Drug Abuse Patterns and Trends in Cincinnati, Ohio: 2013

Jan Scaglione, B.S., M.T., Pharm.D., D.ABAT

ABSTRACT

The two key findings in the Cincinnati area in 2013 were the increase in all heroin indicators and the increase in methamphetamine indicators. The predominant drug issues in Cincinnati continued to involve marijuana and heroin as primary drugs of abuse in 2013. Indicators for heroin continued to increase during 2013 versus the previous 5 years. Preliminary data for treatment for primary heroin use, combined with other opiate/opioid admissions, accounted for nearly 36 percent of all admissions, surpassing admissions for alcohol and marijuana for the first time. Reports for heroin from drug items submitted for forensic analysis accounted for 28.4 percent of all items submitted during 2013. The Medical Examiner recorded 78 deaths attributed to heroin alone and an additional 110 deaths with heroin in combination with other drugs. Indicators for marijuana in the Cincinnati region remained stable at high levels. Marijuana accounted for 29.2 percent of primary treatment admissions during calendar year (CY) 2013. Marijuana also accounted for 35.5 percent of reports among drug items submitted for forensic analysis for Hamilton County. The indicators for crack and powder cocaine decreased in 2008, when both supply and quality were affected by large drug seizures by law enforcement, and the effect carried over through 2012. Indicators in 2013 showed the beginning of a resurgence of cocaine/crack cocaine, as law enforcement removed more than 17 kilograms of cocaine from the street, an increase of more than 590 percent from the previous year. Preliminary treatment data for primary cocaine use leveled off and accounted for 8.3 percent of all admissions in 2013. Methamphetamine indicators were low to moderate in Cincinnati compared with other drugs of abuse. There was a 59-percent increase in the number of clandestine methamphetamine laboratory seizures discovered during fiscal year (FY) 2013 compared with FY 2012, and an increase of more than 154 percent from FY 2011. The increased number of clandestine laboratories discovered in 2013 was attributed to a higher number of one-pot method equipment findings. Methamphetamine encountered in the Cincinnati area has primarily been locally produced using the one-pot method, but law enforcement cited an increase in trafficking of crystal methamphetamine in 2013. Indicators for MDMA (3,4-methylenedioxymethamphetamine) remained at a low level in Cincinnati during 2013 with evidence of other drugs being sold as MDMA (BZP [1-benzylpiperazine], BCP [benocyclidine], and TFMP [1-[(3-(Trifluoromethyl)-phenyl)piperazine]). Abuse of prescription drugs, specifically benzodiazepines and opioid narcotics, continued to be an ongoing drug issue in Cincinnati. Qualitative indicators pointed to relative high but stable use in 2013. Human exposure cases reported to Ohio poison control centers involving buprenorphine involved children age 3 or younger in 39 percent of the cases and intentional abuse in 37 percent of the adult cases recorded in 2013. The Cincinnati poison control center recorded 205 human exposures to synthetic cannabinoids and 374 human exposures to synthetic cathinones from the last quarter of 2010 through December 31, 2013.

1The author is affiliated with the Cincinnati Children’s Hospital Medical Center, Cincinnati Drug and Poison Information Center, Cincinnati, Ohio.
INTRODUCTION

Area Description

The city of Cincinnati is 1 of 36 municipalities in Hamilton County, which is located in the southwest region of the State of Ohio along the Ohio River. Hamilton County is also home to 12 separate townships. The U.S. Census Bureau projections indicated there were 802,038 Hamilton County residents in 2012; this was a decrease of less than 1.0 percent from the previous projection in 2011. The U.S. Census Bureau estimations from the 2012 census showed 296,550 residents in the city of Cincinnati, a loss of 0.1 percent from the previous projection in 2010. The Cincinnati population distribution recorded from the 2010 projection included 49.3 percent White, 44.8 percent African-American, and 2.8 percent Hispanic. By comparison, residents of Hamilton County were 67.6 percent White, 25.8 percent African-American, and 2.7 percent Hispanic, according to the latest projection recorded in 2011.

