National Drug Early Warning System (NDEWS) Sentinel Community Site Profile 2015: Wayne County (Detroit Area)
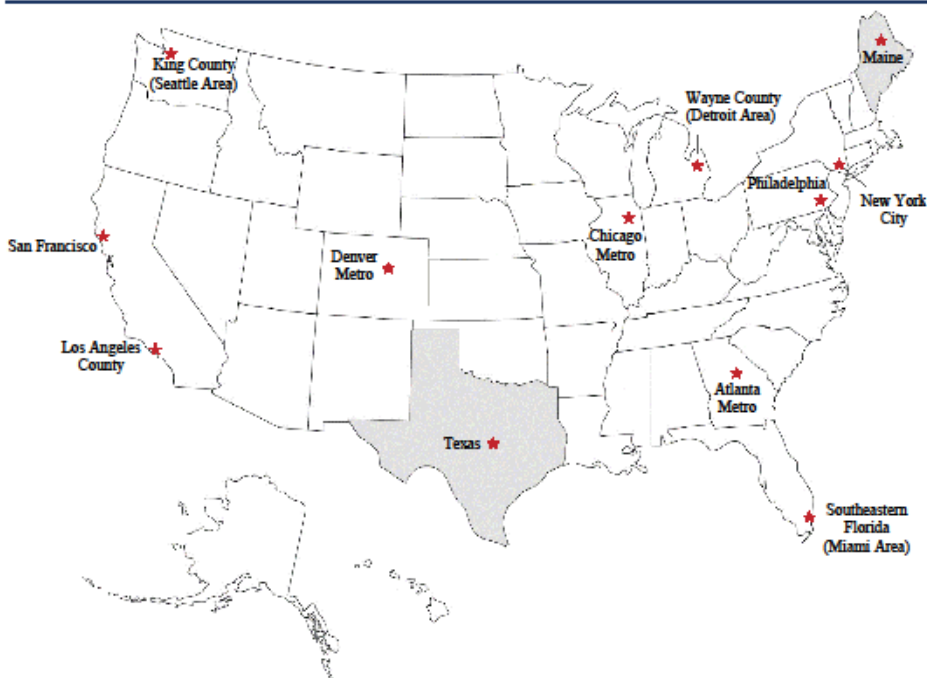
August 2015

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National Drug Early Warning System (NDEWS) Sentinel Community Site Profile Overview

The National Drug Early Warning System (NDEWS) was launched in 2014 with the support of the National Institute on Drug Abuse. The Center for Substance Abuse Research (CESAR) at the University of Maryland manages the NDEWS Coordinating Center and has recruited a team of nationally recognized experts to collaborate on building NDEWS. During 2015, 12 Sentinel Community Sites (SCS) were established, each with an expert Sentinel Community Epidemiologist (SCE). This inaugural Sentinel Community Site Profile contains three sections:

◊ The *Profile Snapshot* presents selected indicators of substance use, consequences, and availability;

◊ The *Drug Use Patterns and Trends* contains the SCE's review of important findings and trends; and

◊ The *Appendix Data Tables* contains a set of data tables prepared by Coordinating Center staff and disseminated to each SCE for review in preparing their profiles.

This entire Profile necessarily relies on using a variety of data sources produced by governmental and local agencies and these sources often measure geographic areas that differ from the intended catchment area of a Sentinel Site. For example, some surveys measure statewide patterns while others provide county level estimates. Wherever appropriate, a note is provided specifying the area covered by the findings presented.

The Annual Profiles for the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at www.ndews.org.
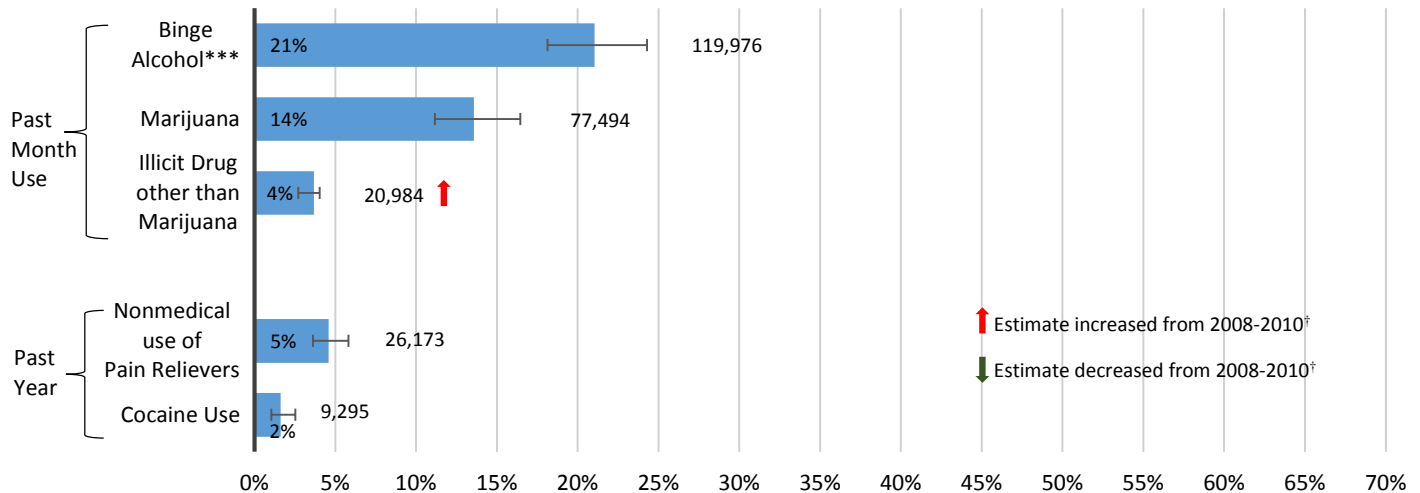
National Drug Early Warning System (NDEWS)
Wayne County (Detroit Area) Sentinel Community Site
Profile Snapshot, 2015

Substance Use

National Survey on Drug Use and Health (NSDUH): Survey of U.S. Population*

Persons 12+ Years Reporting Selected Substance Use, Wayne County (Detroit Area) Region^, 2010-2012

Estimated Percent, 95% Confidence Interval, and Estimated Number of Persons**

Past Month Use
- Binge Alcohol*** — 21% — 119,976
- Marijuana — 14% — 77,494
- Illicit Drug other than Marijuana — 4% — 20,984 ↑

Past Year
- Nonmedical use of Pain Relievers — 5% — 26,173
- Cocaine Use — 2% — 9,295

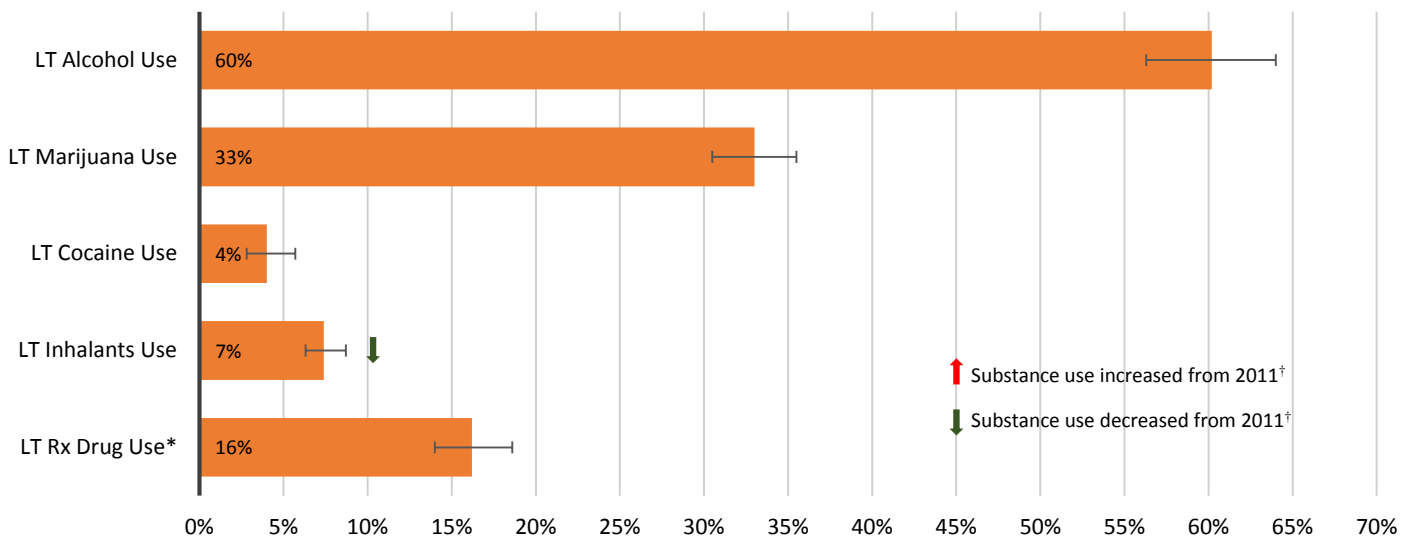↑ Estimate increased from 2008-2010†
↓ Estimate decreased from 2008-2010†

*U.S. Population: U.S. civilian non-institutionalized population. ^Wayne County (Detroit Area) Region: NSDUH Detroit City (Part of Wayne County). **Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (570,227) from Table C1 of the NSDUH Report. ***Binge Alcohol: Defined as drinking five or more drinks on the same occasion. †Statistically significant change: p<0.05.
Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on 2010, 2011, and 2012 NSDUHs.

