Wayne County (Detroit Area) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018

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National Drug Early Warning System (NDEWS) Wayne County (Detroit Area) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018

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Highlights

- **Fentanyl** and **carfentanil** continue to be the primary drugs of concern in Wayne County. Fentanyl caused the majority of drug overdose deaths and carfentanil contributed to the spike in drug overdose deaths that peaked in January 2017. Fentanyl seizures climbed to fourth among controlled substances in 2017 compared with seventh in 2016. However, slightly less fentanyl was seized locally (3.0%) than nationally (3.9%). Carfentanil was seized and identified slightly more than expected based on national estimates (0.6% compared with 0.4%).

- **Heroin** continues to be an important drug of concern in Wayne County as measured by number of deaths, most common primary drug for treatments admissions, and number of seizures.

- **Cocaine** continues to be a major drug of concern due to number of drug overdose deaths, seizures, and as a primary, secondary, or tertiary drug of abuse in treatment admissions.

- **Methamphetamine** accounts for fewer treatment admissions or deaths than other drugs of abuse but is increasingly identified in seizures albeit at low levels.

- **Prescription opioids,** excluding **fentanyl and carfentanil,** are found in fewer drug overdose deaths and not as a primary drug of abuse for treatment admissions or in law enforcement seizures. Michigan's prescription drug monitoring program documented for the state and the county a decreasing number of prescriptions dispensed for total scheduled medications. Data from the DEA's Automation of Reports and Consolidated Orders System (ARCOS) showed few changes in Michigan's ranking for wholesale distribution of different opioids with codeine continuing to be ranked second and hydrocodone third nationally without correction for population. Codeine was seized and identified more than expected based on national estimates (0.4% compared with 0.2%) as was hydrocodone (2.2% compared with 1.3%).

- Few **new nonopioid psychoactive substances** measured in either absolute numbers or diversity were identified in drug reports for items seized by law enforcement in Wayne County, but those

seized were more likely to be classified as synthetic cathinones (19 items for 4 substances) or piperazines (4 items for 3 substances) as opposed to as synthetic cannabinoids (1 item).

- Seizures of hallucinogenic drugs including **MDMA** stayed stable and at low levels.

- After last year's **56.4% increase in drug overdose deaths** that documented **fentanyl, fentanyl analogs, carfentanil**, and **U-47700** alone and in combination in the decedents, 2017 had a 17.7% increase in deaths.

OVERVIEW

In 2016, Wayne County experienced a 56% increase in drug overdose deaths with fentanyl, carfentanil, and U-47700 as causes of death; 2017 was better but still saw a 17.7% increase with no clear reason for the smaller increase. In 2017, deaths were still dominated by fentanyl and analogs. Naloxone distribution was emphasized by local authorities, and standing orders facilitated naloxone pharmacy sales but data on the impact of these interventions were limited. Overall prescriptions for opioid medications dispensed declined, admissions to substance use disorder treatment facilities climbed, and there was no infectious disease outbreak specifically linked to substance abuse, yet the high number of deaths overshadowed everything.

The drug overdose deaths and treatment admissions reflect both the impact of individual drugs and their combined use. Overall, 57.2% of treatment admissions had two or three drugs of abuse listed (only three are allowed to be listed, and there is no incentive by the treatment facilities to list more than one). Of the deaths with controlled substances listed as causing the death (96.3% of total drug overdose deaths), 71.1% had two or more drugs listed.

Steps taken to address the increase in drug overdose deaths include authorizing standing orders for naloxone and treatment capacity expansion through Medicaid funding. In 2017, the number of admissions increased by 31.8% (61% increase from 2013) with almost half of the total admissions (45.9%) having a primary drug of abuse of either heroin or prescription opioids. Nevertheless, the overdose deaths are also a reminder of the diversity of people who abuse drugs. The mean age of admissions ranged from a high of 45.5 years for cocaine to a low of 29.1 years for marijuana. Other primary drugs of abuse with a young mean age at admission were benzodiazepines (33.6), other stimulants besides methamphetamine (31.9), and methamphetamine (38.7).

NDEWS Priority Substances

COCAINE/CRACK

Key Findings

Cocaine was found in almost as many drug overdose deaths as heroin (33.6% vs. 37.7%), but among the deaths caused by cocaine, opioids were also listed as a cause of death in 87.5%. Cocaine was the third most common primary drug of abuse at admission to treatment and was predominately smoked (84.7%). There were more admissions with cocaine as the secondary than as the primary drug of abuse. Admissions with cocaine as the primary drug of abuse were more likely 45 years of age and older (61.0%) than with other drugs of abuse. Cocaine continued to rank second in NFLIS.

The number of Wayne County drug overdose deaths caused by cocaine was 335 or 33.6% of all drug overdose deaths compared with 332 in 2016. The highest number recorded was in January 2017 with 40 deaths. For 2016, the month with the highest tally was December with 39 deaths, according to public statements by the Chief Medical Examiner. Similar to 2016, decedents with cocaine as the cause of death were mostly male (68.7%), non-Hispanic White (56.1%), found home (34.6%), and with fentanyl (64.2%) and heroin (35.8%) also listed as causes of death. Opioids (i.e., fentanyl, heroin, U-47700, carfentanil, or prescription opioids) were listed as causes of deaths in 80.9% of the cocaine deaths. There were 52 deaths with no other drugs listed as cause of death (15.5%) compared with only 12 in 2016. The mean age of the decedents was 43.9 years.

Cocaine was the third most common primary drug of abuse at admission to treatment (n = 2,506 or 11.8%), but there were more admissions with cocaine as a secondary (n = 5,242) than as a primary drug of abuse. In fact, it was the most common secondary drug of abuse at admission. People admitted with the primary drug of cocaine were more likely to be male (66.0%) and to smoke it (84.7 %). Those who were admitted to treatment were also more likely to be older (45+, 61.0%) than for other drugs of abuse. The most common secondary drug of abuse was alcohol (32.2%) and marijuana (19.3%). The number of admissions for cocaine as the primary drug of abuse has trended upward since 2014 with the demographic profile staying similar.

Cocaine continued to be the second-ranked drug identified in reports for items seized and analyzed in the NFLIS database for 2017; it accounted for 18.0% of items analyzed compared with 17.8% in 2016.

METHAMPHETAMINE

Key Findings

Methamphetamine accounted for fewer treatment admissions or deaths than most other drugs of abuse but was increasingly identified in seizures. This increase may indicate an increased supply of the drug.

Methamphetamine was seventh among the 8 top primary drugs of abuse at treatment admission (n = 34 admissions or 0.2%), but it has been steadily increasing since 2015. Admissions with methamphetamine as the primary drug of abuse are most likely to be male (79.4%) and between the ages of 26 and 44 (67.6%). Most admissions for methamphetamine reported smoking it (58.8%); 14.7% reported marijuana and 14.7% reported cocaine as the secondary drug of abuse. Methamphetamine was the only drug of abuse at admission for 23.5%.

