proportion of all drug reports, PCP increased from 0.16% in 2007 to around 1.0% from 2015 to 2017, and it currently ranks as the ninth most common drug among those analyzed.

SYNTHETIC CATHINONES

Substituted cathinones (“bath salts”) rebounded in NFLIS reports in 2017 with 421 seizures, compared with 161 reports in 2016 and 317 reports in 2015. Reports for 2017 are, however, fewer than in earlier years: 575 reports in 2014, 487 reports in 2013, and 525 reports in 2012.

The types of substituted cathinones have increased since 2015. NFLIS identified 14 different substituted cathinones in 2017 and 16 in 2016, compared with 5 in 2015 and 10 in 2014. The most common substituted cathinone in 2017 was N-ethylpentylone (350 mentions, representing 83% of all drugs of this class). There were no mentions in NFLIS of dibutylone in 2014, 2 mentions in 2015, and 23 mentions in 2016. Dibutylone, ethylone, and alpha-PVP, which were the drugs most often seized among substituted

cathinones in 2016, 2015, and 2014, respectively, together comprised only 5% of this drug category in 2017.

SYNTHETIC CANNABINOIDS

The Illinois Department of Public Health documented 164 cases of severe bleeding, including four deaths, after recent use of synthetic cannabinoid (<http://www.dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis/synthetic-cannabinoids>). The CDC tested 81 clinical specimen from 81 patients, and in all cases detected the presence of brodifacoum, a long-acting vitamin K antagonist (an anti-coagulant) used in rodenticides (<https://www.cdc.gov/mmwr/volumes/67/wr/mm6721a4.htm>). Law enforcement agencies are investigating this outbreak, and at this point, the reason for brodifacoum's presence in these packets of synthetic cannabinoids is unknown. One representative from a federal agency suggested that inadvertent contamination may have occurred when someone sprayed brodifacoum to get rid of rodents at the site where the plant material used in making the product was kept.

There were 241 NFLIS reports of compounds designed to mimic marijuana (cannabinoids) in 2017 and 204 reports in 2016. In comparison, there were 336 reports in 2015, 227 reports in 2014, 281 in 2013, and 361 in 2012, which suggests overall decline in synthetic cannabinoids but a recent leveling in their presence. Only nine synthetic cannabinoids were identified in 2017, compared with 15 in 2016, 23 in 2015, and 20 in 2014. The two most common synthetic cannabinoids reported in NFLIS 2016 and 2017 were FUB-AMB and AB-FUBINACA. FUB-AMB, however, dominated the category in 2017 (70%), which was well above its presence in 2016 (38%).

The sale of these drugs was banned in Chicago beginning January 1, 2012, and it can now result in a \$1,000 fine and the loss of a business license. In July 2012, Illinois designated some of these cannabinoid-mimicking drugs as Schedule I controlled substances.

PIPERAZINES

In 2013 and 2014 each, there were 601 NFLIS reports for the Chicago MSA of piperazines involving two drugs: BZP (n-benzylpiperazine) and TFMPP (1-(3-trifluoromethyl)phenyl-piperazine)). BZP was the most common piperazine in both years ($n = 584$ and 574 , respectively). In 2015, these drugs again were the only piperazines reported, but the total of 94 reports for BZP and 203 reports for TFMPP suggest both an overall decline in use of these substances and a substantial move away from BZP and toward TFMPP. This decline continued in 2016 with only 68 reports, of which 53 were for TFMPP, 10 for BZP, and 5 for pFPP (4-fluorophenylpiperazine). In 2017, there were 93 reports of piperazines, of which 51 were for TFMPP, 33 for pFPP (4-fluorophenylpiperazine), and 9 for BZP.

TRYPTAMINES

In 2017 there were only eight reports of tryptamines in NFLIS for the Chicago MSA, which was a level well below the 24 reports in 2016, 63 reports in 2015, and 57 reports for 2014.

In 2015, DMT (dimethyltryptamine) replaced 5-MEO-DIPT (5-methoxy-n,n-diisopropyltryptamine), sometimes called "foxy methoxy," as the most common tryptamine (52% and 41% of all tryptamines,

respectively). In 2016, DMT comprised 83% of all tryptamines identified by NFLIS, and in 2017, all eight reports were DMT.