Youth Risk Behavior Survey (YRBS): Survey of Student Population

Public High School Students Reporting Lifetime (LT) Use of Selected Substances, Michigan, 2013

Estimated Percent and 95% Confidence Interval

- LT Alcohol Use — 60%
- LT Marijuana Use — 33%
- LT Cocaine Use — 4%
- LT Inhalants Use — 7% ↓
- LT Rx Drug Use* — 16%

↑ Substance use increased from 2011†
↓ Substance use decreased from 2011†

*LT Rx Drug Use: Defined as ever took prescription drugs without a doctor's prescription.
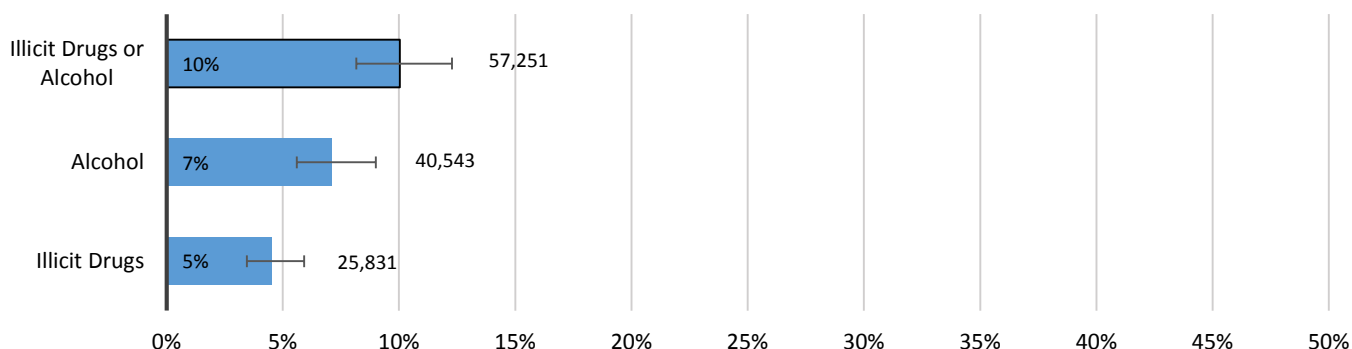†Statistically significant change: p<0.05 by t-test.
Source: Adapted by the NDEWS Coordinating Center from data provided by CDC, 2001-2013 high school YRBS data.

Substance Use Disorders and Treatment

*National Survey on Drug Use and Health (NSDUH): Survey of U.S. Population**

Dependence or Abuse** in Past Year Among Persons 12+ Years, Wayne County (Detroit Area)^, 2010-2012

Estimated Percent, 95% Confidence Interval, and Estimated Number of Persons***

Category	Percent	Estimated Number
Illicit Drugs or Alcohol	10%	57,251
Alcohol	7%	40,543
Illicit Drugs	5%	25,831

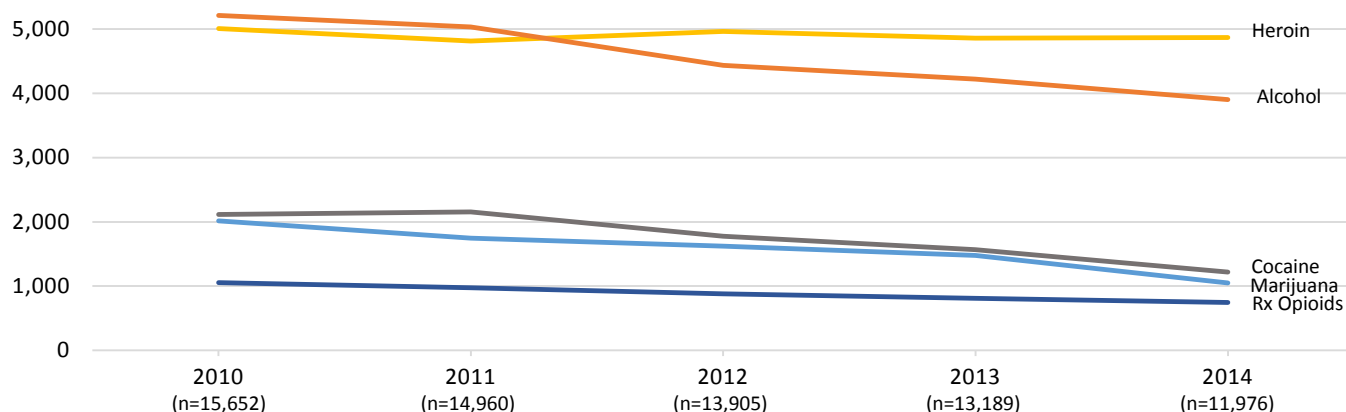(x-axis: 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%)

*U.S. Population: U.S. civilian non-institutionalized population. **Dependence or Abuse: Based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. ^Wayne County (Detroit Area) Region: NSDUH Detroit City (Part of Wayne County). ***Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (570,227) from Table C1 of the NSDUH Report.
Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on 2010, 2011, and 2012 NSDUHs.
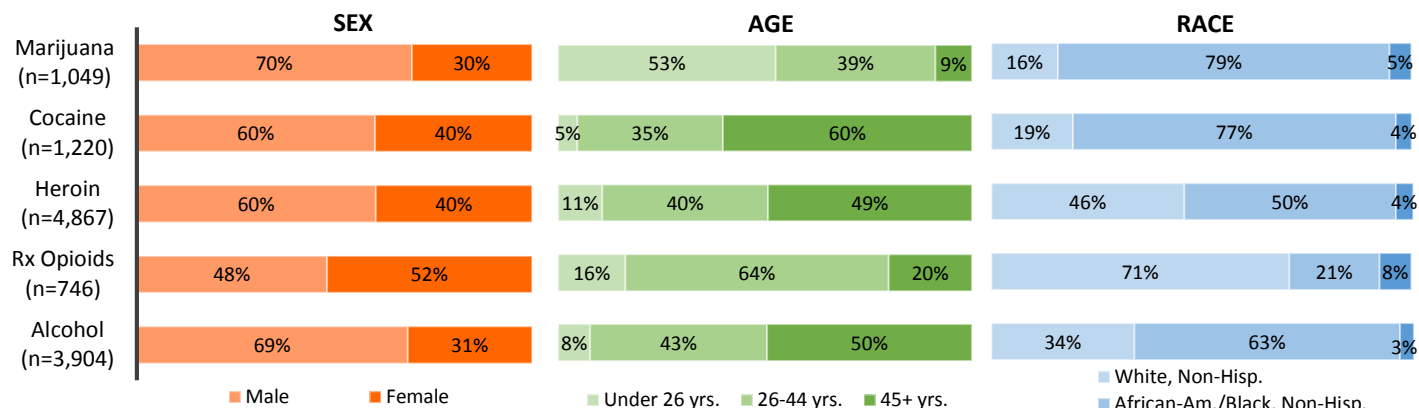
Treatment Admissions Data from Local Sources

Trends in Treatment Admissions*, by Primary Substance of Abuse, Wayne County (Detroit Area), 2010-2014

(n = Number of Treatment Admissions)

Lines: Heroin, Alcohol, Cocaine, Marijuana, Rx Opioids

Year	2010	2011	2012	2013	2014
	(n=15,652)	(n=14,960)	(n=13,905)	(n=13,189)	(n=11,976)

Demographic Characteristics of Treatment Admissions*, Wayne County (Detroit Area), 2014

	SEX		AGE			RACE		
	Male	Female	Under 26 yrs.	26-44 yrs.	45+ yrs.	White, Non-Hisp.	African-Am./Black, Non-Hisp.	Other
Marijuana (n=1,049)	70%	30%	53%	39%	9%	16%	79%	5%
Cocaine (n=1,220)	60%	40%	5%	35%	60%	19%	77%	4%
Heroin (n=4,867)	60%	40%	11%	40%	49%	46%	50%	4%
Rx Opioids (n=746)	48%	52%	16%	64%	20%	71%	21%	8%
Alcohol (n=3,904)	69%	31%	8%	43%	50%	34%	63%	3%

*Treatment Admissions: Includes 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. The total number of admissions decreased over time due to changes in capacity. However, a decline in numbers for a particular drug can translate into an absolute increase in proportion of treatment clients. Percentages may not sum to 100 due to rounding.
Source: Data provided by the Wayne County (Detroit Area) NDEWS SCE and 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.

Law Enforcement Drug Seizures

**Drug Reports* for Items Seized by Law Enforcement in Wayne County (Detroit Area) in 2014
National Forensic Laboratory Information System (NFLIS)**

Top 10 Drug Reports and Selected Drug Categories

Drug Identified	Number (#)	Percent of Total Drug Reports (%)
TOTAL Drug Reports	**7,762**	**100%**
Top 10 Drug Reports		
Cannabis	3,916	50.5%
Cocaine	1,400	18.0%
Heroin	1,095	14.1%
No Controlled Drug Identified	288	3.7%
Hydrocodone	245	3.2%
Alprazolam	196	2.5%
Oxycodone	97	1.2%
Amphetamine	61	0.8%
N-benzylpiperazine (BZP)	50	0.6%
3,4-methylenedioxymethamphetamine (MDMA)	46	0.6%
Top 10 Total	**7,394**	**95.3%**
Selected Drug Categories		
Piperazines	55	0.7%
Synthetic Cathinones	27	0.3%
Fentanyl & Fentanyl Analogs	7	0.1%
2C Phenethylamines	6	0.1%
Tryptamines	2	0.0%
Synthetic Cannabinoids	1	0.0%

Top 5 Drugs, by Selected Drug Category
(% of Category)**

Piperazine
(n=55)

BZP (91%)
TFMPP (9%)

Synthetic Cathinones
(n=27)

Methylone (37%)
Ethylone (30%)
4-MEC (22%)
MDPV (7%)
Pentedrone (4%)

Fentanyl & Fentanyl Analogs
(n=7)

Fentanyl (100%)

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

**Percentages may not sum to 100 due to rounding.

Source: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit, May 2015.