In the 2017 NFLIS, methamphetamine was ranked eighth in psychoactive substances seized compared with ninth in 2016 and twelfth in 2015. The percentage of items seized increased from 1.4% in 2017 from 0.9% in 2016 and 0.4% in 2015.

Only three deaths were recorded as being caused by methamphetamine. All of the decedents were non-Hispanic Whites, and two were male. Two of the deaths also had fentanyl as a cause of death, and one death had no other drugs listed as a cause.

It is not known if the small increases in both admissions and items seized represent a growing demand or an increased supply.

HEROIN

Key Findings

Heroin continues to be an important drug of abuse in Wayne County. The number of deaths caused by heroin in 2017 was 37.7%, which was more than any other drug except fentanyl. Admissions for heroin as the primary drug of abuse dropped to 40.1% from 42.9% of publicly funded treatment admissions during 2016; however, heroin still accounted for more admissions than for any other substance. In 2011, heroin admissions accounted for 32.2% of all treatment admissions. In reports from NFLIS, heroin was the third most common substance seized and analyzed (behind cannabis and cocaine). The expansion of naloxone training and recent approval of standing orders for naloxone are important actions to counter the rise in opioid deaths.

The number of Wayne County drug overdose deaths with laboratory-confirmed heroin metabolite was 376 (37.7%) in 2017, which was similar to 334 (39.4%) in 2016. The month with the highest number of heroin deaths was January 2017 (n = 45), which was similar to the peak for December 2016 with 43 deaths. The people who died from heroin were mostly male (69.1%), non-Hispanic White (59.6%) but not found at home (41.0%). People whose deaths were caused by heroin frequently also had another drug listed as causing death (89.4%), especially fentanyl (77.1%). Non-Hispanic Whites (mean age = 40.6) who died from heroin were younger than African Americans (mean age = 53.1) who died from heroin.

Treatment admissions with the primary drug of heroin accounted for the largest proportion of total admissions (n = 8,500 or 40.1%) in 2017 of any drug. Admissions with heroin as the primary drug of abuse were mostly male (63.1%) and aged 26 to 44 (49.5%). There was a noticeable racial difference in both injection rates (75.2% of non-Hispanic Whites and 27.4% of African Americans) and mean age at admission (34.8 for non-Hispanic Whites and 53.4 for African Americans). The proportion of treatment admissions injecting heroin was 54.5% with 43.6% inhaling the drug. Cocaine was the most common secondary drug of abuse (36.2%), and only 37.6% did not have a secondary drug of abuse.

Heroin was the third-ranked drug identified in reports for items seized and analyzed in NFLIS with 10.1% of total reports. This proportion appears to be declining: 10.1% in 2017, 11.5% in 2016, and 13.5% in 2015.

PRESCRIPTION OPIOIDS

Key Findings

Prescription opioids were found in 13.3% of drug overdose deaths and ranked fifth among primary drugs of abuse for treatment admissions. In NFLIS, hydrocodone accounted for 2.2% of items and oxycodone accounted for 1.4%. The DEA's Automation of Reports and Consolidated Orders System (ARCOS) continued to document the tremendous volume of codeine and hydrocodone distributed in Michigan; the only states with more distribution were California and Texas, both of which have much larger populations.

Identified Prescription opioids other than fentanyl and carfentanil caused 133 deaths (13.3%) in 2017. Opiates, morphine, and methadone were not included in this category. Among the 133 deaths, most were male (54.9%), non-Hispanic Whites (74.4%), and found at home (61.7%). The mean age at death

was 44.9 years. Most decedents (77.4%) had other drugs listed as the cause of death. These drugs included fentanyl (28.6%), benzodiazepines (18.8%), and heroin (18.0%).

Prescription opioids as the primary drug of abuse ranked fifth in treatment admissions (*n* = 1,228 or 5.8% of admissions). The proportion of total admissions with prescription opioids as the primary drug of abuse has stayed fairly constant since 2013. Most people admitted with prescription opioids as the primary drug of abuse are male (55.2%), non-Hispanic White (65.7%), and age 26–44 (59.5%). For most admissions, there was a secondary drug of abuse (63.8%) with benzodiazepines (14.8%), alcohol (12.2%), and cocaine (11.9%) being the most common secondary drug of abuse.

In the NFLIS database for Wayne County, hydrocodone is the most common prescription medication identified in reports for items seized and analyzed. It was ranked fifth (same as 2016). Pharmacists anecdotally report that generic oxycodone immediate release is the most frequently diverted opioid. Nevertheless, NFLIS does not report on packaging of substances analyzed. Codeine accounted for 0.4% of the items analyzed, which was the same as MDMA (0.4%).

The number of scheduled prescription units (dry units, including pills, patches, and lozenges and excluding liquids) dispensed increased from 2007 to 2015 but declined in 2016 and 2017 for Wayne County. The decline was consistent across all schedules, from Schedule II to Schedule IV medications. Although there had been declines in separate schedules before in the state, 2016 was the first time since the electronic prescription drug monitoring program was implemented that there was a decline across all schedules and 2017 continued that decline in Wayne County. When examined as the number of opioid prescriptions filled (not units), there was an increase from 2014 to 2015; data for 2016 and 2017 have not been analyzed by the state. Also the CDC's comparison of morphine milligram equivalent (MME) per capita for 2010 and 2015 saw stable prescription dispensing for Wayne County: 796.6 to 801.5 MME per capita. For the 2,734 counties with data, Wayne County ranked 1,234 in 2010 and 1,015 in 2015.

Per ARCOS records for 2010 to 2017, the ranking of Michigan for total weight of medication distributed did not show major changes across select medications. Examination of total grams distributed of oxycodone and hydrocodone did show declines from 2016 to 2017.

FENTANYL AND OTHER NONPRESCRIPTION SYNTHETIC OPIOIDS

Key Findings

Fentanyl and carfentanil are the primary drugs of concern in Wayne County because of their sudden appearance and dramatic contribution to the 56% rise in drug overdose deaths from 2015 to 2016 and their continued dominance in 2017 drug overdose deaths that peaked in January 2017. Fentanyl seizures climbed to fourth among controlled substances in 2017 compared with seventh in 2016. However, less fentanyl was seized locally (3.0%) than nationally (3.9%). Carfentanil was seized and identified slightly more than expected based on national estimates (0.6% compared with 0.4%). In 2016, carfentanil was found in Wayne County items for the first time, and it continued to be found in 2017. Wayne County experienced a 17.7% increase in drug overdose deaths that documented fentanyl, fentanyl analogs, carfentanil, and U-47700 alone and in combination in the decedents.

The most dramatic findings with regard to opioids continued from 2016 were (a) the increasing number of deaths caused by fentanyl, (b) the detection of carfentanil in decedents and NFLIS, and (c) the detection of U-47700 in decedents but rarely in NFLIS.