Various factors were identified by law enforcement as influences on drug trafficking and substance abuse in the Cincinnati region and in the State of Ohio. Ground travel is the predominant source of drugs to the city of Cincinnati and the State. Many major thoroughfares pass through the State, making transport relatively easy across the State line. Law enforcement continued to identify over-the-road truckers as a source of bulk drug shipments into Cincinnati from interstate routes connecting through Indianapolis, Indiana. Most drug shipments coming from this particular route were identified as having originated from the Mexico border.

Cincinnati is within close proximity of the Cincinnati/Northern Kentucky International Airport to the south and the Dayton International Airport to the north. There are 175 public use airports, along with 669 privately owned/private use airports and heliports, throughout the State. Canada has become a source for drug traffic into Ohio as well. Smaller amounts of drugs were reported to be coming through these routes of travel into the State.

Data Sources

The primary sources of data/information for this report are as follows:

• **Treatment data** were provided by the Hamilton County Mental Health and Recovery Services Board for fiscal years (FYs) 2005–2009 and calendar years (CYs) 2010–2013 for publicly funded treatment programs within Hamilton County only. Primary drugs of use at admission were determined through billing data submitted by reporting agencies. Data are captured by group classification and not necessarily by specific drug type or route of administration. Data methodology capture, beginning in 2007, differed from previous reporting periods and does not provide for direct comparison to previous reports. Treatment data for 2007–2009 may be comparable, and those for 2010–2011 may be comparable, but they may not correlate with previous data since the timeframe of the latter data capture was calendar year rather than fiscal year data. Data for CY 2012 were provided by the Ohio Department of Alcohol and Drug Addiction Services and do not provide for direct comparison to previous data capture or reports. Data for CY 2013, while they will be comparable to CY 2012, are considered preliminary at the time of writing this report.

• **Poison control center data** were provided by the Cincinnati Drug and Poison Information Center (DPIC) for CYs 2005–2013. Only human case data captured for purposes of illustration of drug
exposures were reported. DPIC provides a 24/7 telephone hotline for drug and poison information, as well as management and treatment information of hazardous or toxic exposures for the public, health care professionals, businesses, and government officials. The information obtained from DPIC includes exposures to illicit substances (e.g., heroin, cocaine, and MDMA [3,4-methylenedioxymethamphetamine]), as well as prescription drugs used for purposes of intentional abuse or suicide. Data may also include intentional misuse or intentional use for unknown reason. All human exposure calls, regardless of exposure type, that referenced buprenorphine-containing pharmaceuticals were accessed for purposes of this report. Additional data regarding human exposures to buprenorphine-containing pharmaceuticals were obtained from the other two Ohio poison control centers—the Central Ohio Poison Control Center and the Northern Ohio Poison Control Center—for CYs 2007–2013. Additional data regarding human exposures to synthetic drugs of abuse, specifically synthetic cathinones and THC (tetrahydrocannabinol) homologs (synthetic cannabinoids), were provided for CYs 2010–2013.

- **Crime laboratory drug analyses data** for Hamilton County were provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA), for 2011–2013 and the Hamilton County Coroner’s Office for 2013. 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 2011–2013. Data for 2013 are provisional and subject to change.

- **Drug seizure data** were provided by the Cincinnati Regional Enforcement Narcotics Unit (RENU) for CYs 2006–2013.

- **Mortality data** were provided by the Hamilton County Coroner’s Office for CYs 2006–2013.

- **Drug purity and cost data** came from the DEA’s Cincinnati Resident Office for CYs 2008–2013.

- **Methamphetamine clandestine laboratory seizure data** were provided by the Ohio Bureau of Criminal Investigation (BCI) for FYs 2000–2013.

**DRUG ABUSE PATTERNS AND TRENDS**

**Cocaine/Crack**

While cocaine indicators had been declining from 2008 through 2012, there were some increases in indicators in 2013 that may indicate a resurgence of this drug in the region. Preliminary data for primary cocaine treatment admissions leveled off and accounted for only 8.3 percent of total admissions during CY 2013 (exhibit 1). The majority of these admissions involved individuals older than 35.