National Drug Early Warning System (NDEWS)
Wayne County (Detroit Area) Sentinel Community Site
Drug Use Patterns and Trends, 2015

Cynthia L. Arfken, Ph.D.

SCS Highlights

- Heroin continues to be the primary drug of abuse in Michigan and Wayne County. Deaths and treatment admissions rates are high and costly.

- Cocaine, while declining, has not disappeared but treatment admissions seem to be concentrated among older Black clients.

- Methamphetamine is also increasing but accounts for far fewer treatment admissions than other drugs of abuse.

- The largest change in 2014 compared to 2013 was a decline in the proportion of Schedule III prescriptions filled due to the rescheduling of hydrocodone.

- There were no substantial new patterns of drug use or new emerging drugs.

Area Description

The two catchment areas are the state of Michigan and within the state, Wayne County. Michigan is located in the Northern part of the continental US and shares a 721-mile border with Ontario, Canada. There are land crossings at Detroit (a bridge and a tunnel), Port Huron, and Sault Ste. Marie and water crossings through three Great Lakes and the St. Lawrence Seaway which connects to the Atlantic Ocean. All of the border crossings rank among the top 10 highest volume crossings between the two countries. Michigan has an area of 96,716 square miles with a population of 9,886,096, making it the 9th most populous and 16th most densely populated state. Michigan was the only state to lose population from 2000 to 2010.

Within the state, Wayne County is located in the Southeast, near the border with Canada and the land border with Ohio. It the most populous county (1,804,507); however, the current population is declining from its peak in 1970 at 2.65 million. Wayne County is home to the state's largest city, Detroit, which just emerged from the largest municipal bankruptcy in US history. Detroit's population also declined from a peak of 1.8 million in 1950 to 688,701 in 2013. This steep decline has resulted in ongoing problems of blighted property and vacant land.

Wayne County has an international airport (ranked 17th worldwide in number of aircraft operations), international bridge and tunnel crossing (to Windsor, Canada), is on the St. Lawrence Seaway shipping routes, and at the intersection of major east-west and north-south interstate highways. Drugs can easily enter the state via multiple pathways. Additionally, the state has substantial rural areas and, within urban areas, vacant housing to provide space for growing marijuana or packaging synthetic drugs.

Demographically, the state has an aging population (the median age is 39.1) with a younger population in Wayne County (median of 37.6 years old). The population for the state is predominately non-Hispanic Whites (76.3%) but less so in Wayne County (49.7%). However, the African American population represents 13.9% of the State's and 39.8% of Wayne County's population. The proportion of the population foreign-born or speaking a language other than English is low.

Economically, the state and county have endured above-average unemployment since 2001 and high poverty rates but recent data suggest similar or even better unemployment rates than the national rate. Educational levels are also low and the media reports that there is out-flow of college educated youth to other states.

Changes in Legislation

Specific policies affecting drug use include the statewide approval of medical marijuana in 2008. At the local level, several municipalities have decriminalized possession of small amounts of marijuana, including Detroit in 2012. Michigan scheduled compounds used in synthetic cannabinoids and cathinones in 2012. However, Michigan lagged in approving the wider use of naloxone and Good Samaritan rules. Only in late 2014 were they approved, with additional clarifying laws signed in 2015.

Naloxone has been dispensed to a limited extent at needle exchanges, one of which is operated by a nonprofit organization in Detroit.

Drug Use Patterns and Trends

OVERVIEW

Heroin continues to be the primary drug of abuse in Michigan and Wayne County. Deaths and treatment admissions are high and costly. The recent approval of naloxone and Good Samaritan Laws should help ameliorate the burden. The lack of an increase in treatment admissions among young people (although still too high) is good news for prevention efforts. Cocaine, while declining, has not disappeared but treatment admissions seem to be concentrated among older Black clients. Methamphetamine is also increasing but accounts for far fewer treatment admissions than other drugs of abuse. The largest change in 2014 compared to 2013 was a decline was in the proportion of Schedule III prescriptions filled due to the rescheduling of hydrocodone.

COCAINE

The number of Wayne County drug-associated deaths with laboratory confirmed cocaine detected decreased by 30.5% from 2012 to 2014. The number of human exposure calls to Michigan Poison Control also declined, from 189 to 152 (decrease of 19.6%). Treatment admissions for cocaine as the primary drug of abuse declined for Wayne County and the state of Michigan. However, cocaine was still the third most common primary drug of abuse at admission at the county level and fifth at the state level. People admitted with the primary drug of cocaine were most likely to smoke it; at the state level it was 79.6% and at the county level it was 90.7%. Those who were admitted to treatment were more likely to be Black and older than for other drugs of abuse. For the statewide Youth Risk Behavior Survey (YRBS), lifetime use of cocaine was significantly higher among male than female students and among Hispanic than White or Black students. According to the National Survey on Drug Use and Health (NSDUH), 1.33% of people 12 or older in the state reported ever using cocaine. Cocaine was the second ranked drug identified in reports for items seized and analyzed in the National Forensic Laboratory Information System (NFLIS) database for 2014; it accounted for 32.1% of items analyzed across the state and 18.0% in Wayne County. Wayne County accounted for 32.1% of cocaine items analyzed statewide.

HEROIN

The number of Wayne County drug-associated deaths with laboratory confirmed heroin detected increased by 8.2% from 2012 to 2014 and surpassed the number of deaths for other illegal drugs. For both the state and the county, treatment admissions with the primary drug of heroin accounted for a substantial and increasing proportion. In 2014, heroin was the second most common drug reported at admission at the state level and the first at the county level. The state reports that it spent a record amount on methadone treatment ($17 million) in FY 2014. The previous record was $11 million in FY 2013. The proportion of treatment admissions injecting heroin was higher for state admissions (74.7%) than for the county (53.6%). During the past 3 years, there has not been an increase in the proportion of admissions among young people, in contrast to changes at the state level from 2003 to 2008. For the

statewide YRBS, lifetime use of heroin was low and there was no statistically significant change over the last 2 time periods. It was statistically more prevalent among Hispanic students than among either White or Black students. Male students were also more likely to report ever trying heroin than female students. The number of human exposure calls to the Michigan Poison Control was lower in 2014 than 2013 (decrease of 25.5%) although the number still exceeds that in 2012 (n=165). For both the county and the state, heroin was the 3rd ranked drug identified in reports for items seized and analyzed in NFLIS. For the state, it accounted for 31.5% of items and for the county it accounted for 14.1% of items analyzed. Overall, Wayne County accounted for 31.5% of heroin items analyzed statewide, even though the county has 17.9% of the population.

MARIJUANA

The number of medical marijuana certificates declined from a peak of 118,368 in 2013 to 96,408 in 2014, possibly suggesting that people are not viewing the certificate as legal protection or as necessary as in past years. Treatment admissions, traditionally driven by legal pressure, declined over time at both the state and county level. Admissions with the primary drug of abuse of marijuana still had the youngest age distribution. At the county level, people admitted were predominately Black but at the state level, the majority were White. Use at the high school level as reported by the YRBS showed no change over time, either for current or lifetime use. Current use was more common among male than female students and among Hispanic than White or Black students. The number of calls to Poison Control increased slightly, from 215 in 2013 to 222 in 2014. However, there were 264 calls in 2012. For people 12 or older in the state, 8.74% reported using marijuana in the past month in the NSDUH. Marijuana is the most common drug identified in reports for items seized and analyzed in NFLIS at both the state (47.9% of items) and county level (50.5% of items). Wayne County accounted for 23.2% of marijuana items analyzed statewide.

METHAMPHETAMINE

Methamphetamine is the sixth leading primary drug of abuse at treatment admission at the state level and seventh for the county (n=24 admissions). This compares with only 5 admissions for the county in 2010. The number of admissions for methamphetamine has increased every year from 2011. At both the state and county level, the people admitted with methamphetamine as the primary drug of abuse are most likely to be non-Hispanic Whites. At the state level, the number of exposure calls to Poison Control for methamphetamine has declined by 25.8%. For the 2013 YRBS, Hispanic students were more likely to report lifetime use compared to White or Black students. Male students were also more likely to have used methamphetamine compared to female students. In the 2014 NFLIS, methamphetamine ranked fifth for the state (3.7% of items) and 10th for the county (0.4% with 34 items). Wayne County accounted for 2.6% of methamphetamine items analyzed statewide.

PRESCRIPTION OPIOIDS AND OTHER MEDICATIONS

The number of prescriptions filled and number of units dispensed increased from 2007 to 2012. 2013 was the first year when the number of prescriptions filled fell from the previous year (-0.3%) but the number of units dispensed continued to climb. 2014 saw small growth. The number of prescriptions and number of units dispensed for Schedule II medications saw an increasing proportion of all medications (e.g., 17.1% of prescriptions in 2007 to 19.9% in 2011) that jumped in 2014 to 51.9% of prescriptions and 52.3% of units

dispensed. Schedule III medications fell from 39.6% of prescriptions in 2013 to 7.4% in 2014. One medication, hydrocodone, has accounted for between 29.4% (2008) and 34.8% (2011 and 2012) of all prescriptions for scheduled medications filled across the state. However, since 2012 the number of prescriptions filled for hydrocodone has decreased, with a one year change from 2013 to 2014 of 4.5%.