Of the 997 drug overdose deaths, 621 were from fentanyl (62.3%), which was a 44.4% increase from 430 such deaths in 2016. People who died from fentanyl were mostly male (68.8%), non-Hispanic White (61.7%), but not found at home (42.8%). Mean age at death was 43.8 years. Most decedents (83.3%) had multiple drugs listed as cause of death. Specific analogs detected were 3-methyl fentanyl, 4-ANPP (precursor of fentanyl), acetyl fentanyl, cyclopropyl fentanyl, methoxyacetyl fentanyl, butryl fentanyl, isobutyrul fentanyl, and furanyl fentanyl.

Fentanyl was also increasingly seized and identified in NFLIS: In 2017, it was ranked fourth of controlled substances with 3.0% of total drug reports. This percentage is higher than hydrocodone (2.2%), alprazolam (1.8%), or oxycodone (1.4%).

Carfentanil was detected in 58 (5.8%) decedents. More people died from carfentanil than from the hydrocodone, the most commonly prescribed opioid in Michigan. Disturbingly, carfentanil was first detected in September 2016 and then every month until February 2017. Starting in April 2017, it was found sporadically in different months. People who died from carfentanil were mostly male (74.1%) and non-Hispanic Whites (60.3%) but not found at home (39.7%). The mean age at death was 42.9 years. There were 14 reports of carfentanil in NFLIS, which was less than the combined number of synthetic cathinones (n = 19).

U-47700 was not reported to NFLIS in 2016 and was relatively low in 2017 (n = 3). Nonetheless, at least 15 people died from U-47700 in 2016 and 15 died in 2017. They were mostly male (73.3%), non-Hispanic Whites (80%), and found at home (53.3%). All of the decedents had other drugs listed as causing death: 93.3% had fentanyl, 33.3% had cocaine, and 26.7% had heroin.

Other Priority Substances in Detroit

BENZODIAZEPINES

Key Findings

Benzodiazepines caused the death of 54 people in Wayne County during 2017, of which alprazolam was listed in 36 deaths. A large proportion also had opioids as a cause of death (83.3%). There were 149 treatment admissions with benzodiazepine as the primary and 789 with it as the secondary drug of abuse. Alprazolam ranked sixth in NFLIS reports for controlled substances, ahead of oxycodone.

Among the 997 drug overdose deaths in 2017 available for preliminary analysis, 54 had a benzodiazepine listed as a cause of death, of which 36 had alprazolam specifically listed. Of those 54

decedents, 46.3% were female, 85.2% were non-Hispanic Whites, and most were found at home (57.4%). The people whose deaths were caused by benzodiazepines had a mean age of 40.2 years at the time of their death. They were also likely to have identified non-morphine or methadone prescription opioids excluding fentanyl (72.2%) listed as a cause of death. Very few decedents had only benzodiazepine listed as cause of death (7.4%).

There were 149 admissions with benzodiazepines as the primary drug of abuse (0.7% of total admissions), ranking it sixth among primary drug of abuses. Admissions were predominately female (57.7%) and concentrated among those ages 26 to 44 (52.3%). Benzodiazepine was the only drug of abuse listed for 17.4% of the admissions. Common secondary drugs of abuse were prescription opioids (27.5%), alcohol (14.1%), and heroin (12.8%). These admissions with benzodiazepines as the primary drug of abuse were dwarfed by the number of admissions with benzodiazepines as secondary drug of abuse (*n* = 789).

One benzodiazepine, alprazolam, ranked sixth with 44 items (1.8% of total drug reports) in the NFLIS in 2017. Other benzodiazepines, such as clonazepam (*n* = 6) and diazepam (*n* = 3), were less commonly identified. The number of items identified as alprazolam was lower in 2017 compared with 2016 when 154 items were reported (2.9% of total drug reports).

MARIJUANA

Key Findings

Marijuana treatment admissions as a percentage of total admissions declined, but as the primary drug of abuse, it still ranked fourth. Admissions were younger than for other drugs of abuse. It was the most common drug identified in the NFLIS, even though Michigan has medical marijuana and Detroit decriminalized possession of small amounts by adults. Changes could occur in the future as Michigan is poised to vote November 2018 to legalize recreational marijuana use.

The number of medical marijuana certificates newly approved in Wayne County continued to decline: 20,205 in fiscal year 2017 compared with 21,143 in fiscal year 2016 and 25,949 in fiscal year 2015. In fiscal year 2017, the total number of patients with medical marijuana certificates was 44,520.

Treatment admissions, traditionally driven by legal pressure, were 1,433 in 2017, which is the lowest in percentage of the total for the past five years (6.8%). Marijuana ranked fourth among primary drugs of abuse for admissions in 2017 and 54.6% had no other drug of abuse at admission. However 52.9% of those without a secondary drug of abuse were age 25 or younger. Admissions with the primary drug of abuse of marijuana had the youngest age distribution (13.1% younger than 18 years of age), but the plurality of people were aged 26 to 44 (46.3%). Among treatment admissions, the most common secondary drug of abuse was alcohol (27.4%). Marijuana was also a common secondary drug of abuse among people admitted for treatment (19.3% of cocaine and 14.7% for methamphetamine).

Marijuana was the most common drug identified in reports for items seized and analyzed in NFLIS in 2016 but is declining as a percentage of the total drug reports: 46.8% in 2017, 49.6% in 2016, and 50.1% of items in 2015. The percentage identified as marijuana may continue to decline as Michigan will vote

on legalizing recreational marijuana in 2017 and Canada, accessible from Wayne County by a tunnel and for now one bridge, is poised to relax its regulations.

NEW PSYCHOACTIVE SUBSTANCES (OTHER THAN OPIOIDS)

In Wayne County, 8 different new psychoactive substances other than opioids (and 24 reports) were identified in reports from items seized and analyzed in NFLIS out of a total of 2,500 reports for 2017. Of items seized and analyzed, synthetic cathinones were most common (*n* = 19) followed by piperazines (*n* = 4). Synthetic cannabinoids had only 1 report. No items were identified as synthetic cannabinoids. It is not possible from the NFLIS data obtained for this report to determine the form of the synthetics seized and analyzed (e.g., sold as Ecstasy, bath salts, or mixed with other substances)

When compared with the percentage from the national total, Wayne County had similar percentages for synthetic cathinones (0.8 vs. 0.7%) and piperazines (0.2% vs. <0.1%). For synthetic cannabinoids, Wayne County had far fewer than expected (<0.1% vs. 1.6%). Compared with the nation, Wayne County does not seem to have the diversity or number of synthetic compounds identified when compared with other sites in the NFLIS database. This does not mean that the new psychoactive substances are absent in the community or that those that are being distributed are safe. Furthermore, there is not a Wayne County site in the Toxicology Investigators Consortium Registry, a consortium that monitors toxicology reports in patients. This means that Wayne County relies on NFLIS for data; items seized by law enforcement and requested by the prosecutor to be analyzed were mostly cannabis, cocaine, and heroin (75% of drug reports in 2017).

Compared with 2015, there was a decline in the number of synthetic cathinones identified (19 vs. 37) but more than in 2016 (*n* = 14). A decline was noted for piperazines (4 in 2017, 5 in 2016, and 18 in 2015).