PHENETHYLAMINES (2C SERIES) (H)

In 2014, there were 73 reports of phenethylamines (2C Series) (H), a substituted phenethylamine with hallucinogenic effects. In 2015, there were 57 of these reports involving four drugs: 25-I-NBOME (2-(4-iodo-2,5-dimethoxyphenyl)-n-(2-methoxybenzyl)ethanamine ($n = 34$); 2C-C-NBOME (2-(4-chloro-2,5-dimethoxyphenyl)-n-(2-methoxybenzyl)ethanamine) ($n = 15$); 25-B-NBOME 2-(4-bromo-2,5-dimethoxyphenyl)-n-(2-methoxybenzyl)ethanamine ($n = 4$); and 2C-B (4-bromo-2,5-dimethoxyphenethylamine) ($n = 4$). In 2016, there were only 26 of these reports involving three drugs: 25-I-NBOME ($n = 16$); 25-C-NBOME (2-(4-chloro-2,5-dimethoxyphenyl)-n-(2-methoxybenzyl)ethanamine) ($n = 5$); and 2C-B ($n = 5$). In 2017, there were only 19 reports involving four drugs: 25C-NBOME (2-(4-chloro-2,5-dimethoxyphenyl)-n-(2-methoxybenzyl)ethanamine ($n = 7$); 25-I-NBOME (2-(4-iodo-2,5-dimethoxyphenyl)-n-(2-methoxybenzyl)ethanamine ($n = 7$); 2C-B (4-bromo-2,5-dimethoxyphenethylamine) ($n = 3$); and BK-2C-B (bk-4-bromo-2,5-dimethoxyphenethylamine; 2-amino-1-(4-bromo-2,5-dimethoxyphenyl)ethanone) ($n = 2$).

New Substance-Related Legislative and Policy Updates

Illinois pharmacists with a standing order from a physician can dispense naloxone, a drug used to reverse opioid overdoses, without requiring individualized prescriptions to the following persons: (a) those in a position to assist a person at risk of overdose, (b) trained first-responders, (c) individuals at risk of overdose, and (d) trained school nurses. The state legislature enacted this bill, Illinois PA99-0480, in September 2015 with the expressed intent of reducing death by opioid overdose. Pharmacists who wish to dispense naloxone first need to complete the online Illinois State Opioid Antagonist Training Program. Illinois legalized the medical use of marijuana in late 2013 through a pilot program that was among the strictest in the country. In September 2014, the Illinois Department of Public Health began accepting applications from potential patients. Illinois currently recognizes 39 qualifying medical conditions. The sale of medical marijuana to qualifying patients and caregivers began on November 9, 2015. As of July 11, 2017, the Illinois Department of Public Health (IDPH) has approved 21,800 applications from qualifying patients. (<https://www.illinois.gov/gov/mcpp/Pages/update07112017.aspx>). Approximately 25,300 individuals have submitted a complete application to IDPH.

An Illinois state bill enacted on July 29, 2016 that decriminalized possession of small amounts of marijuana also set standards to define driving under the influence of marijuana, which is now defined as 5 or more nanograms of THC in blood or 10 or more nanograms of THC in saliva.

Illinois also enacted the Bath Salts Prohibition Bill, which will go into effect January 1, 2017. The bill bans the sale of “any synthetic or natural material containing any quantity of a cathinone chemical structure, including any analogs, salts, isomers, or salts of isomers of any synthetic or natural material containing a

cathinone chemical structure.” Violators are subject to charges of a Class-3 felony, loss of their retail license, and a maximum fine of \$150,000. The legislation went into effect January 1, 2018.

Local Research Highlights

A recent study examined associations between geographic mobility patterns and sociodemographic, behavioral, and social network characteristics of 164 young (ages 18–30) persons who inject drugs (PWID) and reside in metropolitan Chicago. The researchers identified a potential bridge subpopulation that reported residence in both urban and suburban areas in the past year (crossover transients) and higher risk behaviors (receptive syringe sharing, multiple sex partners) compared with their residentially localized counterparts. Because crossover transients link suburban and urban networks, this group may facilitate transmission of HIV and HCV between higher and lower prevalence areas of metropolitan Chicago. The authors suggested that interventions should address risk associated with residential instability, particularly among PWID who travel between urban and suburban areas (Boodram et al., 2018).