Poison control center data recorded a total of 29 cocaine (salt/crack) human exposure calls captured by the Cincinnati DPIC during 2013 (exhibit 2). All cases involved the intentional use of cocaine (salt/crack).

The Hamilton County Coroner’s Office recorded 77 deaths in which evidence of cocaine/crack use was documented by the Medical Examiner (ME) during 2013 (exhibit 3). This represented a 133-percent
increase from such deaths in 2010. Deaths were recorded in one of three categories: accidental, suicide, or homicide. Evidence of cocaine was not necessarily reported as cause of death.

The Cincinnati RENU removed more than 17,100 grams of cocaine from the streets of Cincinnati during 2013, representing an increase of 593 percent from the previous year (exhibit 4). Analysis of the purity of cocaine samples seized by the local DEA in 2013 showed that the purity of cocaine hydrochloride (powder cocaine) ranged from 19.2 to 80.1 percent (exhibit 5). Impurities detected in the submitted items included creatine and tetramisole (levamisole). Tetramisole was detected in 12 of 13 (92 percent) items submitted during 2013.

Of the 12,817 drug reports among items seized and analyzed by NFLIS laboratories for Hamilton County in 2013, 15.0 percent were identified as containing cocaine; this was a decrease of 4.1 percent from the previous year (exhibit 6).

**Heroin**

With persistent increases in abuse during 2013 and the previous 5 years, heroin was the number one illicit drug issue in Cincinnati in this reporting period, displacing both marijuana and cocaine. Heroin and prescription opioid abuse accounted for 35.6 percent (755 admissions) of all primary treatment admissions during CY 2013 (exhibit 1). The number of heroin and opioid admissions to treatment has been rising steadily since 2007, surpassing treatment admissions for cocaine in 2009 and admissions for both alcohol and marijuana in 2013. Slightly more than one-half of admissions for opioids were female, and more than 65 percent were between the ages of 18 and 34. More than 78 percent of those who cited heroin as a primary drug of abuse upon treatment entry reported injecting the drug.

Poison control center data showed that there were 103 heroin exposure calls related to intentional abuse reported during 2013, representing an increase of 33.7 percent from the 77 human exposure calls reported in 2011 (exhibit 2). The Hamilton County Coroner’s Office recorded 188 deaths with evidence of heroin abuse contributing to death during 2013 (exhibit 3). This number represented a 51.6-percent increase over the previous year and a 571-percent increase since 2008. The majority of the heroin-related deaths were ruled accidental in nature by the Coroner’s Office.

The Cincinnati RENU seized more than 15.5 kilograms of heroin during 2013, an increase of 90.6 percent from the previous year (exhibit 7). Laboratory analyses of heroin samples removed from the streets in Cincinnati during 2013 were found to contain cocaine as an adulterant.

Heroin accounted for 28.4 percent of reports among seized drug items analyzed by NFLIS laboratories in 2013. The proportion of heroin reports increased by 104 percent between 2010 (13.9 percent) and 2013 (exhibit 6). The purity of heroin varied greatly, ranging from 7.5 to 92.1 percent pure during 2013 (exhibit 5).

**Other Opiates/Opioids**

Primary admissions in CY 2013 for prescription opioid abuse were not separated from heroin users; together they accounted for 35.6 percent (755 admissions) of total admissions (exhibit 1). There was a slight predominance of females, 52.8 percent, among those entering treatment for primary prescription opioid abuse. The reported routes of administration of either sniffing (insufflation) or injection accounted for a total of 29.7 percent of these treatment admissions.
Poison control center data showed that hydrocodone and oxycodone pharmaceutical products were more likely to be abused than other opiates/opioids available (exhibit 8). There were a total of 270 exposure calls for intentional abuse, including suicide, of oxycodone products during CY 2013. The number of hydrocodone-combination narcotic exposures in 2013 for intentional abuse, including suicide, totaled 268, an 18.7-percent decrease from the previous year. The number of methadone cases recorded during 2013 was 33; this was a decrease of 31.2 percent from 2010 (exhibit 9). The number of oxymorphone cases recorded in 2013 was 14, a decrease of 17.6 percent from the previous year.

