

Stimulants: An Emerging Problem

An in-depth analysis of stimulant related issues in the LRE region to inform local and regional efforts to address the growing problems related to methamphetamine and cocaine.

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EXECUTIVE SUMMARY

The Allegan Substance Abuse Prevention Task Force and Lakeshore Regional Entity (LRE) commissioned this report in response to local law enforcement leaders, local substance use disorder (SUD) providers, and other stakeholders raising concerns regarding methamphetamine (MA) use in the region. This report is intended to inform data-driven planning to mitigate the growing threat of methamphetamine and other illicit stimulants in the region.

EVIDENCE OF A GROWING PROBLEM

In the early 2000's MA was a significant problem in the region, primarily in Allegan County which was at the forefront of addressing this problem through targeted prevention, treatment and enforcement efforts. Following state-wide legislation restricting the purchase of pseudoephedrine in 2004, use of MA issues decreased.

In the LRE region, MA has re-emerged as a problem in recent years as evidenced by:

- 275% ↑ in MA-involved SUD treatment admissions, with a 476% increase in admissions with MA as primary drug between FY16 and FY19
- 372% ↑ in SUD Treatment admission involving both MA and an opioid
- ↑ in overdose deaths involving psychostimulants with abuse potential (mostly MAⁱ)
- 148% ↑ in MA related arrests between FY17 and FY19
- 2600% ↑ in MA seized in LRE region between 2015 - 2019, mostly from Mexico

Cocaine is a growing problem, but to a lesser extent, as evidenced by:

- 437% ↑ in cocaine-involved treatment admissions between FY16 and FY19, admissions with cocaine as primary drug have remained relatively stable.
- 585% ↑ in cocaine seized by HIDTA drug teams between 2015 and 2019

Young Adults: The largest increase in MA involved treatment admissions occurred among persons between the age of 18 and 25 accounting for 28.7% of admissions for this age range.

Among individuals reporting MA as their primary drug, the majority report they started using between the ages of 18 and 25; with a median age of 22 and average age of 23.5.

Youth: Teen use of MA and cocaine continue to remain very low throughout the region (<1%).

Among a small group of teens surveyed for this report, most reported these substances are high risk. Treatment admissions for minors involving MA were extremely low accounting for only 1.2% of admissions for individuals under age 18.

Areas of concern noted are the low rate of teens reporting an adult has talked to them about the risks, that they have seen or heard messaging about the risks, and that it would be easy to get these substances.

TREATING STIMULANT USE DISORDERS:

Unique Challenges: SUD clinicians report that clients entering treatment for MA present with numerous challenges, including polysubstance use, trauma, financial struggles, housing and employment instability, criminal justice system involvement, and children placed in foster care. In addition, complications such as co-morbid psychosis symptoms, sleep disturbance, increased paranoia, impulsivity, and physical health impacts that affect self-esteem such as skin and dental issues.

Clinicians report that the biggest challenge in providing treatment for clients with methamphetamine addiction is stabilizing and engaging a client in treatment initially.

Treatment Outcomes: Almost one-third of clinicians reported that treatment outcomes for individuals with MA addiction were worse than for other drugs. A review of discharge records found that MA-involved treatment episodes had poorer treatment outcomes than admissions without MA involved, as measured by:

- less likely to ‘completed treatment’, (29% vs 38%),
- more likely to ‘drop out’ (49% vs 46%), and
- more likely to be ‘terminated by the program’ (6% vs 4%).

Treatment Episodes that involved both MA and an opioid were even less likely to complete treatment and more likely to be ‘terminated by the program’ than MA involved admissions without an opioid.

Best-Practice: Research indicates that the most effective treatments for MA dependence are a combination of behavioral therapies, such as cognitive-behavioral therapy with motivational incentives. Specific models recommended most often include:

- Matrix Model of Cognitive Behavioral Therapy which incorporates principles of Cognitive Behavioral Therapy during a 16-week, manualized therapy. This program has proven more effective than “treatment as usual” for MA-dependence.
- Contingency Management (CM) therapy to enhance traditional treatment. CM uses incentives to provide immediate and reliable reinforcement of abstinence.

Additional Considerations in Treating MA-Dependence:

- Allow for an initial rest period during withdrawal.
- Consider use of medication to manage severe withdrawal symptoms.
- Urinalysis screens may provide needed structure to support sustained abstinence.
- Exercise may improve treatment outcomes by reducing depression and anxiety.
- Risky sexual behavior is common; Incorporate harm reduction and address client fears and concerns.
- Continuing care for 6-12 months and access to relapse prevention for longer.