Misuse of prescription medications was only added to the Michigan YRBS in 2013 so no trends are available. However it was one of the few drugs where there were no gender differences in lifetime use. Both Hispanic and non-Hispanic White students reported higher lifetime misuse of prescription medications than Black students. The number of Poison Control Calls for hydrocodone increased over time while those for oxycodone decreased. Treatment admissions declined in Wayne County (although there was a slight increase in the proportion of admissions with the primary drug of abuse of prescription opioids from 2013 to 2014). At the state level, the number and proportion of admissions fell. Similar to methamphetamine, the people admitted were predominately White at the state and county level. For people 12 or older in the state, 5.14% reported ever misusing pain relievers in the NSDUH.

The most dramatic finding with regards to opioids was the increase in drug-associated deaths with laboratory confirmed fentanyl detected. Over the 3 year period of 2012 – 2014, the number of deaths increased 160%. However, the actual number of deaths is much lower (52) than the number of deaths with heroin (265). The number of deaths with hydrocodone, methadone, and oxycodone all declined.

In the NFLIS database, hydrocodone is the most common prescription medication identified in reports for items seized and analyzed. For Wayne county, hydrocodone was ranked 4th with 245 items and oxycodone was ranked 6th with 97 items. At the state level, hydrocodone was ranked 4th with 1,415 items but oxycodone dropped to 10th with 393 items.

The 2014 NFLIS also highlights benzodiazepine diversion or abuse which is difficult to monitor in admission, mortality, or survey data. Alprazolam ranked 4th in Wayne County (196 items) and 6th in Michigan (912 items).

SYNTHETIC DRUGS

Calls to Poison Control increased in 2014 from 2013 levels (from 25 to 55). However, the number of calls in 2012 was much higher (280). Unfortunately, the number of calls for synthetic cathinones or synthetics of other classes cannot be determined.

At the state level, 23 different synthetic substances of interest to NDEWS (and 375 items) were identified in reports for items seized and analyzed in NFLIS; 11 (48%) of these were in Wayne County. The synthetic with the most items identified was BZP for both Wayne County and Michigan. Overall, Wayne County accounted for 22.1% of the State's NFLIS total items identified. However, Wayne County accounted for 38.2% of piperazine, 21.8% of synthetic cathinone, 10.5% of phenethylamine, 7.1% of tryptamine and 4.5% of synthetic cannabinoid items identified. The low proportions for some of these synthetic substances could represent different distributions, different likelihood of items being seized by law enforcement, or other items being more attractive for prosecutors to request analysis.

For the state, the most common piperazine identified was BZP (n=128), the most common synthetic cathinone was methylone (n=54), the most common phenthylamine was 2C-I-NBOME (n=27), the most

common tryptamine was DMT (n=22) and the most common synthetic cannabinoid was AB-PINACA (n=11). The synthetic cathinone alpha-PVP, also known as Flakka, was detected in the state in 12 items.

Compared to the Nation, Michigan does not appear to have the diversity or number of synthetic compounds identified in other sites in the NFLIS database. This does not mean that the synthetics are absent or that those that are being distributed are safe. It means that the items seized by law enforcement and requested by the prosecutor to be analyzed were mostly marijuana, cocaine, and heroin.

Data are limited to determine temporal trends for NFLIS. In 2012, there were 135 synthetic cathinone items analyzed compared to 116 in 2014. As in 2012, there were more synthetic cathinone items identified in 2014 than synthetic cannabinoid items identified. It is not possible from the NFLIS report to determine the form of the synthetics (e.g., sold as Ecstasy or bath salts).

NEW AND NOTABLE

There were no substantial new patterns of drug use or new emerging drugs. Heroin continues to be a major problem with the treatment admission system now straining to provide the needed services. The services were provided both in Wayne County and across the state, highlighting more acceptance of medication assisted treatment for heroin. Although the state approved naloxone use, it was too late to obtain federal funding for it this fiscal year. Similarly the passage of Good Samaritan laws theoretically would help reduce deaths from heroin but they have not been publicized. The detection of fentanyl in decedents and in urine samples from one methadone program suggests that the fentanyl-contaminated heroin detected in other states is present in Michigan.

Synthetic drugs are definitely present in Wayne County and the state of Michigan but have not resulted in the publicity that they had in 2012.

One trend that will be monitored is the impact of rescheduling hydrocodone in October 2014. The data through December 2014 are too soon to see if physicians are more conservative in prescribing the pain medication.

Additional Information on Drug Use Trends

DRUG-ASSOCIATED DEATHS

Drug poisoning deaths (not adjusted for age or other demographic variables) increased almost every year in Michigan from 1999 to 2009 (142% increase from 1999 to 2010) and surpassed that of the country every year. In contrast, alcohol poisoning deaths only increased 49% during the same time period and the trend was similar to that of the nation. The increase in drug poisoning deaths occurred in both sexes, age groups with sufficient numbers to test, and in both Whites and Blacks. The subgroups with the greatest increases were Whites who had prescription pain relievers or heroin on the death certificates (from 0.3 per 100,000 for heroin among Whites in 1999 to 2.2 per 100,000 in 2010 and from 0.7 per 100,000 for opioids among Whites in 1999 to 4.9 per 100,000 in 2010).

In 2010-12, age-adjusted drug poisoning death rates were higher in Wayne County than in Michigan, and higher in males compared to females. They are also highest among non-Hispanic Whites although at the state level Native Americans had the highest drug poisoning death rate.

Exhibits

Exhibit 1. Wayne County Overdose Deaths by Drug, 2012 and 2014

	2012	%	2014	%	change from 2012
Total Drug Overdose Deaths	581		513		
Specific drugs detected					
Heroin	245	42.2	265	51.7	*8.2*
Cocaine	249	42.9	173	33.7	*-30.5*
Hydrocodone	92	15.8	87	17.0	*-5.4*
Methadone	72	12.4	29	5.7	*-59.7*
Oxycodone	42	7.2	36	7.0	*-14.3*
Fentanyl	20	3.4	52	10.1	*160.0*

Source: Wayne County Medical Examiner's Office

Exhibit 2. Number of People Certified to Use Medical Marijuana in Michigan, by Year 2012-2014

Fiscal year	# approved
2012	51,741
2013	118,368
2014	96,408

Source: Department of Licensing and Regulation Affairs

Exhibit 3. Poison Control Center Information for the State of Michigan

	2012			2013			2014			
	All exposures	Uninten-tional	%	All exposures	Uninten-tional	%	All exposures	Uninten-tional	%	% change from 2013
Cocaine	169	9	5.3	189	8	4.2	152	3	2.0	-19.6
Heroin	165	1	0.6	330	0	0.0	246	7	2.8	-25.5
Marijuana	264	26	9.8	215	11	5.1	222	24	10.8	3.3
THC homologs	280	4	1.4	25	0	0.0	55	3	5.5	120.0
Meth-amphetamine	59	26	44.1	62	27	43.5	46	15	32.6	-25.8
Hallucinogenic Amphetamines	70	2	2.9	55	3	5.5	59	1	1.7	7.3
Select opioids										
Fentanyl	69	12	17.4	66	11	16.7	45	7	15.6	-31.8
Hydrocodone	19	4	21.1	24	8	33.3	28	13	46.4	16.7
Oxycodone	148	50	33.8	149	38	25.5	145	59	40.7	-2.7
Benzodiazepines	2,978	569	19.1	2,820	538	19.1	2,684	501	18.7	-4.8

Source: Michigan Department of Community Health

Exhibit 4. Prescription Drug Monitoring Program Number and Percentages of Prescriptions and Units, State of Michigan, by Schedule and Year 2007-2014

	2007				2008				2009			
	# scripts	%	# units	%	# scripts	%	# units	%	# scripts	%	#units	%
Schedule II	2,906,747	17.1	179,842,778	16.6	3,029,489	17.4	214,003,030	18.5	3,204,752	17.9	227,784,508	19.0
Schedule III	6,503,453	38.2	419,944,480	38.7	6,598,127	37.9	433,049,073	37.4	6,832,326	38.2	457,786,665	38.1
Schedule IV	6,701,637	39.4	357,203,517	32.9	6,758,505	38.8	363,185,285	31.3	6,897,970	38.6	374,952,579	31.2
Schedule V	896,021	5.3	129,230,111	11.9	1,014,519	5.8	148,896,629	12.8	941,636	5.3	140,632,437	11.7
total	*17,007,858*		*1,086,230,111*		*17,400,640*		*1,159,134,017*		*17,876,684*		*1,201,156,189*	
change from prior year						2.3%		6.7%		2.7%		3.6%

	2010				2011				2012			
	# scripts	%	# units	%	# scripts	%	# units	%	# scripts	%	# units	%
Schedule II	3,581,342	18.9	229,458,625	18.3	3,933,409	19.9	249,358,221	19.0	4,323,434	20.6	273,371,647	19.7
Schedule III	7,342,654	38.7	489,505,190	39.1	8,160,970	41.3	541,380,646	41.2	8,449,497	40.3	566,242,625	40.8
Schedule IV	7,085,734	37.4	384,172,059	30.7	6,635,037	33.6	356,144,523	27.1	7,245,381	34.5	394,318,345	28.4
Schedule V	944,442	5.0	148,254,265	11.8	1,034,264	5.2	168,496,479	12.8	972,708	4.6	154,417,013	11.1
total	*18,954,172*		*1,251,390,139*		*19,763,680*		*1,315,379,869*		*20,991,020*		*1,388,349,630*	
change from prior year	6.0%		4.2%		4.3%		5.1%		6.2%		5.5%	