Among drug items analyzed by NFLIS laboratories in 2013, oxycodone accounted for 2.1 percent and hydrocodone represented 0.9 percent of all reports. Other opiates/opioids accounted for nearly 1.6 percent of the reports among analyzed drug items in 2013 (exhibit 6).

The Hamilton County Coroner’s Office recorded 107 deaths during 2013 that had evidence of prescription opioid use on the part of the decedent, representing a 10.8-percent decrease from the previous year (exhibit 3). In addition to these pharmaceutical opioid deaths, there were 18 deaths with measurable levels of methadone and 9 with fentanyl in 2013.

The reformulation of OxyContin® with added abuse deterrent technology, introduced in the fall of 2010, resulted in a shift in use patterns, since users found the drug harder to abuse. Several indicators showed a leveling off of oxycodone abuse in the 3 years following the reformulation. Qualitative sources and law enforcement previously described a shift from OxyContin® to Opana® (oxymorphone), as well as to heroin and immediate-release oxycodone products. It was expected that the reformulation of Opana® ER would result in another shift in opioid abuse patterns. Evidence of a decrease in Opana® abuse is beginning to emerge in poison control center data.

**Methamphetamine/Amphetamines**

Methamphetamine abuse indicators in the Cincinnati area and in the State of Ohio previously have been recorded as being low, but they began to show some increase in 2013 from previous years. Poison control data indicated a total of 27 intentional abuse exposures, including suicide, to methamphetamine reported in 2013, an increase of 80 percent from the previous year (exhibit 2).

Methamphetamine reports among drug items seized and analyzed by NFLIS laboratories in 2013 totaled 129, accounting for only 1.0 percent of the total drug reports (exhibit 6). This number represented a 118-percent increase from the previous year. Methamphetamine reports moved up in NFLIS rank from ninth to fifth from the first half to the end of 2013.

There were 953 methamphetamine incidents involving laboratories, dumpsites, and chemical/glass findings throughout Ohio reported in FY 2013. This represented a nearly 60-percent increase in methamphetamine sites reported from the previous year (exhibit 10). Law enforcement lost funding in February 2011 that provided needed money to clean up methamphetamine laboratory sites in Ohio, and it was expected that a lower number of sites would be reported as a result. Law enforcement indicated that many of the sites reported during both FYs 2012 and 2013 involved finding the remains of the “one pot” or “shake-n-bake” method of methamphetamine manufacture.

On November 3, 2009, Ohio voters approved a constitutional amendment to allow casinos to be built and operated in four cities in the State—Cincinnati, Cleveland, Columbus, and Toledo. To date,
all four casinos have opened, the last being the Cincinnati casino (opened March 5, 2013). Law enforcement officials in Cincinnati expressed concern at the time that an influx of Mexican-produced methamphetamine may be trafficked in the Cincinnati area, and other areas in the State of Ohio, after the casinos open and operate within the State. Law enforcement reported seizing Mexican-made crystal methamphetamine in 2013. Methamphetamine will continue to be an area for future monitoring.

Marijuana

Marijuana continued to be a primary drug problem in the Cincinnati region in 2013, and it was reported as both widely available and widely used. Marijuana accounted for 29.2 percent (618 admissions) of total treatment admissions in CY 2013 (exhibit 1). The majority of those entering treatment and citing marijuana as a primary drug of abuse were male (75 percent), and 45.6 percent of marijuana treatment admissions were age 24 or younger.