Local Research Highlights

In response to the rise in deaths attributed to fentanyl, there has been urgency to form collaborations between public health officials, clinicians, law enforcement, and university researchers. This collaboration has resulted in mapping of opioid deaths and identifying two hot spots. In one hot spot, a dedicated intervention was located (*Hope not Handcuffs*), while the other hot spot is more challenging as it is known for criminal activity. Another activity was the mapping of naloxone runs by Detroit Emergency Medical Services and assessing the percentage of naloxone administrations for opioid overdoses that resulted in patient improvements. Future analysis will focus on trends in these geospatial patterns. The hospitals to which these patients were transported were also prioritized for locating peer recovery specialists in the emergency department, showing the direct implications of these partnerships. A third activity was monitoring the Cascade of Care with initial focus on the transition from seeking care to admission.

Lastly, analysis of the temporal trends of opioid involvement in deaths identified a spike of deaths peaking in January 2017. This spike corresponded with the appearance and peak involvement of carfentanil in Wayne County decedents. Although the number of deaths caused by carfentanil did not account for the spike, the temporal trends suggest it was a marker and may have reflected international agreements on fentanyl and analogs. A more in-depth analysis focused only on nonpharmaceutical opioid-related deaths (and not all drug overdose deaths) that occurred outside of hospitals (medical examiners do not complete death certificates for deaths occurring in hospitals). In an accepted abstract and manuscript being revised for *American Journal of Public Health*, King and colleagues looked closely at the 645 deaths between July 2015 and February 2017 with the peak in January 2017. Unexpectedly, carfentanil was detected in 20% of the deaths. Most decedents were male (65%) and non-Hispanic White (63%) with a mean age of 43. Other substances documented by laboratory assessment were morphine (57%), a metabolite of heroin (6-monoacetylmorphine) (38%), fentanyl (38%), a metabolite of fentanyl (norfentanyl) (33%), THC (34%), and cocaine (29%).

Infectious Diseases Related to Substance Use

There have been no reports of outbreaks in infectious diseases specifically linked to injecting drug use. People known to abuse drugs were included in the ongoing spike of Hepatitis A cases in the tri-county metropolitan Detroit area but were not reported to be the cause of it. Between August 2016 and May 2018, there were 312 reported cases in Wayne County compared with fewer than 5 cases per year usually. For the state, there have been 833 in the outbreak defined as occurring in 12 counties. Of the 302 primary cases (not resulting from person-to-person infection), 50.2% had "documented substance abuse."

As of July 2017, there were an estimated 15,629 people living in Michigan with diagnosed HIV infection for a rate of 157.4 per 100,000 with the decline in total number of people from last year attributed to emigration. Overall, risk groups for the prevalent cases include men who have sex with men (MSM) (53%), heterosexual contact (19%), injection drug use (IDU; 7%), MSM/IDU (4%), perinatal (1%), and undetermined (15%). The age groups with the most prevalent cases were 50–59 years (28%), 40–49 years (24%), and 30–39 years (18%). African Americans were most impacted (56%) followed by Whites (34%). Detroit is home for 5,530 prevalent cases (79% in care) for a rate of 715 per 100,000. Detroit also accounts for 34% of new HIV diagnoses in the state. People living with HIV in Detroit who are not in care are most likely adolescents (46% of persons 13–19 who are living with HIV are not in care), foreign born (44%), White females (38%), or those who inject drugs (29%).

As of July 2017, there were 748 new cases of HIV infection for a rate of 7.5 per 100,000. Similar to the prevalence data, African Americans (58%) and males (82%) were disproportionately represented. In fact, African American males accounted for almost half of the new cases (46%). Risk groups for infection were MSM (60%), undetermined (18%), heterosexual contact (15%), IDU (3%), and MSM/IDU (3%) with 3 perinatal cases. The new cases in Michigan disproportionately lived in Detroit (34%) and outside of Wayne County (12%).

There were 46 new acute cases of Hepatitis B in 2015, which is a rate of 0.46 per 100,000. This rate increased slightly from 2015 but is below the national rate of 0.96 per 100,000. The new cases did not differ markedly by gender (48% female and 52% male) but were predominately White (72%) with a mean age of 47. There were 1,284 new chronic Hepatitis B diagnoses in Michigan in 2015, which was an increase for a rate of 12.93 per 100,000 people with a predominance of males (58%) and Asian Americans (82.79 per 100,000).

There were 154 new acute Hepatitis C infections across Michigan in 2015 for a rate of 1.55 per 100,000. This rate is much higher than those reported in 2013 (0.75), 2014 (0.77), and 215 (0.85) and nationally (0.76 in 2015). Cases are still being followed from 2016, but injection drug use was reported by 64% of acute Hepatitis C cases. There were 11,883 new chronic Hepatitis C cases in 2016 for a rate of 119.76 per 100,000, which was an increase from 2014 (79.25). The rate has increased in both men (14.2) and women (97.23). The rate is higher among American Indians and Alaskan Natives (149.82) and African Americans (155.46) than among the general population. Injection drug use was a risk factor for 64% and incarceration for 63%. No information is published on the rates by county. Importantly, since 2005, the number of cases among persons 18–29 years of age has increased by more than 473%. For this age group, 84.2% reported injection drug use.

New Substance-Related Legislative and Policy Updates

Specific recent policies affecting drug use include the statewide approval of medical marijuana (2008), centralizing of regulations of medical marijuana within the Bureau of Medical Marihuana Regulation with new statutory requirements of facility licensing and regulation (2017), expansion of Good Samaritan laws (2016), standing order preauthorizing the distribution of naloxone by pharmacists (2017), and release of an updated prescription drug monitoring program (2017) with a requirement that prescribers use it (2017). As of July 1, 2018, a prescriber cannot prescribe more than a 7-day supply of an opioid for acute pain within a 7-day period. An initiative to legalize recreational marijuana use by adults collected sufficient signatures and was approved for the November 2018 ballot. The legislature is preparing to schedule gabapentin as soon as autumn 2018.

Other policies impacting drug abuse include the Michigan Prescription Drug and Opioid Abuse Task Force releasing its recommendations (2015), which included updating (now completed) and requiring providers to use of the prescription monitoring system (2017). In 2014, substance abuse was added to the mental health law as a possible cause for involuntary treatment. Also signed into law was the requirement that all first-responders in the state be required to be trained in the use of naloxone in 2014. Furthermore, Medicaid and other insurers have implemented limits on the number of opioids that can be prescribed.