Infectious Diseases Related to Substance Use

New HIV diagnoses in Chicago declined for the 15th consecutive year in 2016 (Chicago Department of Public Health, 2017). The 839 new HIV diagnoses in 2016 represented a 55% reduction since 2001 (Chicago Department of Public Health, 2017). Injection drug use was the primary risk factor in only 5% of new HIV diagnoses in 2016, which was down from 9% in 2010 and 19% in 2001. Another 2.7% of cases reported both injection drug use and male-to-male sexual contact, and the number of these cases has remained steady since 2010. Male-to-male sexual contact was the primary risk factor for 72% of all new HIV diagnoses overall and for 88% of cases among men. Persons 20–29 years old constituted the age group most likely to be newly diagnosed with HIV in 2014. Of the people living with HIV in Chicago, approximately 60% received HIV medical care in 2016, 40% were retained in care, and 48% achieved viral suppression (Chicago Department of Public Health, 2017).

Robust data on new diagnoses of viral hepatitis in Chicago were not available. Among 42 states reporting the rate of new HCV infections in 2016, which primarily is driven by illicit drug injection, Illinois was one of eight states that met the *Healthy People* 2020 national goal of less than 0.25 per 100,000 residents.

Treatment Tables

Table 1: Trends in Admissions* to Programs Treating Substance Use Disorders, Chicago^ Residents, Fiscal Year 2016-2017**
Number of Admissions and Percentage of Admissions with Selected Substances Cited as Primary Substance at Admission, by Year and Substance

	Fiscal Year									
	2013		2014		2015		2016		2017	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	unavail	unavail	unavail	unavail	unavail	unavail	28,379	100%	17,208	100%
Primary Substance of Abuse (%)										
Alcohol	unavail	unavail	unavail	unavail	unavail	unavail	5,343	18.8%	3,168	18.4%
Cocaine/Crack	unavail	unavail	unavail	unavail	unavail	unavail	2,262	8.0%	1,205	7.0%
Heroin	unavail	unavail	unavail	unavail	unavail	unavail	15,671	55.2%	10,464	60.8%
Prescription Opioids***	unavail	unavail	unavail	unavail	unavail	unavail	299	1.1%	147	0.9%
Methamphetamine	unavail	unavail	unavail	unavail	unavail	unavail	64	0.2%	58	0.3%
Marijuana	unavail	unavail	unavail	unavail	unavail	unavail	4,640	16.4%	2,116	12.3%
Benzodiazepines	unavail	unavail	unavail	unavail	unavail	unavail	74	0.3%	45	0.3%
MDMA	unavail	unavail	unavail	unavail	unavail	unavail	nr	nr	nr	nr
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	6	<0.1%	4	<0.1%
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	nr	nr	nr	nr
Other Drugs/Unknown	unavail	unavail	unavail	unavail	unavail	unavail	nr	nr	nr	nr

NOTES:

^Chicago: Includes data for Chicago not the entire Chicago MSA.

***Admissions:** Includes admissions to publicly funded programs. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period. Data on services reimbursed by Medicaid Managed Care Organizations (MCOs) are not reported to IDHS/SUPR and, therefore, the admissions and other service information are not included in the SUPR data. It should be noted that beginning in State Fiscal Year 2016, an increasing number of Illinois Medicaid patients belonged to a Managed Care Organization (MCO) and did not have MCO-reimbursed substance use disorder treatment service data reported to SUPR.

†Fiscal Year (FY): Calendar Year (CY) data are not available for this site so fiscal year data are presented. Please note that treatment data presented for other NDEWS SCSs represent calendar year data.

****Prescription Opioids:** Includes oxycodone/hydrocodone, non-prescription methadone, and other opiates.

unavail: Data not available; nr=Data not reported.