Poison control center data reported 76 human exposure cases involving intentional abuse of marijuana, including suicide, in 2013 (exhibit 2). Marijuana/cannabis was the most frequently reported drug identified among items analyzed by NFLIS laboratories, representing 35.6 percent of the total drug reports for 2013 (exhibit 6). The Cincinnati RENU recorded seizures of nearly 764 kilograms of marijuana during 2013; this was an increase of 226 percent from the previous year (exhibit 11). Of note, the observation was made that there is an increasing array of vaporizer (“vape”) pens available for purchase at local head shops for smoking different kinds of marijuana concentrates (e.g., “wax,” “shatter,” butane hash oil [BHO]). While Ohio has not joined in as a medical marijuana State, there is a growing impact as a result of legislation in other States influencing the trafficking of marijuana across the State.

Benzodiazepines

Benzodiazepine reports among drug items seized and analyzed by NFLIS laboratories in 2013 totaled 1.8 percent of total reports (exhibit 6). Poison control center data showed 873 intentional human exposure cases reported with benzodiazepine use in 2013; 32.9 percent of the cases involved alprazolam, and another 36.4 percent involved clonazepam. Overall, there was a decrease of 12.2 percent for poison control center cases involving benzodiazepines in 2013 from the previous year.

MDMA

Indicators for MDMA abuse continued to be present at a low level in 2013. Poison control center data reported a total of 11 intentional abuse exposures to MDMA for 2013; this was a 56-percent decrease from 2011.

There were 10 MDMA reports among drug items seized and analyzed by NFLIS laboratories in 2013, accounting for less than 0.1 percent of total reports (exhibit 6). BZP (1-benzylpiperazine), a piperazine derivative sold as MDMA in the United States, accounted for 34 reports among drug items submitted to NFLIS laboratories for analysis (representing 0.3 percent of total reports). In 2013, another compound, similar to phencyclidine (PCP), was sold as MDMA in Cincinnati. This derivative of PCP, benocyclidine (BCP), accounted for 71 reports among analyzed NFLIS items (representing 0.6 percent of total reports) (exhibit 6).
Emerging Patterns

Patterns of abuse of buprenorphine-containing pharmaceuticals began to become more evident in 2011, and while there was some decline in 2012, there was a measurable increase in 2013. There were 77 buprenorphine reports among drug items seized and analyzed in NFLIS laboratories in 2013 (exhibit 6), ranking buprenorphine as eighth among all drug reports from drug items seized and analyzed in Hamilton County for 2013.

Human exposure data collected from all three Ohio poison control centers revealed a total number of 168 buprenorphine-related cases reported in 2013. This was a 5.1-percent decrease from the previous year (exhibit 12). Drug identification calls to a poison control center act as a qualitative measure of diversion of a pharmaceutical drug to the street. In 2013, 931 identification calls were received by the DPIC for buprenorphine-containing pharmaceutical; this represented a 34.7-percent increase from the previous year. Buprenorphine remains an area for increased education about storage practices, as 39 percent of the human exposures reported to poison control centers in Ohio involved children younger than 3. In addition, 37 percent of the human exposures involved intentional misuse or abuse of buprenorphine; this was a 4-percent increase from the previous year and a 16-percent increase from 2010.

Synthetic cannabinoid products were heavily marketed during 2010, with adverse events related to use being reported to poison control centers throughout the United States. The Cincinnati DPIC recorded 16 calls related to synthetic cannabinoids during 2010, 117 calls during 2011, 52 calls in 2012, and an additional 20 calls in 2013 (exhibit 13). A total number of 205 exposures were reported to the DPIC for these products to date. Commonly reported symptoms included tachycardia, agitation, hallucinations, confusion, drowsiness, and dilated pupils. The Synthetic Drug Abuse Prevention Act of 2012, passed in June 2012, scheduled several synthetic cannabinoids as Schedule I drugs. There were 18 reports among drug items seized and analyzed by NFLIS laboratories in Hamilton County identified as synthetic cannabinoids in 2011, 11 reported in 2012, and 151 in 2013. Those identified included AM-2201, JWH-250, and RCS-4 in 2011; AM-2201, JWH-018, JWH-122, and JWH-250 in 2012; and XLR-11, PB-22, 5F-PB-22, AB-Fubinaca, UR-144, AM-2201, AKB48, JWH-018, and RCS-4 in 2013.