Support Needed by SUD Treatment Providers:

To improve treatment outcomes clinicians identified the need for additional, flexible funding to support:

- More intensive treatment services designed to specifically meet the needs of individuals with a stimulant use disorder.
- Funds to implement contingency management which requires funds to provide incentives for clients.

Additional needs identified include:

- Additional training and educational materials specific to MA.
- Enhanced care coordination and ability to connect clients with community resources.
- More recovery coaches, who are well-informed about community resources, to support the individual for at least 6 months and increase frequency of client contact.

OPPORTUNITIES FOR ACTION:

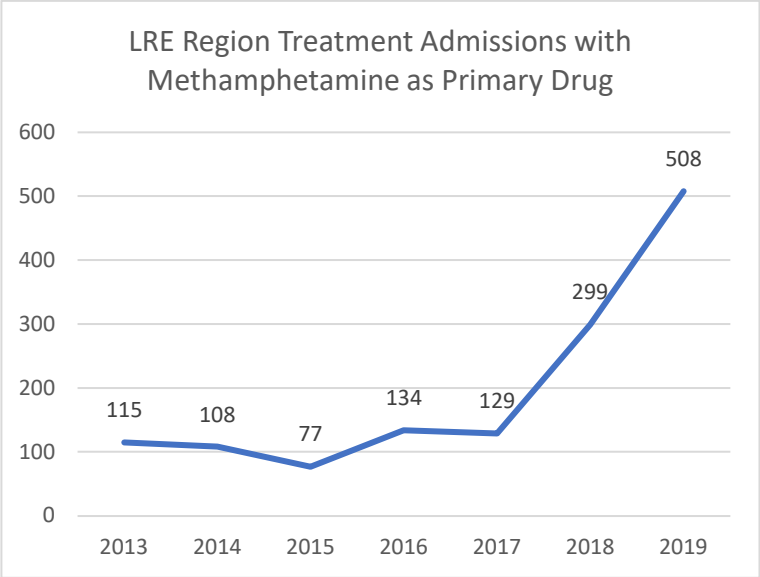
- Raise public awareness regarding the growing problem and reduce stigma.
- Develop tools and resources to support prevention efforts.
- Enhance efforts to educate young adults on the risks.
- Explore and address barriers to treatment access for methamphetamine-dependence.
- Partner with medication assisted treatment providers to expand and adopt treatment protocols and or new medicines for methamphetamine-dependence.

INTRODUCTION

Methamphetamine (MA) has been identified as a growing problem in the LRE region. Between 2016 and 2019 admissions in the LRE region with MA as the primary drug increased almost four-fold and surpassed admissions for marijuana for the first time in FY18.

Local law enforcement leaders and SUD clinicians in the region have also raised concerns that there is an increasing prevalence of availability and use of stimulant in the LRE region.

In response, the Allegan Substance Abuse Prevention Task Force and Lakeshore



Regional Entity (LRE) commissioned KWB Strategies to conduct this report to assist the region in understanding the current and historical prevalence of MA related problems in the region. The LRE region includes the counties of Allegan, Kent, Lake, Mason, Muskegon, Oceana, and Ottawa in the State of Michigan.

The purpose of this assessment is to:

- Explore the local magnitude, impact, and unique challenges of MA and other illicit stimulants in the region.
- Provide actionable information
- Identify available research-based interventions
- Support local and regional development of targeted, data-driven strategies to address illicit stimulant use.

The primary focus of this report is MA and the secondary is cocaine. Misuse of prescription stimulants has not been included in this report because prescription drug misuse has been given much attention in recent years. Polysubstance use of stimulants and opioids will be discussed due to the dangers and prevalence of combining opioid and stimulant use.

Where variations were found between counties, information has been provided at the county-level.

Methodology

The following report relied on multiple methods to collect information related to illicit stimulants in the region. Where local data was not available, or feasible to collect, state and national research studies are referenced. When a fiscal year (FY) is referenced it represents a period of October 1st through September 30th of the year identified.

DATA SOURCES

Behavioral Health Treatment Episode Data Set (BHTEDS): BHTEDS data for select items from admission and discharge records were provided to the researcher for FY16-19. These records include all publicly funded treatment admissions for residents in the region for these years. For years that preceded the LRE, the number of admissions by primary drug of choice, was retrieved via <https://mi-suddr.com>.