SOURCE: Data provided to the Chicago Metro NDEWS SCE by Illinois Department of Human Services, Division of Substance Use Prevention and Recovery (SUPR, formerly the Division of Alcohol and Substance Use).

Table 2: Demographic and Drug Use Characteristics of Treatment Admissions* for Select Primary Substances, Chicago^ Residents, Fiscal Year 2017**
Number and Percentage of Admissions, by Primary Substance with Selected Demographic and Drug Use Characteristics

	Primary Substance																	
	Alcohol		Cocaine/Crack		Heroin		Prescription Opioids***		Methamphetamine		Marijuana		Benzo-diazepines		Synthetic Stimulants		Synthetic Cannabinoids	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Number of Admissions (#)	3,168	100%	1,205	100%	10,464	100%	147	100%	58	100%	2,116	100%	45	100%	4	100%	1	100%
Sex (%)																		
Male	2,217	70.0%	783	65.0%	6178	59.0%	68	46.3%	43	74.1%	1646	77.8%	21	46.7%	4	100.0%	nr	nr
Female	951	30.0%	422	35.0%	4286	41.0%	79	53.7%	15	25.9%	470	22.2%	24	53.3%	0	0.0%	nr	nr
Race (%)																		
White, Non-Hisp.	888	28.0%	189	15.7%	2257	21.6%	95	64.6%	32	55.2%	210	9.9%	26	57.8%	1	25.0%	nr	nr
African-Am/Black, Non-Hisp	1,498	47.3%	843	70.0%	6976	66.7%	44	29.9%	10	17.2%	1449	68.5%	8	17.8%	1	25.0%	nr	nr
Asian/Pacific Islander	25	0.8%	5	0.4%	10	0.1%	0	0.0%	8	13.8%	10	0.5%	1	2.2%	0	0.0%	nr	nr
Other	757	23.9%	168	13.9%	1221	11.7%	8	5.4%	8	13.8%	447	21.1%	10	22.2%	2	50.0%	nr	nr
Ethnicity (%)																		
Hispanic/Latino	819	25.9%	172	14.3%	1311	12.5%	14	9.5%	7	12.1%	479	22.6%	15	33.3%	2	50.0%	nr	nr
Age Group (%)																		
Under 18	10	0.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	310	14.7%	4	8.9%	0	0.0%	nr	nr
18-24	182	5.7%	38	3.2%	187	1.8%	9	6.1%	5	8.6%	840	39.7%	16	35.6%	3	75.0%	nr	nr
25-44	1,479	46.7%	385	32.0%	3234	30.9%	94	63.9%	43	74.1%	845	39.9%	18	40.0%	0	0.0%	nr	nr
45+	1,497	47.3%	782	64.9%	7043	67.3%	44	29.9%	10	17.2%	121	5.7%	7	15.6%	1	25.0%	nr	nr
Route of Administration (%)																		
Smoked	3,153	99.5%	975	80.9%	129	1.2%	4	2.7%	24	41.4%	2013	95.1%	1	2.2%	2	50.0%	nr	nr
Inhaled	10	0.3%	196	16.3%	7686	73.5%	22	15.0%	2	3.4%	20	0.9%	1	2.2%	0	0.0%	nr	nr
Injected	3	0.1%	13	1.1%	2568	24.5%	10	6.8%	24	41.4%	5	0.2%	1	2.2%	1	25.0%	nr	nr
Oral/Other/Unknown	2	0.1%	18	1.5%	81	0.8%	111	75.5%	8	13.8%	78	3.7%	42	93.3%	1	25.0%	nr	nr
Secondary Substance (%)																		
None	1,737	54.8%	444	36.8%	5531	52.9%	74	50.3%	27	46.6%	1336	63.1%	14	31.1%	2	50.0%	nr	nr
Alcohol	0	0.0%	371	30.8%	789	7.5%	23	15.6%	3	5.2%	483	22.8%	7	15.6%	0	0.0%	nr	nr
Cocaine/Crack	573	18.1%	0	0.0%	2,668	25.5%	15	10.2%	2	3.4%	114	5.4%	1	2.2%	0	0.0%	nr	nr
Heroin	128	4.0%	131	10.9%	0	0.0%	3	2.0%	3	5.2%	20	0.9%	4	8.9%	0	0.0%	nr	nr
Prescription Opioids***	17	0.5%	6	0.5%	42	0.4%	0	0.0%	0	0.0%	8	0.4%	2	4.4%	0	0.0%	nr	nr
Methamphetamine	9	0.3%	4	0.3%	10	0.1%	0	0.0%	0	0.0%	1	0.0%	2	4.4%	0	0.0%	nr	nr
Marijuana	545	17.2%	184	15.3%	487	4.7%	9	6.1%	10	17.2%	0	0.0%	14	31.1%	2	50.0%	nr	nr
Benzodiazepines	16	0.5%	6	0.5%	48	0.5%	12	8.2%	0	0.0%	22	1.0%	0	0.0%	0	0.0%	nr	nr
Synthetic Stimulants	7	0.2%	0	0.0%	8	0.1%	0	0.0%	0	0.0%	4	0.2%	0	0.0%	0	0.0%	nr	nr
Synthetic Cannabinoids	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr

NOTES:
^Chicago: Includes data for Chicago not the entire Chicago MSA.
*Admissions: Includes admissions to publicly funded programs. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period. Data on services reimbursed by Medicaid Managed Care Organizations (MCOs) are not reported to IDHS/SUPR and, therefore, the admissions and other service information are not included in the SUPR data. It should be noted that beginning in State Fiscal Year 2016, an increasing number of Illinois Medicaid patients belonged to a Managed Care Organization (MCO) and did not have MCO-reimbursed substance use disorder treatment service data reported to SUPR.
**Fiscal Year (FY) 2017: Please note that treatment data presented for other NDEWS SCSs represent calendar year data.
***Prescription Opioids: Includes oxycodone/hydrocodone, non-prescription methadone, and other opioids.
unavail: Data not available; nr: Data not reported; Percentages may not sum to 100 due to missing data, rounding, and/or because not all possible categories are presented in the table. Category frequencies may not sum to drug total due to missing data and/or not all possible categories are presented in the table.

SOURCE: Data provided to the Chicago Metro NDEWS SCE by Illinois Department of Human Services, Division of Substance Use Prevention and Recovery (SUPR, formerly the Division of Alcohol and Substance Use).

Sources

DATA FOR THIS REPORT WERE DRAWN FROM THE FOLLOWING SOURCES:

Treatment admission episode data for Chicago for fiscal year (FY) 2017 (July 1–June 30) were provided by the Illinois Department of Human Services, Division of Substance Use Prevention and Recovery (SUPR; formerly the Division of Alcoholism and Substance Abuse). Recent changes in drug treatment episodes should be understood within the context of major changes in some systems involved in financing and managing drug treatment. Data on services reimbursed by Medicaid Managed Care Organizations (MCOs) are not reported to IDHS/SUPR, and therefore, the admissions and other service information are not included in the SUPR data. It should be noted that beginning in State Fiscal Year 2016, an increasing number of Illinois Medicaid patients belonged to a Managed Care Organization (MCO) and did not have MCO-reimbursed substance use disorder treatment service data reported to SUPR.

Data on **drug reports among items seized and analyzed** in forensic laboratories are from the Drug Enforcement Administration (DEA)'s National Forensic Laboratory Information System (NFLIS). Data are for the Chicago-Naperville-Michigan City, IL-IN-WI MSA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis. The data presented are a combined count including primary, secondary, and tertiary reports for each drug for calendar years (CYs) 2009–2017. Data for 2017 are preliminary and are subject to change. In 2014, the definition of the MSA changed slightly. The city of Joliet was dropped. All other jurisdictions remained the same. Because there have been steep declines in seizures of cannabis in recent years as a result of changes in judicial and enforcement practices, this report sometimes represents trends in seizures of individual drugs (e.g., heroin) as a proportion of all drugs seized *other than cannabis*.