	2013				2014				5 year change, %		1 year change, %	
	# scripts	%	# units	%	# scripts	%	# units	%	# scripts	# units	# scripts	# units
Schedule II	4,500,619	21.5	282,352,544	20.0	10,944,794	51.9	744,741,300	52.3	241.5	226.9	143.2	163.8
Schedule III	8,280,239	39.6	586,109,834	41.5	1,560,120	7.4	101,457,486	7.1	-77.2	-77.8	-81.2	-82.7
Schedule IV	7,125,334	34.1	389,558,304	27.6	7,594,404	36.0	439,947,800	30.9	10.1	17.3	6.6	12.9
Schedule V	1,019,141	4.9	152,784,022	10.8	969,725	4.6	136,540,707	9.6	3.0	-2.9	-4.8	-10.6
total	*20,925,333*		*1,410,804,704*		*21,069,043*		*1,422,687,293*		17.9	18.4	0.7	0.8
change from prior year	0.3%		1.6%		0.7%		0.8%					

Source: Michigan Department of Licensing and Regulatory Affairs

Data Sources

Data for this report were drawn from the Appendix tables and 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. It therefore underestimates the total number of people receiving treatment as it does 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.

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 2014 as reported in May 2015. 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 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).

Numbers of accidental drug associated deaths for Wayne County were provided by the Office of the Medical Examiner (Wayne County).

Youth Risk Behavior Survey (YRBS) data are from the 2011 and 2013 survey funded by the Centers for Disease Control and Prevention in high school students.

National Survey on Drug Use and Health (NSDUH) data are estimated numbers and percentages from the annual averages based on 2010, 2011, and 2012 NSDUHs

Drug poisoning death data are from the Centers for Disease Control and Prevention (CDC)'s online WONDER database (http://wonder.cdc.gov/) and from the National Vital Statistics System-Mortality (NVSS-M) data accessed from the CDC's Health Indicators Warehouse (www.healthindicators.gov) on 3/19/15.

Calls to Children's Hospital of Michigan Poison Control are for human exposures and cover the entire state of Michigan. Michigan State Police provided the data.

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, Fax: 313–577–8823, E-mail: carfken@med.wayne.edu.

National Drug Early Warning System (NDEWS)
Wayne County (Detroit Area) Sentinel Community Site
Appendix Data Tables, 2015

NDEWS Coordinating Center

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- Table 2b: Self-Reported Substance Abuse Behaviors, By Age Group, 2010-2012, NSDUH

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- Table 5: Drug Poisoning Deaths, by Demographic Characteristics, 2009-2012, NVSS-M, NCHS

- Table 6: HIV/AIDS and Viral Hepatitis Cases, Various Years, CDC

- Table 7a: Drug Reports for Items Seized by Law Enforcement, 2014, NFLIS

- Table 7b: Drug Reports for Selected Categories of New Psychoactive Substances, 2014, NFLIS

Table 1: Demographic and Socio-Economic Characteristics
Wayne County, *Michigan* and *State of Michigan*
2009-2013 ACS Five-Year Estimates

	Wayne County		Michigan	
	Estimate	Margin of Error	Estimate	Margin of Error
Total Population (#)	1,804,507	**	9,886,095	**
Age (%)				
18 years and over	75.1%	**	76.7%	+/-0.1
21 years and over	70.6%	+/-0.1	72.1%	+/-0.1
65 years and over	12.9%	+/-0.1	14.2%	+/-0.1
Median Age	37.6		39.1	
Race (%)				
White, Not Hisp.	49.7%	+/-0.1	76.3%	+/-0.1
Black/African American, Not Hisp.	39.8%	+/-0.1	13.9%	+/-0.1
Hispanic/Latino	5.3%	**	4.5%	+/-0.1
American Indian/Alaska Native	<1%	+/-0.1	<1%	+/-0.1
Asian	2.7%	+/-0.1	2.5%	+/-0.1
Native Hawaiian/Pacific Islander	0.0%	+/-0.1	0.0%	+/-0.1
Some Other Race	<1%	+/-0.1	<1%	+/-0.1
Two or More Races	2.0%	+/-0.1	2.1%	+/-0.1
Sex (%)				
Male	48.1%	+/-0.1	49.1%	+/-0.1
Female	51.9%	+/-0.1	50.9%	+/-0.1
Educational Attainment (*Among Population Aged 25+ Years*) (%)				
High School Graduate or Higher	84.1%	+/-0.2	88.9%	+/-0.1
Bachelor's Degree or Higher	21.3%	+/-0.3	25.9%	+/-0.1
Unemployment (*Among Civilian Labor Force Pop Aged 16+ Years*) (%)				
Percent Unemployed	10.7%	+/- 0.2	7.8%	+/-0.1
Income				
Median Household Income (in 2013 inflation-adjusted dollars)	$41,184	+/- $326	$48,411	+/-$163
Poverty (%)				
People Whose Income in Past Year is Below Poverty Level	24.5%	+/-0.4	16.8%	+/-0.1

NOTES:
Margin of Error: can be interpreted roughly as providing a 90% probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value.
**The estimate is controlled; a statistical test for sampling variability is not appropriate.

SOURCE: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Census Bureau, 2009-2013 5-Year American Community Survey (ACS).

**Table 2a: Self-Reported Substance Use Behaviors Among
Persons 12+ Years in *Detroit Area* ^ and State of Michigan, 2010-2012**
Estimated Percent, 95% Confidance Interval, and Estimated Number
Annual Averages Based on 2010, 2011, 2012 NSDUHs

Self-Reported Substance Use	Estimated Percent and Number Among Persons 12+ Years, by Geographic Region					
	Region: Detroit City^		Region: Southeast^		Michigan	
	Percent Estimate (95% CI)	Estimated Number*	Percent Estimate (95% CI)	Estimated Number*	Percent Estimate (95% CI)	Estimated Number*
Used in Past Month						
Alcohol	38.13 (34.06 - 42.38)	217,428	51.81 (48.38 - 55.23)	539,790	53.80 (52.44 - 55.16)	4,461,849
Binge Alcohol**	21.04 (18.13 - 24.29)	119,976	24.64 (22.07 - 27.42)	256,716	25.23 (24.05 - 26.45)	2,092,425
Marijuana	13.59 (11.17 - 16.45)	77,494	8.66 (7.22 - 10.36)	90,226	8.74 (8.07 - 9.47)	724,843
Use of Illicit Drug Other Than Marijuana	3.68 (2.71 - 4.97)	20,984	3.81 (3.01 - 4.81)	39,695	3.58 (3.18 - 4.03)	296,904
Used in Past Year						
Cocaine	1.63 (1.04 - 2.53)	9,295	1.47 (1.06 - 2.02)	15,315	1.33 (1.10 - 1.62)	110,302
Nonmedical Use of Pain Relievers	4.59 (3.62 - 5.81)	26,173	5.15 (4.22 - 6.28)	53,656	5.14 (4.67 - 5.65)	426,281
Dependence or Abuse in Past Year*						
Illicit Drugs or Alcohol	**10.04 (8.16 - 12.28)**	**57,251**	**8.44 (7.08 - 10.04)**	**87,933**	**8.74 (8.07 - 9.46)**	**724,843**
Alcohol	7.11 (5.60 - 9.00)	40,543	6.70 (5.44 - 8.22)	69,805	7.05 (6.43 - 7.73)	584,685
Illicit Drugs	4.53 (3.46 - 5.92)	25,831	3.11 (2.51 - 3.83)	32,402	2.77 (2.46 - 3.11)	229,727

NOTES:

95% Confidence Interval (CI): provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time.

^Detroit Area: includes NSDUH Substate Regions called Detroit City and Southeast. **Detroit City Region** comprises part of Wayne County and Southeast Region comprises Monroe and Wayne County (excluding Detroit City).

*__Estimated #__: the estimated number of persons aged 12 or older who used a drug or are dependent/abuse a substance was calculated by multiplying the prevalence rate and the population estimate from Table C1 of the NSDUH report. The population estimate is the simple average of the 2010, 2011, and 2012 population counts for persons aged 12 or older

**Binge Alcohol: defined as drinking 5 or more drinks on the same occasion on at least 1 day in the past 30 days.

***Dependence or Abuse in Past Year: based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*.

SOURCE: Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Disorders from the 2010-2012 National Surveys on Drug Use and Health: Results and Detailed Tables.Rockville, MD. 2014. Available at: http://www.samhsa.gov/data/NSDUH/substate2k12/toc.aspx.