At the local level, several municipalities have decriminalized possession of small amounts of marijuana, including Detroit in 2012. Dispensaries of medical marijuana are subject to local zoning ordinances and
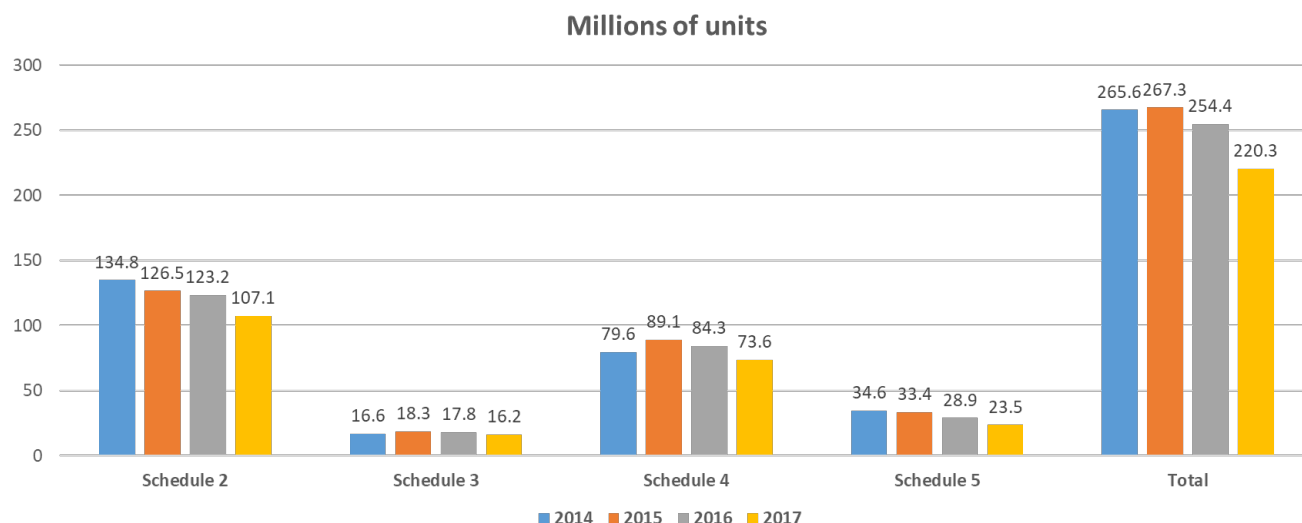
now must receive a state license. The state is still conducting a background review before responding to the backlog of applications.

In Wayne County, naloxone training began in 2016 for first-responders and then expanded to the community with the Detroit Wayne Mental Health Authority (entity responsible for public funding of behavioral health in Wayne County) providing training and naloxone kits. The Detroit Wayne Mental Health Authority also expanded permanent drug take-back sites to 46 police stations across the county. Additionally, the Detroit Wayne Mental Health Authority trained providers at all methadone-maintenance treatment centers to administer long-acting naltrexone and encouraged them to offer buprenorphine as a way to expand medication-assisted treatment capacity.

Michigan was one state that expanded Medicaid (April 1, 2014), which allowed for an increase in the number of people entering drug treatment. This expansion was reflected in the overall increase in treatment admissions data provided in this profile. In addition, the integration of substance abuse services with mental health services included the use of a common admission form that started in fiscal year 2015.

Exhibits

Exhibit 1. Total Number of Controlled Medication Units in Millions Dispensed by Schedule, Wayne County: CY2014–CY2017

Millions of units

Schedule	2014	2015	2016	2017
Schedule 2	134.8	126.5	123.2	107.1
Schedule 3	16.6	18.3	17.8	16.2
Schedule 4	79.6	89.1	84.3	73.6
Schedule 5	34.6	33.4	28.9	23.5
Total	265.6	267.3	254.4	220.3

Notes: Excludes liquids. 2017 data are based on the county of the pharmacy.

Source: State of Michigan.

Exhibit 2. Number of Opioid Prescriptions Dispensed in Wayne County: CY2009–CY2015

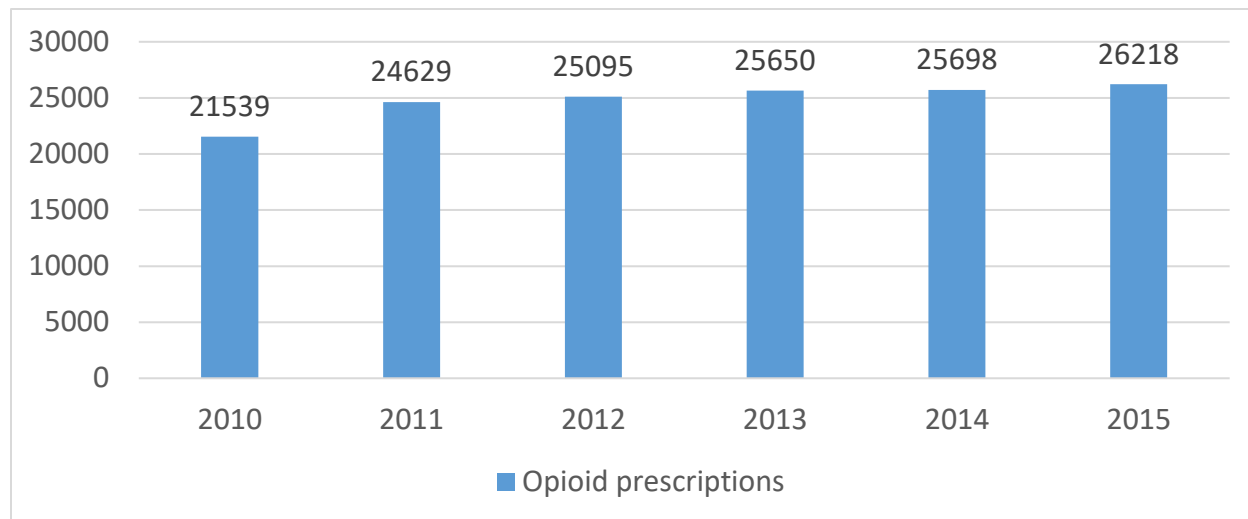| Year	Opioid prescriptions
2010	21539
2011	24629
2012	25095
2013	25650
2014	25698
2015	26218

Exhibit 3. Drug Overdose Deaths in Wayne County: Preliminary Data from Wayne County Medical Examiner for 2017
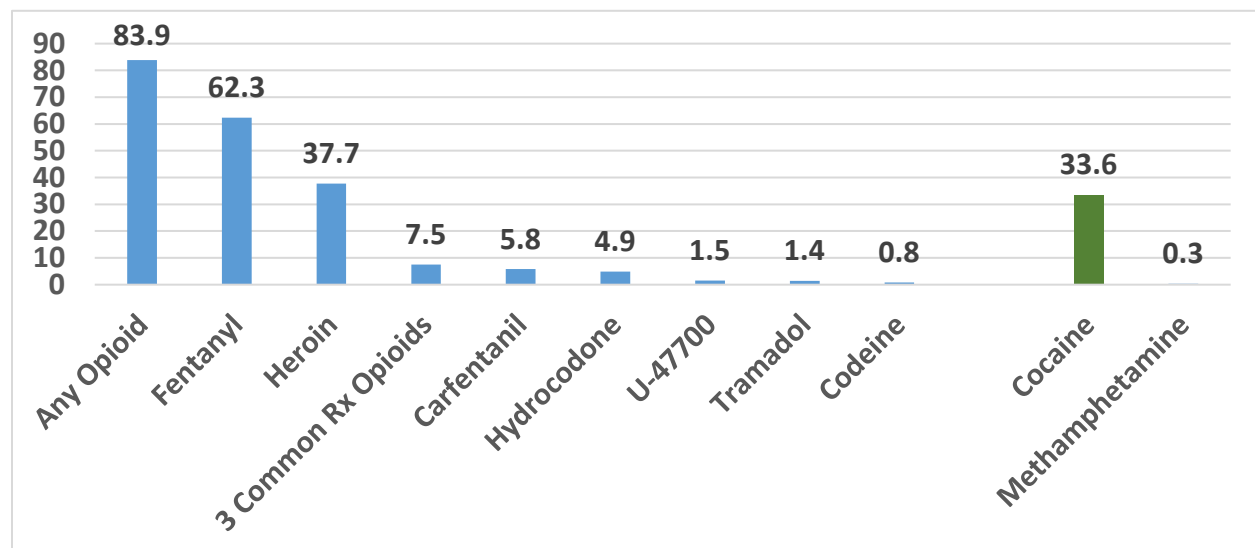
Notes: Preliminary findings as of May 2018. Total drug overdose deaths = 997.