Overdose deaths: Data from the Michigan Death Certificate File, Division for Vital Records and Health Statistics, was provided upon request by the Michigan Department of Health and Human Services.

Arrests: Upon request the Criminal Justice Information Center of the Michigan State Police provided data from the Michigan Incident Crime Reporting Unit for FY17-19. The generated reports include all arrests for each county in the LRE region and state-wide by type. MA related arrests were calculated including MA (possession, manufacture, delivery, maintaining/operating a meth lab, use, and solicit to purchase) and crystal meth (possession, delivery, manufacture, and use). Regional numbers were calculated by combining the seven counties in the region.

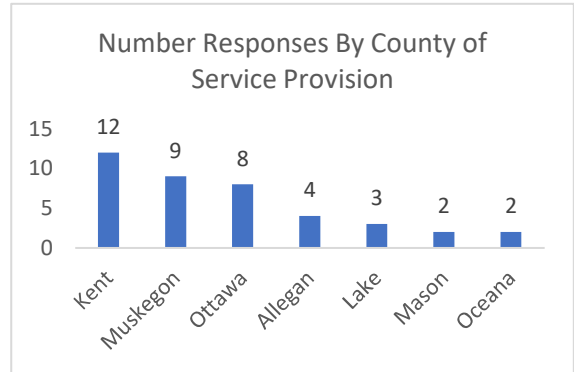
High Intensity Drug Trafficking Areas (HIDTA) Drug Seizures: Upon request data collected by HIDTA for drug seizures reported by Michigan HIDTA initiatives (drug teams) was provided for 2015 through 2019. Data was exported from the HIDTA Performance Management Process (PMP) database. It is important to note that this ONLY captures drug seizures reported by Michigan HIDTA initiatives (drug teams).

HIDTA seizures data was calculated for the counties of the LRE region, including Allegan, Kent, Lake, Mason, Muskegon, Oceana, and Ottawa. State-level data was calculated where appropriate to provide comparison.

It is important to note that data provided by HIDTA does not contain seizures conducted by other (non-HIDTA funded) federal, state, or local law enforcement agencies and therefore may be an underrepresentation of drugs seized in the area.

SUD Treatment Clinician Survey: During

July and August of 2020 the LRE gathered input via an on-line questionnaire from clinicians within the substance use disorder treatment provider network. The survey collected input from clinicians serving every county within the region with the greatest number of responses from the most populous counties. Twenty-three clinicians completed the survey representing eight provider organizations.

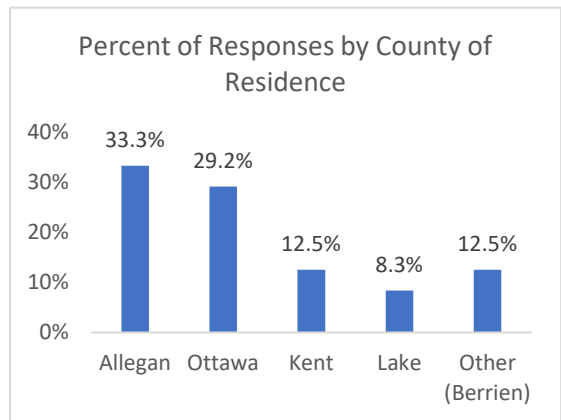


Youth Attitudes and Awareness Survey:

During August and September of 2020, Prevention providers in the LRE with access to teens youth coalitions or programming were asked to have youth complete a brief online questionnaire. This survey was designed to provide a better understanding of what youth know and believe about MA and cocaine in our area. An alternative printable version was also provided.

A total of 24 youth completed the survey representing four counties in the region. Four youth from Berrien county completed the survey and were included in analysis due to the small sample size and geographic proximity.

Grade	Responses
7th or 8th	1
9th or 10th	6
11th or 12th	17
Total	24



Youth Surveys: The Michigan Profile for

Healthy Youth (MiPHY) survey is an anonymous computer-based survey administered to 7th, 9th, and 11th grade students by the Michigan Department of Education and collects information on health behaviors and related risk and protective factors. For students in grades 9 and 11 the survey gathers information about recent cocaine and recent MA use. Regional rates were calculations using data from each county in the region that participated in the MiPHY. The only county not included in this regional rate is Ottawa which conducts a different survey that captures lifetime use for these substances. Data referenced for Ottawa is provided from that data source.