Table 2b: Self-Reported Substance Use Behaviors Among Persons in *Detroit Area^* and State of Michigan, by Age Group and Region, 2010-2012
Estimated Percent and 95% Confidence Interval (CI), Annual Averages Based on 2010, 2011, 2012 NSDUHs

Geographic Region	Estimated Percent, by Age Group								
	12-17	18-25	26+	12-17	18-25	26+	12-17	18-25	26+
	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)	Est. % (95% CI)
	Past Month Binge Alcohol* Use			Past Month Marijuana Use			Past Month Use of Illicit Drug Other than Marijuana		
Detroit City^	4.5 (3.4-6.0)	29.4 (25.4-33.7)	21.9 (18.2-26.0)	9.1 (6.8-12.0)	27.2 (23.0-31.9)	11.3 (8.6-14.9)	4.5 (3.2-6.2)	5.1 (3.7-7.0)	3.3 (2.1-4.9)
Southeast^	7.5 (6.0-9.4)	38.7 (34.8-42.7)	24.7 (21.6-28.2)	8.2 (6.4-10.4)	21.9 (18.6-25.7)	6.7 (5.2-8.6)	5.3 (3.9-7.2)	7.9 (6.1-10.1)	3.0 (2.1-4.2)
Michigan	7.5 (6.8-8.4)	43.1 (41.5-44.8)	24.4 (23.0-26.0)	8.5 (7.7-9.5)	21.1 (19.8-22.5)	6.7 (5.9-7.6)	4.5 (3.9-5.3)	7.3 (6.5-8.1)	2.8 (2.4-3.4)
	Past Year Marijuana Use			Past Year Cocaine Use			Past Year Use: Nonmedical Use of Pain Relievers		
Detroit City^	15.4 (12.3-19.0)	38.5 (33.8-43.5)	15.4 (12.2-19.3)	0.3 (0.2-0.6)	1.3 (0.7-2.1)	1.9 (1.2-3.1)	5.7 (4.1-7.7)	8.0 (6.1-10.4)	3.7 (2.6-5.2)
Southeast^	14.2 (11.9-16.9)	32.9 (29.1-36.9)	10.3 (8.3-12.7)	0.8 (0.5-1.4)	3.5 (2.5-5.0)	1.2 (0.8-1.9)	6.9 (5.3-8.8)	12.0 (9.8-14.7)	3.9 (8.9-5.2)
Michigan	14.8 (13.7-15.9)	33.4 (31.8-35.0)	10.1 (9.1-11.1)	0.8 (0.6-1.0)	3.6 (3.0-4.2)	1.0 (0.8-1.4)	6.5 (5.8-7.3)	11.1 (10.1-12.2)	3.9 (3.4-4.6)
	Illicit Drugs or Alcohol Dependence or Abuse in Past Year			Alcohol Dependence or Abuse in Past Year			Illicit Drug Dependence or Abuse in Past Year		
Detroit City^	7.0 (5.2-9.5)	16.4 (13.4-20.0)	9.1 (7.0-11.9)	2.6 (1.8-3.8)	11.0 (8.7-13.7)	7.0 (5.2-9.4)	4.5 (3.1-6.4)	8.1 (6.1-10.8)	3.8 (2.5-5.6)
Southeast^	7.2 (5.6-9.3)	16.9 (14.3-19.8)	7.3 (5.8-9.2)	3.8 (2.8-5.2)	12.8 (10.6-15.5)	6.1 (4.7-8.0)	4.9 (3.6-6.7)	8.1 (6.3-10.4)	2.1 (1.5-3.0)
Michigan	7.0 (6.3-7.9)	17.6 (16.4-18.8)	7.5 (6.6-8.4)	3.9 (3.3-4.5)	14.0 (12.9-15.1)	6.3 (5.5-7.1)	4.7 (4.1-5.4)	6.8 (6.0-7.7)	1.8 (1.5-2.2)

95% Confidence Interval (CI): provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time.
^Detroit Area: includes NSDUH Substate Regions called Detroit City and Southeast. **Detroit City Region** comprises part of Wayne County and **Southeast Region** comprises Monroe and Wayne County (excluding Detroit City).
*Binge Alcohol Use: defined as drinking 5 or more drinks on the same occasion on at least 1 day in the past 30 days.
**Dependence or Abuse: based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

SOURCE: Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Disorders from the 2010-2012 National Surveys on Drug Use and Health: Results and Detailed Tables. Rockville, MD. 2014. Available at:
http://www.samhsa.gov/data/NSDUH/substate2k12/toc.aspx.

Table 3: Self-Reported Substance Use-Related Behaviors Among *Michigan* ^ Public High School Students, 2013
Estimated Percent and 95% Confidence Interval (CI)
2011 and 2013 YRBS*

Substance Use Behaviors	2013 vs 2011			2013 by Sex			2013 by Race			
	2013	2011	p-value	Male	Female	p-value	White	Black	Hispanic	Asian
	Percent			Percent			Percent			
	Estimate (95% CI)	Estimate (95% CI)		Estimate (95% CI)	Estimate (95% CI)		Estimate (95% CI)	Estimate (95% CI)	Estimate (95% CI)	Estimate (95% CI)
Used in Past Month										
Alcohol	28.3 (24.7 - 32.2)	30.5 (27.3 - 34.0)	0.37	35.9 (30.8 - 41.4)	36.2 (33.1 - 39.6)	0.90	29.7 (26.8 - 32.7)	20.6 (16.1 -25.9)	31.2 (24.1 - 39.4)	12.8 (6.4 - 23.8)
Binge Alcohol**	16.7 (14.2 - 19.7)	17.8 (15.0 - 21.1)	0.59	22.2 (17.5 - 27.7)	19.9 (16.9 - 23.2)	0.25	17.8 (15.6 - 20.3)	10.4 (7.3 - 14.7)	20.1 (12.9 - 29.8)	7.1 (2.8 - 16.6)
Marijuana	18.2 (16.8 - 19.8)	18.6 (16.3 - 21.1)	0.79	22.0 (19.0 - 25.3)	18.9 (16.2 - 21.9)	**0.03**	17.6 (16.2 - 19.1)	18.5 (14.4 -23.5)	26.1 (19.7 - 33.7)	6.4 (2.5 - 15.2)
Ever Used in Lifetime										
Alcohol	60.2 (56.3 - 64.0)	63.8 (60.8 - 66.8)	0.13	64.8 (58.9 - 70.2)	69.7 (66.0 - 73.2)	0.11	61.7 (58.5 - 64.9)	54.1 (47.8 - 60.4)	65.1 (58.3 - 71.4)	30.0 (17.2 - 47.0)
Marijuana	33.0 (30.5 - 35.5)	34.5 (30.9 - 38.3)	0.47	40.0 (35.5 - 44.6)	35.1 (30.7 - 39.8)	**0.02**	31.4 (28.9 - 34.1)	37.6 (28.4 - 47.8)	41.1 (33.9 - 48.7)	13.4 (7.7 - 22.3)
Cocaine	4.0 (2.8 - 5.7)	4.2 (3.6 - 4.9)	0.79	11.2 (8.8 - 14.2)	5.3 (4.2 - 6.7)	**0.00**	3.5 (2.5 - 4.9)	2.8 (1.3 - 5.7)	11.4 (6.6 - 18.9)	4.1 (1.5 - 10.9)
Hallucinogenic Drugs	—	—	~	—	—	~	—	—	—	—
Inhalants	7.4 (6.3 - 8.7)	9.8 (8.5 - 11.3)	**0.01**	9.5 (7.4 - 12.0)	9.5 (7.7 - 11.6)	1.00	6.5 (5.2 - 8.1)	7.5 (6.1 - 9.2)	12.3 (7.3 - 19.8)	8.0 (4.8 - 12.9)
Ecstasy also called "MDMA"	—	—	~	10.1 (8.3 - 12.2)	7.5 (5.7 - 9.7)	**0.02**	—	—	—	—
Heroin	2.8 (2.0 - 4.0)	2.5 (1.8 - 3.5)	0.62	5.5 (3.5 - 8.6)	1.9 (1.0 - 3.4)	**0.00**	2.1 (1.4 - 3.2)	2.8 (1.4 - 5.7)	8.9 (5.3 - 14.6)	5.1 (1.9 - 13.0)
Methamphetamine	2.7 (1.9 - 3.8)	2.9 (2.3 - 3.7)	0.66	6.4 (4.5 - 9.0)	3.2 (2.1 - 5.0)	**0.01**	2.2 (1.5 - 3.2)	2.3 (1.1 - 4.7)	8.2 (4.9 - 13.5)	4.2 (1.6 - 10.9)
Rx Drugs without a Doctors Prescription	16.2 (14.0 - 18.6)	—	~	20.8 (17.9 - 24.1)	17.0 (14.1 - 20.4)	**0.03**	16.7 (15.2 - 18.3)	11.7 (8.3 - 16.3)	20.6 (14.4 - 28.6)	8.3 (4.3 - 15.5)
Injected Any Illegal Drug	2.1 (1.5 - 3.0)	2.6 (2.0 - 3.4)	0.32	3.9 (2.5 - 6.0)	1.8 (1.0 - 3.5)	**0.03**	1.5 (1.0 - 2.4)	2.6 (1.1 - 6.1)	5.6 (3.4 - 9.2)	2.9 (0.8 - 9.4)

NOTES:

'—' = Data not available; ~ = P-value not available; **N/A =** < 100 respondents for the subgroup.

^Michigan: weighted data were available for Michigan in 2011 and 2013; weighted results mean that the overall response rate was at least 60%. The overall response rate is calculated by multiplying the school response rate times the student response rate. Weighted results are representative of all students in grades 9–12 attending public schools in each jurisdiction.

*Sample Frame for the 2011 and 2013 YRBS: sampling frame consisted of public schools with students in at least one of grades 9-12. The sample size for 2011 was 4,194 with an overall response rate of 78% the 2013 sample size was 4,266 with a 77% overall response rate.

**Binge Alcohol: defined as had five or more drinks of alcohol in a row within a couple of hours on at least 1 day during the 30 days before the survey.

Source: Adapted by the NDEWS Coordinating Center from data provided by the Centers for Disease Control and Prevention (CDC), 1991-2013 High School Youth Risk Behavior Survey Data. Available at http://nccd.cdc.gov/youthonline/. Accessed on [5/18/2015].