Source: Wayne County Medical Examiner.

Exhibit 4. Wholesale Distribution of Prescription Opioids: Michigan's Ranking from 2010 to 2017

Not corrected for population
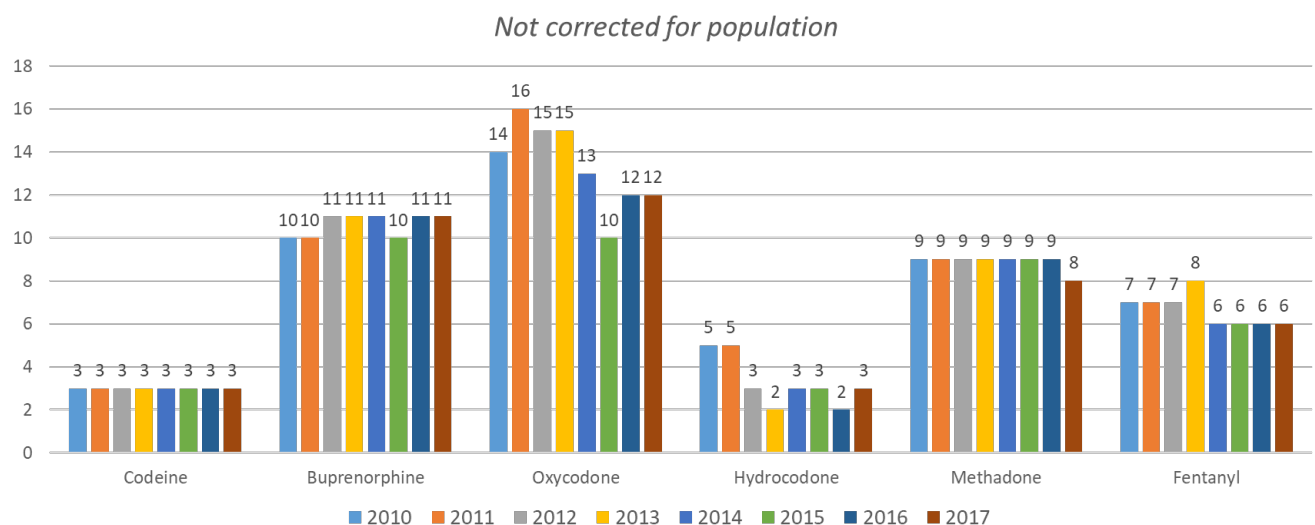
Notes: In 2010 census, Michigan ranked eighth in population.

Source: ARCOS, Report 2.

Exhibit 5. Changes Over Time in Wholesale Distribution of Oxycodone and Hydrocodone: Michigan 2010–2017
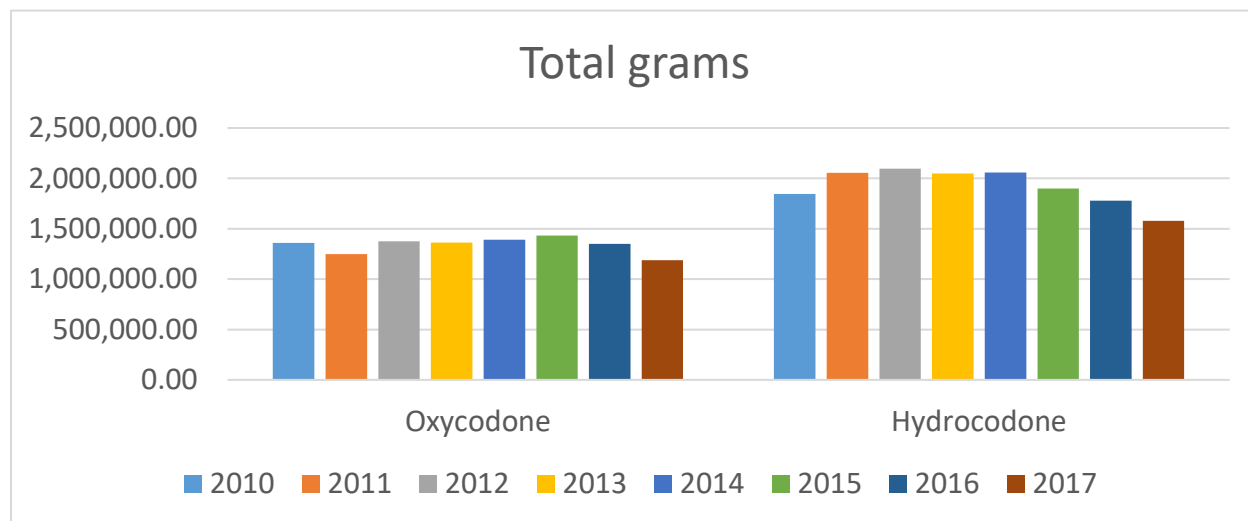
Source: ARCOS, Report 2.