WHAT ARE STIMULANTS?

Stimulants are a class of drugs that speed up the messages between the brain and the body. They can make a person feel more awake, alert, confident or energetic.¹ Large doses of stimulants can cause over-stimulation, causing anxiety, panic, seizures, headaches, stomach cramps, aggression, and paranoia. Long-term use of strong stimulants can also cause several adverse effects.

Stimulants include caffeine, nicotine, amphetamines, and cocaine. Although these stimulants have similar behavioral and physiological effects, methamphetamine (MA) remains in the brain longer, and results in a much higher level of dopamine resulting in greater potential for addiction.ⁱⁱ

Methamphetamine

Powerful, highly addictive stimulant

Also known as meth, blue, ice, and crystal, etc.

White, odorless, bitter-tasting crystalline powder that easily dissolves in water or alcohol.

Consequences of MA misuse can be terrible for the individual—psychologically, medically, and socially.

Using the drug can cause memory loss, aggression, psychotic behavior, damage to the cardiovascular system, malnutrition, and severe dental problems.

Can be smoked, snorted, injected, or swallowed in pill form.

Cocaine

Powerfully addictive stimulant drug

Made from the leaves of the coca plant native to South America.

Although health care providers can use it for valid medical purposes, recreational cocaine use is illegal.

Users may mix it with other drugs such as the stimulant amphetamine, or synthetic opioids, including fentanyl.

Most often snorted, injected, or inhaled.

EVIDENCE OF A GROWING PROBLEM

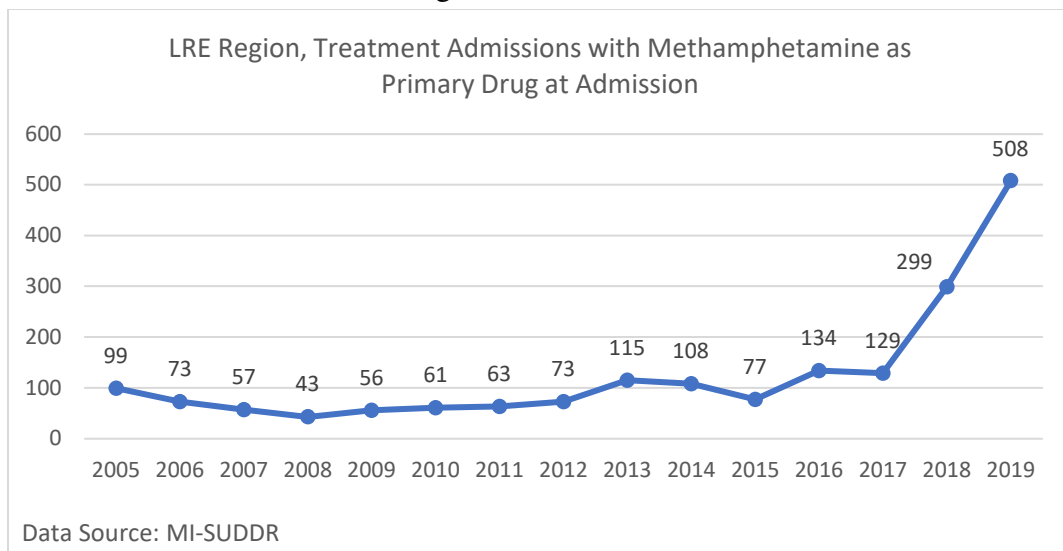
Methamphetamine (MA) was given substantial attention early in the 2000’s with Allegan County at the forefront of efforts state-wide and in the region. At the time there was a substantial increase in MA related problems due to “mobile” laboratories which were easily set up in vehicles, easy to conceal, and could be quickly dismantled.

In 2004 federal and state regulations were put in place to make access to ingredients for meth production more difficult to obtain. Communities also worked to stop the spread of MA use through education programs, increased law enforcement efforts, and addiction treatment programs.