**Table 4a1: Trends in Admissions* to Substance Abuse Treatment Programs,
Wayne County (Detroit Area) Residents, 2010-2014**
Number of Admissions and Percent of Admissions with Selected Substances
Cited as Primary Substance of Abuse at Admission, by Year and Substance

	Calendar Year									
	2010		2011		2012		2013		2014	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	**15,652**	n/a	**14,960**	n/a	**13,905**	n/a	**13,189**	n/a	**11,976**	n/a
Primary Substance of Abuse (%)										
Alcohol	5215	33.3%	5,035	33.7%	4,436	31.9%	4,223	32.0%	3,904	32.6%
Cocaine/Crack	2115	13.5%	2,157	14.4%	1,778	12.8%	1,565	11.9%	1,220	10.2%
Heroin	5007	32.0%	4,814	32.2%	4,965	35.7%	4,858	36.8%	4,867	40.6%
Prescription Opioids	1056	6.7%	972	6.5%	880	6.3%	809	6.1%	746	6.2%
Methamphetamine	5	<1%	6	<1%	11	<1%	17	<1%	24	<1%
Marijuana	2016	12.9%	1,746	11.7%	1,622	11.7%	1,477	11.2%	1,049	8.8%
Benzodiazepines	121	<1%	147	1.0%	140	1.0%	116	<1%	96	<1%
MDMA	14	<1%	14	<1%	6	<1%	2	<1%	8	<1%
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other Drugs/Unknown	103	<1%	69	<1%	67	<1%	122	<1%	62	<1%

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, since some individuals are admitted to treatment more than once in a given period.

SOURCE: Data provided by the Wayne County (Detroit Area) NDEWS SCE and 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.

Table 4a2: Trends in Admissions* to Substance Abuse Treatment Programs, *Michigan* Residents, 2010-2014

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

	Calendar Year									
	2010		2011		2012		2013		2014	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	**67,503**	n/a	**65,106**	n/a	**62,825**	n/a	**64,684**	n/a	**61,932**	n/a
Primary Substance of Abuse (%)										
Alcohol	26,746	39.6%	24,851	38.2%	23,675	37.7%	24,007	37.1%	22,762	36.8%
Cocaine/Crack	5,761	8.5%	5,494	8.4%	4,775	7.6%	4,744	7.3%	3,986	6.4%
Heroin	11,865	17.6%	12,564	19.3%	13,190	21.0%	14,372	22.2%	15,413	24.9%
Prescription Opioids	9,194	13.6%	9,710	14.9%	8,928	14.2%	8,946	13.8%	8,188	13.2%
Methamphetamine	796	1.2%	779	1.2%	847	1.3%	918	1.4%	1,334	2.2%
Marijuana	11,841	17.5%	10,345	15.9%	9,880	15.7%	10,312	15.9%	8,924	14.4%
Benzodiazepines	484	<1%	520	<1%	612	1.0%	546	<1%	506	<1%
MDMA	28	<1%	23	<1%	13	<1%	15	<1%	13	<1%
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other Drugs/Unknown	788	1.2%	820	1.3%	908	1.4%	824	1.3%	806	1.3%

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, since some individuals are admitted to treatment more than once in a given period.

SOURCE: Data provided by the Wayne County (Detroit Area) NDEWS SCE and 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.

Table 4b1: Demographic and Drug Use Characteristics of Primary Treament Admissions*
for Select Substances of Abuse, Wayne County (Detroit Area) Residents, 2014
Number of Admissions, by Primary Substance of Abuse and
Percent of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance of Abuse								
	Alcohol	Cocaine/ Crack	Heroin	Prescription Opioids	Meth- amphetamine	Marijuana	Benzo- diazepines	Synthetic Stimulants	Synthetic Cannabinoids
Number of Admissions (#)	3,904	1,220	4,867	746	24	1,049	96	unavail	unavail
Sex (%)									
Male	68.5%	60.2%	60.4%	48.1%	75.0%	69.6%	42.7%	unavail	unavail
Female	31.5%	39.8%	39.6%	51.9%	25.0%	30.4%	57.3%	unavail	unavail
Race/Ethnicity (%)									
White, Non-Hisp.	33.5%	19.3%	45.9%	70.8%	87.5%	15.8%	80.2%	unavail	unavail
African-Am/Black, Non-Hisp	63.0%	76.7%	50.2%	21.4%	8.3%	78.7%	9.4%	unavail	unavail
Hispanic/Latino	1.9%	1.6%	2.0%	1.7%	0.0%	1.4%	3.1%	unavail	unavail
Asian	<1%	<1%	<1%	<1%	0.0%	<1%	0.0%	unavail	unavail
Other	1.3%	1.9%	2.0%	5.5%	4.2%	3.5%	1.0%	unavail	unavail
Age Group (%)									
Under 18	<1%	<1%	<1%	<1%	0.0%	17.6%	1.0%	unavail	unavail
18-25	7.1%	4.5%	10.5%	16.0%	16.7%	35.0%	26.0%	unavail	unavail
26-44	42.8%	35.2%	40.1%	63.7%	83.3%	38.6%	65.6%	unavail	unavail
45+	49.5%	60.2%	49.3%	20.1%	0.0%	8.8%	7.3%	unavail	unavail
Route of Administration (%)									
Smoked	0.0%	90.7%	<1%	<1%	29.2%	97.8%	0.0%	unavail	unavail
Inhaled	0.0%	8.7%	46.0%	2.9%	4.2%	<1%	0.0%	unavail	unavail
Injected	0.0%	0.0%	53.6%	1.7%	16.7%	0.0%	0.0%	unavail	unavail
Oral/Other/Unknown	100.0%	<1%	<1%	94.8%	50.0%	2.1%	100.0%	unavail	unavail
Secondary Substance (%)									
None	48.1%	42.8%	40.0%	37.9%	25.0%	60.2%	12.5%	unavail	unavail
Alcohol	0.0%	27.6%	9.5%	11.3%	20.8%	28.2%	15.6%	unavail	unavail
Cocaine/Crack	22.0%	1.1%	23.3%	6.8%	8.3%	4.6%	3.1%	unavail	unavail
Heroin	3.1%	5.0%	0.0%	8.3%	4.2%	<1%	7.3%	unavail	unavail
Prescription Opioids	3.0%	1.4%	6.2%	<1%	20.8%	2.7%	30.2%	unavail	unavail
Methamphetamine	<1%	<1%	<1%	<1%	0.0%	0.0%	2.1%	unavail	unavail
Marijuana	19.6%	18.9%	7.9%	12.3%	8.3%	0.0%	20.8%	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, since some individuals are admitted to treatment more than once in a given period.

unavail: data not available; **n/a:** not applicable; **percentages** may not sum to 100 due to either rounding and/or because not all possible categories are presented in the table.

SOURCE: Data provided by the Wayne County (Detroit Area) NDEWS SCE and 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.

Table 4b2: Demographic and Drug Use Characteristics of Primary Treament Admissions*
for Select Substances of Abuse, Michigan Residents, 2014
Number of Admissions, by Primary Substance of Abuse and
Percent of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance of Abuse								
	Alcohol	Cocaine/ Crack	Heroin	Prescription Opioids	Meth- amphetamine	Marijuana	Benzo- diazepines	Synthetic Stimulants	Synthetic Cannabinoids
Number of Admissions (#)	22,762	3,986	15,413	8,188	1,334	8,924	506	unavail	unavail
Sex (%)									
Male	65.9%	53.8%	56.9%	46.2%	47.3%	67.8%	38.3%	unavail	unavail
Female	34.1%	46.2%	43.2%	53.8%	52.7%	32.2%	61.7%	unavail	unavail
Race/Ethnicity (%)									
White, Non-Hisp.	67.2%	42.1%	72.9%	83.6%	81.4%	55.0%	88.3%	unavail	unavail
African-Am/Black, Non-Hisp	22.9%	51.3%	19.8%	6.0%	1.5%	31.9%	4.9%	unavail	unavail
Hispanic/Latino	3.2%	2.0%	2.1%	2.0%	<1%	4.3%	1.4%	unavail	unavail
Asian	<1%	<1%	<1%	<1%	<1%	<1%	<1%	unavail	unavail
Other	2.7%	2.8%	1.4%	3.5%	2.6%	4.6%	4.3%	unavail	unavail
Age Group (%)									
Under 18	1.0%	<1%	<1%	<1%	<1%	17.4%	2.6%	unavail	unavail
18-25	11.7%	5.7%	18.8%	18.8%	18.1%	35.0%	26.3%	unavail	unavail
26-44	50.3%	49.4%	57.2%	66.8%	67.1%	39.9%	53.4%	unavail	unavail
45+	37.0%	44.5%	23.7%	13.9%	13.9%	7.7%	17.8%	unavail	unavail
Route of Administration (%)									
Smoked	<1%	79.6%	<1%	<1%	57.6%	96.3%	0.0%	unavail	unavail
Inhaled	<1%	17.3%	23.8%	6.3%	13.2%	<1%	1.2%	unavail	unavail
Injected	<1%	1.1%	74.7%	17.6%	18.4%	0.0%	<1%	unavail	unavail
Oral/Other/Unknown	99.7%	2.1%	<1%	75.4%	10.8%	3.4%	98.4%	unavail	unavail
Secondary Substance (%)									
None	56.4%	34.3%	32.3%	35.3%	27.9%	48.6%	14.4%	unavail	unavail
Alcohol	0.0%	30.7%	8.3%	12.5%	20.2%	35.9%	15.4%	unavail	unavail
Cocaine/Crack	10.0%	2.5%	19.0%	5.7%	5.8%	5.0%	5.1%	unavail	unavail
Heroin	1.7%	4.8%	0.0%	7.9%	4.4%	<1%	8.3%	unavail	unavail
Prescription Opioids	4.4%	3.9%	15.9%	3.7%	9.1%	3.7%	33.0%	unavail	unavail
Methamphetamine	<1%	<1%	1.1%	2.2%	0.0%	2.6%	1.6%	unavail	unavail
Marijuana	23.9%	21.3%	11.9%	16.9%	29.2%	0.0%	16.6%	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, since some individuals are admitted to treatment more than once in a given period.
unavail: data not available; **n/a:** not applicable; **percentages** may not sum to 100 due to either rounding and/or because not all possible categories are presented in the table.