Exhibit 6. Percentage of Total Items Analyzed in Wayne County Compared with the Nation: 2017
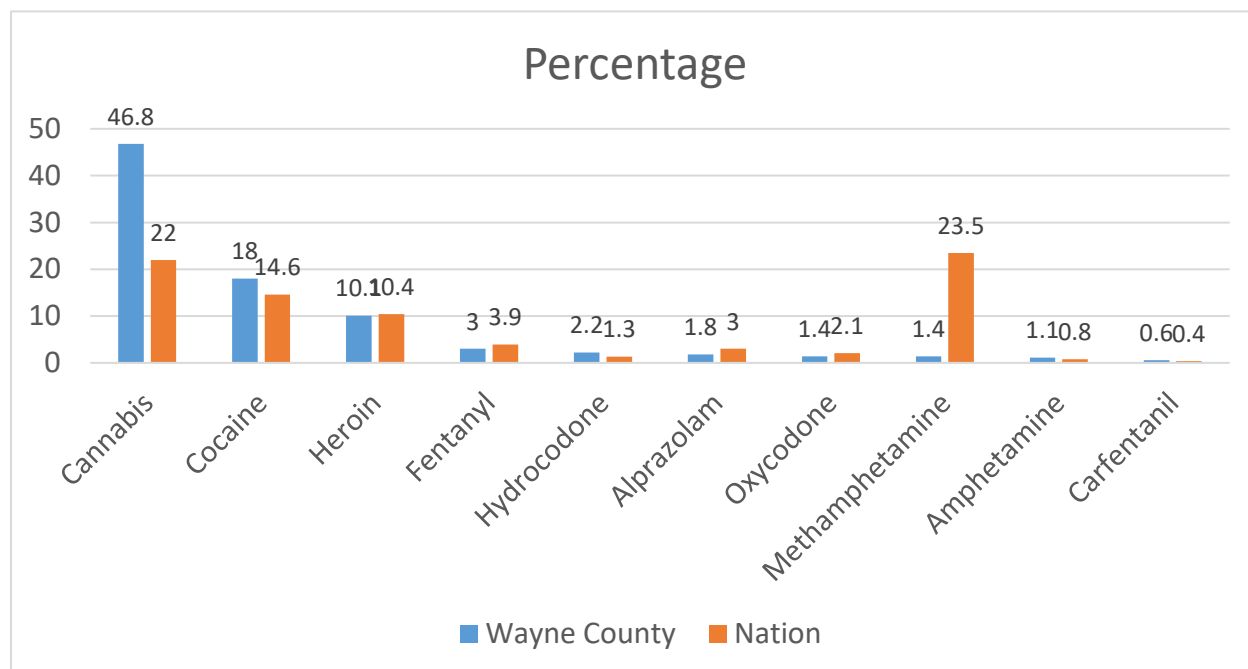
Source: National Forensic Laboratory Information System (NFLIS).

Exhibit 7. Percentage of Total Items Analyzed in Wayne County: 2014–2017

Source: National Forensic Laboratory Information System (NFLIS).

Treatment Tables

Table 1: Trends in Admissions* to Programs Treating Substance Use Disorders, Wayne County (Detroit Area) Residents, 2013-2017

Number of Admissions and Percentage of Admissions with Selected Substances Cited as Primary Substance at Admission, by Year and Substance

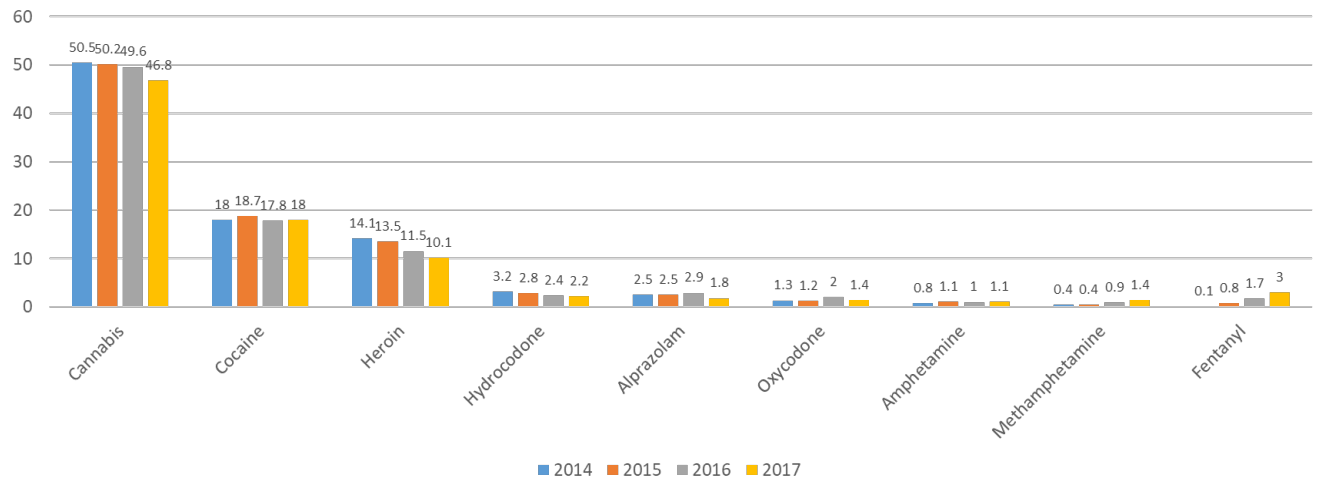|	Calendar Year									
	2013		2014		2015		2016		2017	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	**13,189**	**100%**	**11,976**	**100%**	**13,420**	**100%**	**18,005**	**100%**	**21,191**	**100%**
Primary Substance of Abuse (%)										
Alcohol	4,223	32.0%	3,904	32.6%	4,582	34.1%	5,843	32.5%	7,254	34.2%
Cocaine/Crack	1,565	11.9%	1,220	10.2%	1,556	11.6%	1,938	10.8%	2,506	11.8%
Heroin	4,858	36.8%	4,867	40.6%	5,207	38.8%	7,726	42.9%	8,500	40.1%
Prescription Opioids	809	6.1%	746	6.2%	881	6.6%	992	5.5%	1,228	5.8%
Methamphetamine	17	0.1%	24	0.2%	12	0.1%	27	0.1%	34	0.2%
Marijuana	1,477	11.2%	1,049	8.8%	1,042	7.8%	1,242	6.9%	1,433	6.8%
Benzodiazepines	116	0.9%	96	0.8%	77	0.6%	165	0.9%	149	0.7%
MDMA	2	0.0%	8	0.1%	4	0.0%	unavail	unavail	unavail	unavail
Synthetic Stimulants***	unavail	unavail	unavail	unavail	8	0.1%	21	0.1%	28	0.1%
Synthetic Cannabinoids	0	0.0%	0	0.0%	0	0.0%	unavail	unavail	unavail	unavail
Other Drugs/Unknown	122	0.9%	62	0.5%	51	0.4%	51	0.3%	59	0.3%

NOTES:

*Admissions: Admissions whose treatment was covered by Medicaid or Block Grant funds; excludes admissions covered by private insurance, treatment paid for in cash, and admissions funded by the Michigan Department of Corrections. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

**Synthetic Stimulants: Includes amphetamines and synthetic stimulants.

unavail/sup: Data suppressed to protect confidentiality; **unavail:** Data not available.

SOURCE: Data provided to the Wayne County (Detroit Area) NDEWS SCE by the Michigan Department of Health and Human Services, Bureau of Behavioral Health and Developmental Disabilities, Division of Quality Management and Planning, Performance Measurement and Evaluation Section.