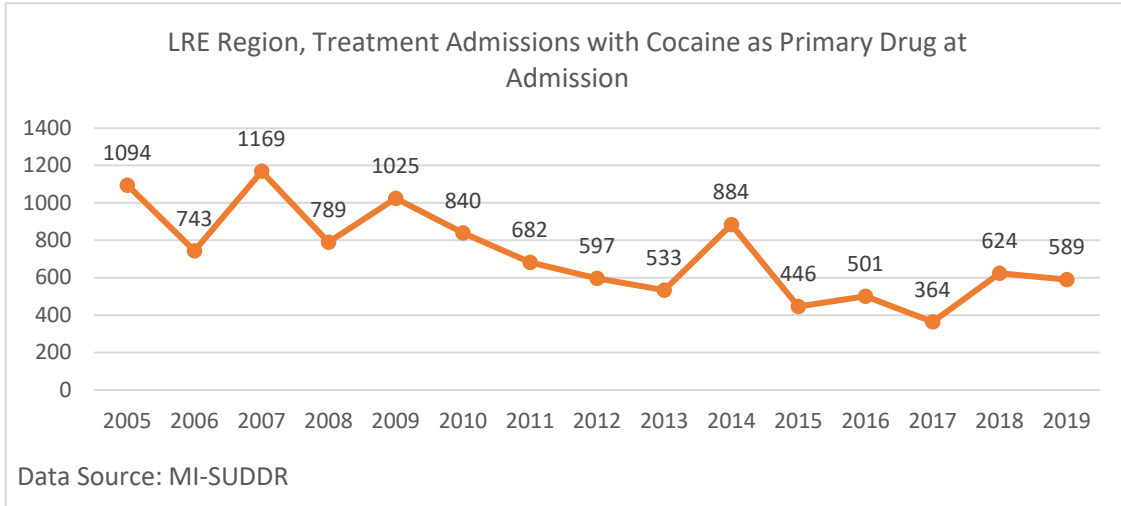
Nationally, the demand to use illicit stimulants is rapidly increasing, unlike demand for opioids has been remaining relatively stable. According to the National Survey on Drug Use and Health, the demand for stimulants has almost reached the same high levels as opioids. They report that new initiates (used for the first time in past twelve months) for cocaine, MA, and prescription (Rx) stimulants combined, rose to 2.4 million in 2017, which was about the same level as new initiates of heroin and Rx opioids.ⁱⁱⁱ

TRENDS IN TREATMENT ADMISSIONS

Following regulations in 2004, treatment admissions continued to decline from 2005 through 2012. In recent years, admissions for MA began increasing dramatically and are now five times the number occurring in 2005. In FY16 MA as primary drug accounted for 2.1% of admissions, increasing to 8.1% in FY19.