SOURCE: Data provided by the Wayne County (Detroit Area) NDEWS SCE and 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.

Table 5: Drug Poisoning Deaths*, by Demographic Characteristics,
Wayne County* and *State of Michigan, 2009-2012
Rate per 100,000 of deaths with underlying causes of drug related poisonings and 95% Confidence Interval (CI)
2009-2011 and 2010-2012

	Wayne County		Michigan	
	2009-2011 Rate (95% CI)	2010-2012 Rate (95% CI)	2009-2011 Rate (95% CI)	2010-2012 Rate (95% CI)
Total (Age-Adjusted**)	15.5 (14.5-16.6)	15.8 (14.7-16.8)	14.2 (13.8-14.7)	13.9 (13.5-14.3)
Sex (Age-Adjusted**)				
Male	18.5 (16.8-20.1)	18.1 (16.4-19.8)	17.2 (16.5-17.9)	16.3 (15.6-16.9)
Female	12.8 (11.4-14.1)	13.6 (12.2-15.0)	11.3 (10.8-11.9)	11.6 (11.0-12.1)
Race/Ethnicity (Age-Adjusted**)				
White, Non-Hisp.	19.5 (17.8-21.2)	20.7 (18.9-22.5)	15.1 (14.6-15.6)	14.9 (14.4-15.4)
African-Am/Black, Non-Hisp.	12.3 (10.8-13.7)	10.6 (9.3-12.0)	12.8 (11.7-13.9)	11.3 (10.3-12.3)
Hispanic	15.1 (10.6-20.9)	20.1 (14.9-26.4)	13.7 (11.4-16.0)	14.5 (12.2-16.7)
Asian	DSU	DSU	DSU	DSU
American Indian/Alaska Native	DSU	DSU	23.0 (17.5-29.9)	25.2 (19.4-32.3)
Age Group				
<18	DSU	DSU	0.5 (0.4-0.7)	0.4 (0.3-0.6)
18-44	20.3 (18.3-22.4)	22.6 (20.5-24.7)	20.8 (19.9-21.7)	20.8 (19.9-21.6)
45-64	30.1 (27.3-33.0)	26.4 (23.8-29.1)	22.5 (21.5-23.5)	21.2 (20.2-22.2)
65+	2.9 (1.8-4.5)	3.4 (2.2-5.1)	4.3 (3.6-4.9)	4.0 (3.4-4.6)

NOTES:
*Deaths due to drug poisoning, ICD-10 codes X40-44, X60-64, X85, Y10-14. Please see the *Overview & Limitations* section (pgs. 8-9) for the ICD-10 definitions.
**Age Adjusted Rate: the rate is adjusted based on the age distribution of a standard population allowing for comparison of rates across different sites.
Unless noted otherwise, any age-adjusted data are adjusted using the year 2000 standard population.
unavail: data not available for geographic area; **DSU:** data statistically unreliable.

SOURCE: Adapted by the NDEWS Coordinating Center from National Vital Statistics System-Mortality (NVSS-M) data provided by the Centers for Disease Control and Prevention, National Center for Health Statistics. Accessed from Health Indicators Warehouse. www.healthindicators.gov. [3/19/15].

Table 6: HIV/AIDS and Viral Hepatitis Cases,
Wayne County **and** *State of Michigan*
Number of Cases and Rate per 100,000 Population, Various Years

Type of Disease	Wayne County		Michigan	
	#	Rate per 100,000	#	Rate per 100,000
HIV				
Diagnosis of HIV Infection, 2012[a]	392	26.4	843	10.2
Persons Living with Diagnosed HIV Infection (Prevalence), Year-End 2011[a]	6,717	451.5	14,086	170.4
Hepatitis B, 2012[b]				
Acute Cases (reported new cases)	unavail	unavail	81	0.8
Chronic Cases (estimated #)	unavail	unavail	unavail	unavail
Hepatitis C, 2012[b]				
Acute Cases (reported new cases)	unavail	unavail	76	0.8
Chronic Cases (estimated #)	unavail	unavail	unavail	unavail

NOTES:

unavail: data not available.

Sources: Adapted by the NDEWS Coordinating Center from data provided by:

[a]Centers for Disease Control and Prevention (CDC). NCHHSTP Atlas. Accessed on [3/20/15]. Available at: http://www.cdc.gov/nchhstp/atlas/.

[b]Centers for Disease Control and Prevention (CDC), National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Division of Viral Hepatitis, *Surveillance for Viral Hepatitis — United States, 2012.*

Table 7a: Drug Reports for Items Seized by Law Enforcement in *Wayne County, Michigan* in 2014
National Forensic Laboratory Information System (NFLIS)
Top 10 Drug Reports* and Select Drugs/Drug Categories of Interest,
Number of Drug-Specific Reports and Percent of Total Analyzed Drug Reports

Drug Identified	Number (#)	Percent of Total Drug Reports (%)
TOTAL Drug Reports*	**7,762**	**100%**
Top 10 Drug Reports		
Cannabis	3,916	50.5%
Cocaine	1,400	18.0%
Heroin	1,095	14.1%
No Controlled Drug Identified	288	3.7%
Hydrocodone	245	3.2%
Alprazolam	196	2.5%
Oxycodone	97	1.2%
Amphetamine	61	0.8%
N-benzylpiperazine (BZP)	50	0.6%
3,4-methylenedioxymethamphetamine (MDMA)	46	0.6%
Top 10 Total	**7,394**	**95.3%**
Selected Drugs/Drug Categories*		
Fentanyl & Fentanyl Analogs	7	0.1%
Synthetic Cannabinoids	1	<0.1%
Synthetic Cathinones	27	0.3%
2C Phenethylamines	6	0.1%
Piperazines	55	0.7%
Tryptamines	2	<0.1%

NOTES:

***Drug Report:** drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database.

****Selected Drugs/Drug Categories:** Fentanyl & Fentanyl Analogs and Synthetic Cannabinoids, Synthetic Cathinones, 2C Phenethylamines, Piperazines, and Tryptamines are drug categories of current interest to the NDEWS Project because of the recent increase in their numbers, types, and availability. Please see the Overview & Limitations section (pgs. 12-17) for a complete list of drugs included in each category that were reported to NFLIS during the January to December 2014 timeframe.

The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

Source: Adapted by CESAR from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 5, 2015.

Table 7b: Drug Reports* for Selected Categories of New Psychoactive Substances (NPS) among Items Seized by Law Enforcement in Wayne County, Michigan *in 2014,* National Forensic Laboratory Information System (NFLIS), Number of NPS Drug-Specific Reports and Percent of NPS Category

NPS Category Drug Identified	Number (#)	Percent of NPS Category (%)
Top 5 *Synthetic Cannabinoid* Drug Reports**		
AB-PINACA	1	100.0%
Total *Synthetic Cannabinoid* Reports	**1**	**100.0%**
Top 5 *Synthetic Cathinone* Drug Reports**		
N-METHYL-3,4-METHYLENEDIOXYCATHINONE (METHYLONE)	10	37.0%
3,4-METHYLENEDIOXYETHYLCATHINONE (ETHYLONE)	8	29.6%
4-METHYL-N-ETHYLCATHINONE (4-MEC)	6	22.2%
METHYLENEDIOXYPYROVALERONE (MDPV)	2	7.4%
PENTEDRONE (2-(METHYLAMINO)-1-PHENYLPENTAN-1-ONE)	1	3.7%
Total *Synthetic Cathinone* Reports	**27**	**100.0%**
Top 5 *2C Phenethylamine* Drug Reports**		
2-(4-IODO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (2C-I-NBOME)	5	83.3%
2-(4-CHLORO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (2C-C-NBOME)	1	16.7%
Total *2C Phenethylamine* Reports	**6**	**100.0%**
Top 5 *Piperazine* Drug Reports**		
N-BENZYLPIPERAZINE (BZP)	50	90.9%
1-(3-TRIFLUOROMETHYL)PHENYL-PIPERAZINE (TFMPP)	5	9.1%
Total *Piperazine* Reports	**55**	**100.0%**
Top 5 *Tryptamine* Drug Reports**		
DIMETHYLTRYPTAMINE (DMT)	2	100.0%
Total *Tryptamine* Reports	**2**	**100.0%**

NOTES:

*Drug Report: drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database.

**Top 5 NPS Category Drug Reports: fewer than 5 drug types for a specific NPS category may have been seized in the catchment area during the reporting period. Please see the Overview & Limitations section (pgs. 12-17) for a complete list of drugs included in each NPS category that were reported to NFLIS during the January to December 2014 timeframe.

NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

Source: Adapted by CESAR from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 5, 2015.