Human exposures to synthetic cathinone products were recorded by the poison control centers during the last quarter of 2010 and CYs 2011, 2012, and 2013. The Cincinnati DPIC recorded 2 exposures in 2010, 329 exposures during 2011, 31 in 2012, and 12 in 2013 (exhibit 13). Symptoms commonly reported included tachycardia, intense visual and auditory hallucinations, agitation, hypertension, and seizures. The Governor of the State of Ohio signed into law a bill banning six of the substituted cathinones; it went into effect October 17, 2011. The six substituted cathinones banned included mephedrone (4-methylmethcathinone), methyleneoxy (N-methyl-3,4-methylenedioxyxymethcathinone), MDPV (3,4-methylenedioxypyrovalerone), 4-MMC (4-methoxymethcathinone), 3-FMC (3-fluoromethcathinone), and 4-FMC (4-fluoromethcathinone). There were 6 drug reports of synthetic cathinones among drug items seized and analyzed by NFLIS laboratories in Hamilton County in 2010, 4 in 2011, 16 in 2012, and 22 in 2013. The synthetic drugs of abuse will be an area for continuous monitoring, as these products have been associated with a high risk for harm to humans.
ACKNOWLEDGMENTS

The author would like to thank those individuals and agencies that contribute alcohol- and drug-related data, statistics, and information that are used to form these reports. Cincinnati’s contribution to the Community Epidemiology Work Group would be vastly limited without the cooperation of local, State, and Federal agencies. In particular, the author thanks Dr. Bill Ralston and Terry Daly (Hamilton County Coroner’s Office), Frank Younker and Patricia A. Brown (DEA, Cincinnati Resident Office), Erik Stewart (Hamilton County Mental Health and Recovery Services Board), Sanford Star and Laura Potts (Ohio Department of Alcohol and Drug Addiction Services), Emily Kreager (Ohio Bureau of Criminal Investigation), Lieutenant Brad Winall (Cincinnati Regional Narcotics Enforcement Unit), Commander John Burke (Warren County Drug Task Force), and participating members of the Ohio poison control centers.

For inquiries regarding this report, contact Jan Scaglione, B.S., M.T., Pharm.D., D.ABAT, Cincinnati Children’s Hospital Medical Center, Cincinnati Drug and Poison Information Center, 3333 Burnet Ave., ML-9004, Cincinnati, Ohio 45229, Phone: 513–636–5060, Fax: 513–636–5072, E-mail: Jan.Scaglione@cchmc.org.
Exhibit 1.  Percentage of Primary Treatment Admissions, by Primary Drug of Abuse, Hamilton County: FYs\(^1\) 2005–2009 and CYs\(^2\) 2010–2013\(^3,4\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Alcohol</th>
<th>Cocaine/Crack</th>
<th>Heroin/Rx Opioids</th>
<th>Marijuana</th>
<th>Amphetamine (\times 10^5)</th>
<th>Benzodiazepines (\times 10^5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>40.6</td>
<td>18.6</td>
<td>10.3</td>
<td>23.1</td>
<td>4.3</td>
<td>3.0</td>
</tr>
<tr>
<td>2006</td>
<td>37.0</td>
<td>20.0</td>
<td>11.7</td>
<td>23.1</td>
<td>3.0</td>
<td>2.6</td>
</tr>
<tr>
<td>2007</td>
<td>35.9</td>
<td>19.0</td>
<td>11.6</td>
<td>25.1</td>
<td>2.8</td>
<td>4.8</td>
</tr>
<tr>
<td>2008</td>
<td>39.4</td>
<td>17.0</td>
<td>13.8</td>
<td>28.6</td>
<td>2.6</td>
<td>5.5</td>
</tr>
<tr>
<td>2009</td>
<td>34.6</td>
<td>13.1</td>
<td>15.1</td>
<td>29.8</td>
<td>2.1</td>
<td>4.5</td>
</tr>
<tr>
<td>2010</td>
<td>33.0</td>
<td>10.4</td>
<td>20.5</td>
<td>29.3</td>
<td>1.7</td>
<td>6.8</td>
</tr>
<tr>
<td>2011</td>
<td>30.7</td>
<td>9.1</td>
<td>24.2</td>
<td>30.4</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>2012</td>
<td>35.3</td>
<td>8.0</td>
<td>25.8</td>
<td>29.4</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2013</td>
<td>26.2</td>
<td>8.3</td>
<td>35.6</td>
<td>29.2</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