Drug seizure data came from the DEA's Chicago Field Division, which comprises the states of Indiana, Minnesota, North Dakota, Wisconsin, and the Northern and Central Federal Judicial Districts of Illinois. (See: *The Opioid Threat in the Chicago Field Division*, June 2017, publication no. DEA-CHI-DIR-023-17, <https://www.dea.gov/sites/default/files/2018-07/DEA-CHI-DIR-023-17%20The%20Opioid%20Threat%20in%20the%20Chicago%20FD.pdf>)

Drug-related mortality data on deaths were obtained from the following sources:

- Chicago Department of Public Health. *Epidemiology report: Increase in overdose deaths involving opioids – Chicago, 2015-2016*. October 2017, https://www.cityofchicago.org/content/dam/city/depts/cdph/tobacco_alcohol_and_drug_abuse/2016_JtCookCountyChgo_OpioidBrief_Jan302018.pdf

- Cook County Medical Examiner’s Office, Chicago Department of Public Health (*Epidemiology report: Increase in overdose deaths involving opioids – Chicago, 2015-2016*, http://www.cityofchicago.org/content/dam/city/depts/cdph/tobacco_alcohol_and_drug_abuse/2016ChicagoOpioidReport.pdf) and (*Opioid-related overdose deaths in Cook County, IL, 2016 January 2018*, https://www.cityofchicago.org/content/dam/city/depts/cdph/tobacco_alcohol_and_drug_abuse/2016_JtCookCountyChgo_OpioidBrief_Jan302018.pdf)
- DuPage County Coroner’s Office, https://www.dupageco.org/Coroner/Coroner_News/2018/56796/
- Naperville Sun, <http://www.chicagotribune.com/suburbs/naperville-sun/crime/ct-nvs-dupage-county-opioid-2017-statistics-st-0126-20180125-story.html>
- Will County Coroner’s Office, <http://www.willcountyillinois.com/County-Offices/Judicial-Services/Coroner/2017-Overdose-Statistics>

Data regarding **trends in fentanyl-related overdoses** in Cook County between 2015 and 2017 were obtained from Juan Wantig as part of his unpublished work in completion of a Master’s of Public Health degree at the University of Illinois at Chicago, School of Public Health, Division of Epidemiology and Biostatistics, titled: “Opioid related overdoses in Chicago: Fentanyl takes over,” presented May 2018

Price and purity data for heroin were provided by the DEA’s Heroin Domestic Monitor Program (HDMP) for 2001–2016. Report updates sometimes result in outcome changes for past years. Drug price data also are reported from the February 2010 report of National Illicit Drug Prices by the National Drug Intelligence Center (NDIC) and from HDMP and the local Trends in Trafficking report from the DEA. Ethnographic data on drug availability, prices, and purity are from observations conducted by the Community Outreach Intervention Projects (COIP), School of Public Health, University of Illinois at Chicago (UIC).

Student drug use prevalence data were derived from the Youth Risk Behavior Survey (YRBS), prepared by the Centers for Disease Control and Prevention (CDC). The YRBS provided drug use data representative of students in Chicago public high schools and of Illinois public high-school students for 2017. YRBS data in 2015 were available only for Illinois students as a whole.

Additional **synthetic cannabinoid–associated coagulopathy** in Illinois data are from:

Kelkar, A. H., Smith, N. A., Martial, A., Moole, H., Tarantino, M. D., & Roberts, J. C. (2018). An outbreak of synthetic cannabinoid–associated coagulopathy in Illinois. *New England Journal of Medicine*, 379, 1216-1223.

Infectious disease data are from:

- Centers for Disease Control and Prevention. *Viral Hepatitis Surveillance United States, 2016*, <https://www.cdc.gov/hepatitis/statistics/2016surveillance/pdfs/2016HepSurveillanceRpt.pdf> Accessed 6-12-2018.

- Chicago Department of Public Health. *STD/HIV/AIDS Surveillance Report*. Winter 2006. Chicago, IL: City of Chicago, http://www.aidschicago.org/resources/legacy/pdf/2006/fact_cdph_winter.pdf
- Chicago Department of Public Health. *HIV/STI Surveillance Report*, December 2015. Chicago, IL: City of Chicago, December 2015, http://www.cityofchicago.org/content/dam/city/depts/cdph/HIV_STI/HIV_STISurveillanceReport2015_revised.pdf
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Injecting drug use data are from:

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