	Primary Substance																	
	Alcohol		Cocaine/Crack		Heroin		Prescription Opioids		Methamphetamine		Marijuana		Benzo-diazepines		Synthetic Stimulants**		Synthetic Cannabinoids	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Number of Admissions (#)	7,254	100%	2,506	100%	8,500	100%	1,228	100%	34	100%	1,433	100%	149	100%	28	100%	unavail	unavail
Sex (%)																		
Male	5,137	70.8%	1,654	66.0%	5,366	63.1%	678	55.2%	27	79.4%	982	68.5%	63	42.3%	17	60.7%	unavail	unavail
Female	2,117	29.2%	852	34.0%	3,134	36.9%	550	44.8%	7	20.6%	451	31.5%	86	57.7%	11	39.3%	unavail	unavail
Race/Ethnicity (%)																	0	0.0%
White, Non-Hisp.	2,256	31.1%	499	19.9%	4,277	50.3%	807	65.7%	22	64.7%	245	17.1%	109	73.2%	16	57.1%	unavail	unavail
African-Am/Black, Non-Hisp	4,373	60.3%	1,824	72.8%	3,500	41.2%	289	23.5%	7	20.6%	1,027	71.7%	20	13.4%	1	3.6%	unavail	unavail
Hispanic/Latino	282	3.9%	83	3.3%	335	3.9%	51	4.2%	3	8.8%	55	3.8%	8	5.4%	4	14.3%	unavail	unavail
Asian	11	0.2%	2	0.1%	2	0.0%	5	0.4%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	unavail	unavail
Other	332	4.6%	98	3.9%	386	4.5%	76	6.2%	2	5.9%	105	7.3%	12	8.1%	7	25.0%	unavail	unavail
Age Group (%)																		
Under 18	6	0.1%	1	0.0%	0	0.0%	0	0.0%	0	0.0%	188	13.1%	0	0.0%	0	0.0%	unavail	unavail
18-25	369	5.1%	141	5.6%	576	6.8%	139	11.3%	1	2.9%	433	30.2%	40	26.8%	4	14.3%	unavail	unavail
26-44	3,066	42.3%	836	33.4%	4,209	49.5%	731	59.5%	23	67.6%	663	46.3%	78	52.3%	22	78.6%	unavail	unavail
45+	3,813	52.6%	1,528	61.0%	3,715	43.7%	358	29.2%	10	29.4%	149	10.4%	31	20.8%	2	7.1%	unavail	unavail
Route of Administration (%)																		
Smoked	12	0.2%	2,122	84.7%	83	1.0%	6	0.5%	20	58.8%	1,376	96.0%	0	0.0%	3	10.7%	unavail	unavail
Inhaled	1	0.0%	302	12.1%	3,703	43.6%	40	3.3%	2	5.9%	4	0.3%	2	1.3%	0	0.0%	unavail	unavail
Injected	0	0.0%	18	0.7%	4,633	54.5%	48	3.9%	7	20.6%	1	0.1%	0	0.0%	0	0.0%	unavail	unavail
Oral/Other/Unknown	7,241	99.8%	64	2.6%	81	1.0%	1134	92.3%	5	14.7%	52	3.6%	147	98.7%	25	89.3%	unavail	unavail
Secondary Substance (%)																		
None	3,250	44.8%	847	33.8%	3,195	37.6%	445	36.2%	8	23.5%	782	54.6%	26	17.4%	9	32.1%	unavail	unavail
Alcohol	0	0.0%	807	32.2%	744	8.8%	150	12.2%	4	11.8%	393	27.4%	21	14.1%	1	3.6%	unavail	unavail
Cocaine/Crack	1,841	25.4%	0	0.0%	3,077	36.2%	146	11.9%	5	14.7%	153	10.7%	13	8.7%	3	10.7%	unavail	unavail
Heroin	257	3.5%	239	9.5%	0	0.0%	101	8.2%	1	2.9%	21	1.5%	19	12.8%	1	3.6%	unavail	unavail
Prescription Opioids	224	3.1%	54	2.2%	442	5.2%	6	0.5%	3	8.8%	38	2.7%	41	27.5%	2	7.1%	unavail	unavail
Methamphetamine	5	0.1%	10	0.4%	14	0.2%	1	0.1%	0	0.0%	4	0.3%	2	1.3%	0	0.0%	unavail	unavail
Marijuana	1,469	20.3%	483	19.3%	566	6.7%	130	10.6%	5	14.7%	0	0.0%	13	8.7%	5	17.9%	unavail	unavail
Benzodiazepines	166	2.3%	35	1.4%	384	4.5%	182	14.8%	0	0.0%	13	0.9%	0	0.0%	7	25.0%	unavail	unavail
Synthetic Stimulants**	9	0.1%	6	0.2%	12	0.1%	46	3.7%	1	2.9%	2	0.1%	9	6.0%	0	0.0%	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail

NOTES:

***Admissions:** Admissions whose treatment was covered by Medicaid or Block Grant funds; excludes admissions covered by private insurance, treatment paid for in cash, and admissions funded by the Michigan Department of Corrections. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

****Synthetic Stimulants:** Includes amphetamines and synthetic stimulants.

unavail: Data not available; **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 Wayne County (Detroit Area) NDEWS SCE by the Michigan Department of Health and Human Services, Bureau of Behavioral Health and Developmental Disabilities, Division of Quality Management and Planning, Performance Measurement and Evaluation Section.

Sources

DATA FOR THIS REPORT WERE DRAWN FROM THE FOLLOWING SOURCES:

Treatment admissions data were provided by the Performance Measurement and Evaluation Section of the Division of Quality Management and Planning in the Bureau of Behavioral Health and Developmental Disabilities, Michigan Department of Health and Human Services, for those clients whose treatment was covered by Medicaid or Block Grant funds. The data therefore underestimate the total number of people receiving treatment because they do not include treatment paid by cash or covered by private insurance. Additionally, the data do not include admissions funded by the Michigan Department of Corrections. For Wayne County data, records are pulled from Behavioral Health electronic records. The data contained an unexpectedly high percentage of two or more races. Therefore, data on treatment admissions by race are not included in the report.

Data on drug reports among drug items seized in Wayne County and the state of Michigan and analyzed were provided by the National Forensic Laboratory Information System (NFLIS) for calendar year 2017 as reported in June 2018. The total reports include primary, secondary, and tertiary substances detected. The totals are preliminary and subject to change.

Numbers of prescriptions filled in the state of Michigan were provided by the Michigan Department of Licensing and Regulatory Affairs.

Numbers of people certified to use medical Marijuana were provided by the Michigan Department of Licensing and Regulatory Affairs.

Drug-related infectious disease data were provided by the Michigan Department of Health and Human Services on human immunodeficiency virus (HIV) and hepatitis.

Numbers of accidental drug-associated deaths for Wayne County were provided by the Office of the Medical Examiner (Wayne County) in March 2018 and may not reflect totals for the year.

Contact Information: For additional information about the drugs and drug use patterns discussed in this report, please contact Cynthia L. Arfken, Ph.D., Professor, Wayne State University, Department of Psychiatry and Behavioral Neurosciences, 3901 Chrysler Service Drive, Tolan Park Medical Building, Detroit, MI 48207, Phone: 313–993–3490, E-mail: cynthia.arfken@wayne.edu.