\(^1\)FY=July–June.  
\(^2\)CY=January–December.  
\(^3\)Treatment data methodology from 2007 to 2009 differed from the previous years; therefore, direct comparison to years prior to 2007 cannot be made. Because data for 2005–2009 were captured as fiscal year, and data for 2010–2011 were captured as calendar year, the data are not strictly comparable. Direct comparison between years should not be made.  
\(^4\)Numbers for 2013 were preliminary at press time.  
\(^5\)These drugs are multiplied by a factor of 10. 

SOURCE: Hamilton County Mental Health and Recovery Services Board, Ohio Department of Alcohol and Drug Addiction Services

SOURCE: Cincinnati Drug and Poison Information Center
Exhibit 3. Number of Deaths, by Drugs Detected at Death, Hamilton County: 2006–2013


SOURCE: Hamilton County Coroner’s Office

SOURCE: Cincinnati Regional Enforcement Narcotics Unit

<table>
<thead>
<tr>
<th>Drug</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Powder Cocaine</td>
<td>45.8</td>
<td>29.1</td>
<td>27.7</td>
<td>18.6</td>
<td>60.9</td>
<td>19.2</td>
</tr>
<tr>
<td>Crack Cocaine</td>
<td>39.2</td>
<td>39.4</td>
<td>24.1</td>
<td>70.2</td>
<td>31.5</td>
<td>—</td>
</tr>
<tr>
<td>Heroin</td>
<td>24.6</td>
<td>15.7</td>
<td>4.2</td>
<td>15.4</td>
<td>7.5</td>
<td>—</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>49.3</td>
<td>46.1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

1. Purity analysis represented by an average percent of all submitted items.
2. Impurities detected: benzocaine, tetramisole, diltiazem, sodium bicarbonate, and caffeine.
3. Purity analysis represented by range of purities analyzed for all items submitted.
4. Impurities detected: tetramisole, diltiazem, ibuprofen, dimethylsulfone, diphenhydramine, and heroin.
5. Impurities detected: tetramisole, heroin, caffeine, and phenacetin.
6. Impurities detected: tetramisole and creatine.
7. Impurities detected: caffeine, methorphan isomer/salt, acetaminophen, lidocaine, phenobarbital, quetiapine, quinine, cocaine, diphenhydramine, alprazolam, niacinamide, chloroquine, dextromethorphan, and hydroxyphynamatate.
8. Impurities detected: acetaminophen, caffeine, chloroquine, methorphan isomer/salt, lidocaine, alprazolam, diphenhydramine, quetiapine, and cocaine.

SOURCE: Cincinnati Resident Office, DEA

### Exhibit 6. Number and Percentage of Total Reports, for Selected Drugs, Among Drug Items Analyzed by Forensic Laboratories, Hamilton County: 2011–2013

<table>
<thead>
<tr>
<th>Drug</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
</tr>
<tr>
<td>Cocaine</td>
<td>3,022</td>
<td>27.7</td>
<td>1,998</td>
</tr>
<tr>
<td>Marijuana/Cannabis</td>
<td>4,284</td>
<td>39.3</td>
<td>3,975</td>
</tr>
<tr>
<td>Heroin</td>
<td>2,238</td>
<td>20.5</td>
<td>3,278</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>324</td>
<td>3.0</td>
<td>304</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>26</td>
<td>0.2</td>
<td>59</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>167</td>
<td>1.5</td>
<td>125</td>
</tr>
<tr>
<td>Other Opiates/Opioids</td>
<td>188</td>
<td>1.7</td>
<td>144</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>280</td>
<td>2.6</td>
<td>220</td>
</tr>
<tr>
<td>MDMA (3,4-Methylenedioxy-</td>
<td>32</td>
<td>0.3</td>
<td>13</td>
</tr>
<tr>
<td>Methamphetamine)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>34</td>
<td>0.3</td>
<td>31</td>
</tr>
<tr>
<td>BZP (1-Benzylpiperazine)</td>
<td>31</td>
<td>0.3</td>
<td>48</td>
</tr>
<tr>
<td>Benocyclidine (BCP)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Total reports in items analyzed in 2011=10,893.
2. Total reports in items analyzed in 2012=10,420.
3. Total reports in items analyzed in 2013=12,817.
4. Includes buprenorphine (55), methadone (38), morphone (37), oxymorphone (18), tramadol (15), codeine (13), hydromorphone (5), fentanyl (4), dextromorphoxyn (2), and 6-monoacetaltorphine (1).
5. Includes buprenorphine (41), morphone (31), methadone (31), codeine (15), hydromorphone (12), oxymorphone (8), and dextroprophosphate (1).
6. Includes buprenorphine (77), methadone (36), morphone (32), codeine (24), tramadol (15), oxymorphone (7), hydromorphone (6), and fentanyl (5).
7. Includes alprazolam (141), clonazepam (73), diazepam (54), lorazepam (10), and temazepam (2).
8. Includes alprazolam (109), clonazepam (54), diazepam (53), and lorazepam (4).
9. Includes alprazolam (103), clonazepam (66), diazepam (46), lorazepam (15) and temazepam (1).

SOURCE: NFLIS, DEA

![Graph showing seizures of Heroin, in Grams, Cincinnati: 2006–2013.](image)

SOURCE: Regional Enforcement Narcotics Unit

Exhibit 8. Number of Human Exposure Cases, for Select Drugs, Cincinnati: 2005–2013

![Graph showing number of human exposure cases, for select drugs, Cincinnati: 2005–2013.](image)

SOURCE: Cincinnati Drug and Poison Information Center

```
2005  2006  2007  2008  2009  2010  2011  2012  2013
Fentanyl    23    39    32    44    29    30    27    12    15
Methadone   80    71    92    69    64    48    43    36    33
Morphine    42    14    36    59    30    50    40    41    36
Oxymorphone 0      0     5     8    13    20    37    17    14
```

SOURCE: Cincinnati Drug and Poison Information Center

Exhibit 10. Number of Methamphetamine Sites,1 Ohio: FYs 2000–20132

```
Number of Laboratory Sites Discovered
36  96  135  340  456  300  348  359  375  599  953
```

1Includes laboratories, dumpsites, and chemical/glass/equipment findings.
2FY=July to June.
3Loss of grant money for cleanup in February 2011 may reflect underreporting of methamphetamine laboratories discovered.

SOURCE: Ohio Bureau of Criminal Investigation

Exhibit 12. Number of Human Exposures and Drugs Identified as Buprenorphine by Poison Control Centers (PCCs), Cincinnati and Ohio: 2007–2013

SOURCE: Cincinnati Regional Enforcement Narcotics Unit

SOURCES: Central Ohio Poison Control Center, Northern Ohio Poison Control Center, and Cincinnati Drug and Poison Information Center
Exhibit 13. Number of Human Exposures to Synthetic Cathinones and Synthetic Cannabinoids, Cincinnati: 2010–2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Synthetic Cathinones</th>
<th>Synthetic Cannabinoids</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>2011</td>
<td>117</td>
<td>329</td>
</tr>
<tr>
<td>2012</td>
<td>31</td>
<td>52</td>
</tr>
<tr>
<td>2013</td>
<td>12</td>
<td>20</td>
</tr>
</tbody>
</table>

Data are for the last quarter of 2010 and CYs 2011–2013.

SOURCE: Cincinnati Drug and Poison Information Center