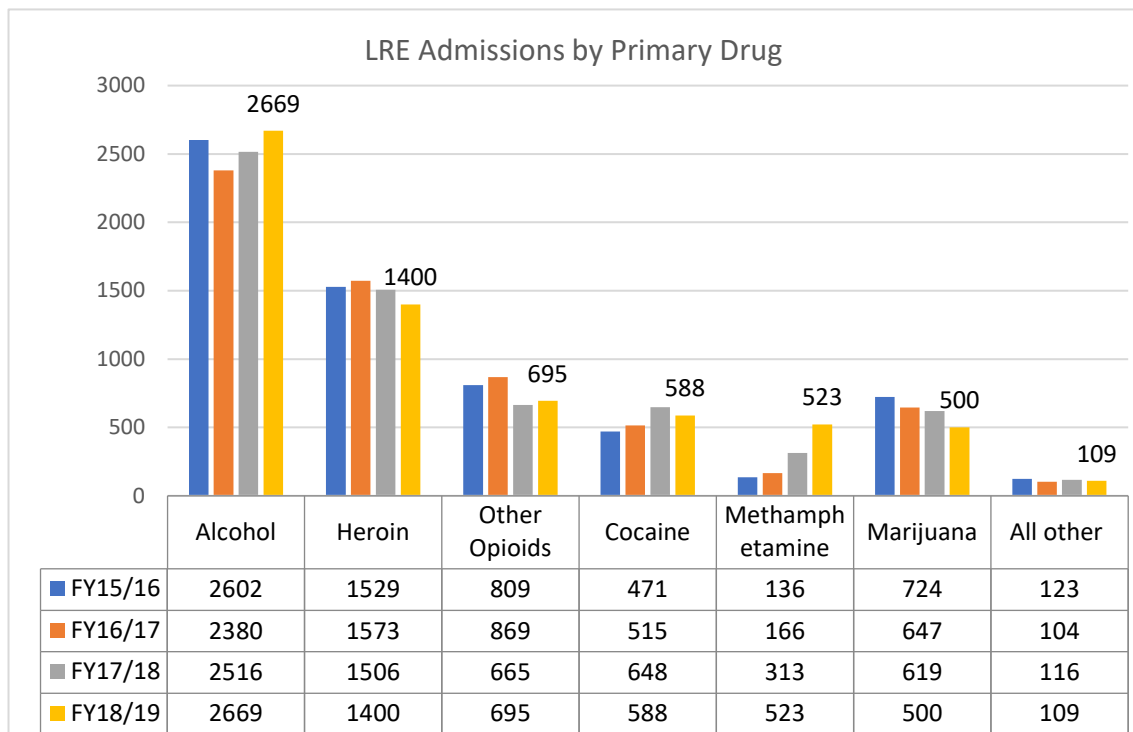


Treatment admissions for cocaine as the primary drug have been more variable over the years with an overall decreasing trend between 2005 and FY17 (except for FY14) and increasing slightly in FY18 and 19. Admissions with cocaine as the primary drug accounted for 9.1% of all admissions in FY19.



Comparison to other substances:

In comparison to admission for other substances, alcohol continues to account for the greatest number of treatment admissions, followed by heroin and other opioids, and then cocaine and MA. However, non-stimulants are not increasing as rapidly and in FY18/19 the number of admissions for MA surpassed admissions for marijuana for the first time.



“

I've seen a huge amount of client's progress from cocaine to meth. Meth is not seen as desirable initially due to stigma but as soon as it is tried, people typically find that they prefer it (not all, but majority in my experience).

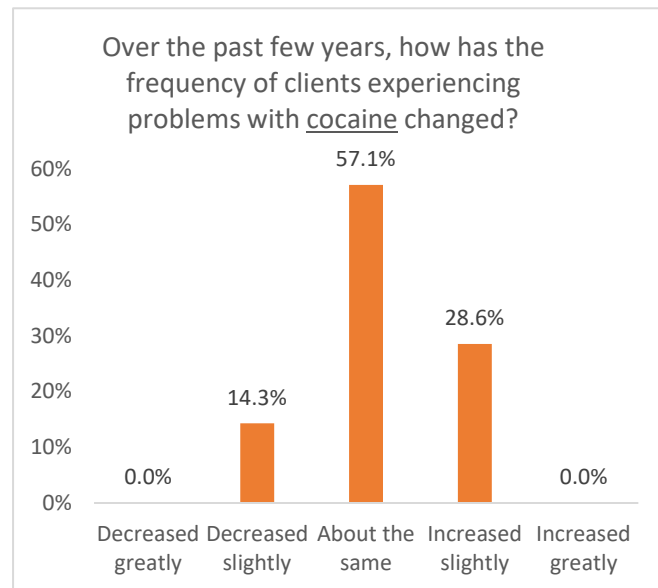
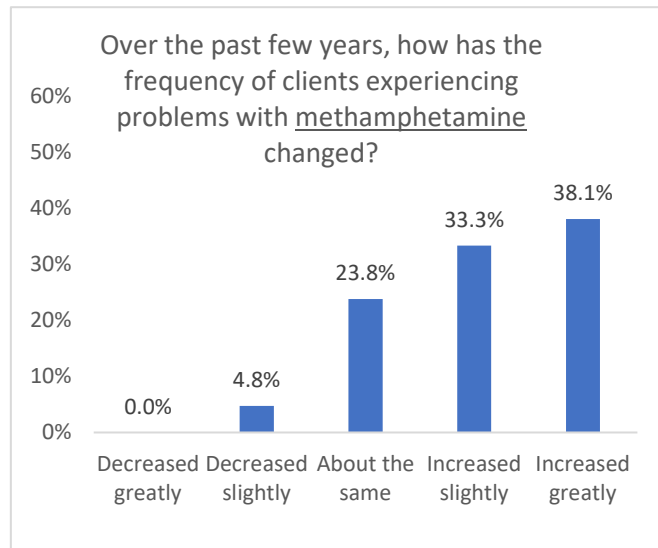
SUD Clinician in LRE Region

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Two-thirds (77%) of clinicians reported an increase in clients experiencing problems with MA in recent years and one-fourth (28.6%) reported an increase for cocaine. However, none reported cocaine had ‘increased greatly’.

One clinician noted that MA used to be a rural issue but now it is moving into the urban setting.

When asked how much of a problem these substances are in their county 70% of clinician respondents indicated MA is a problem ‘to a great extent’ compared to 35% for cocaine.



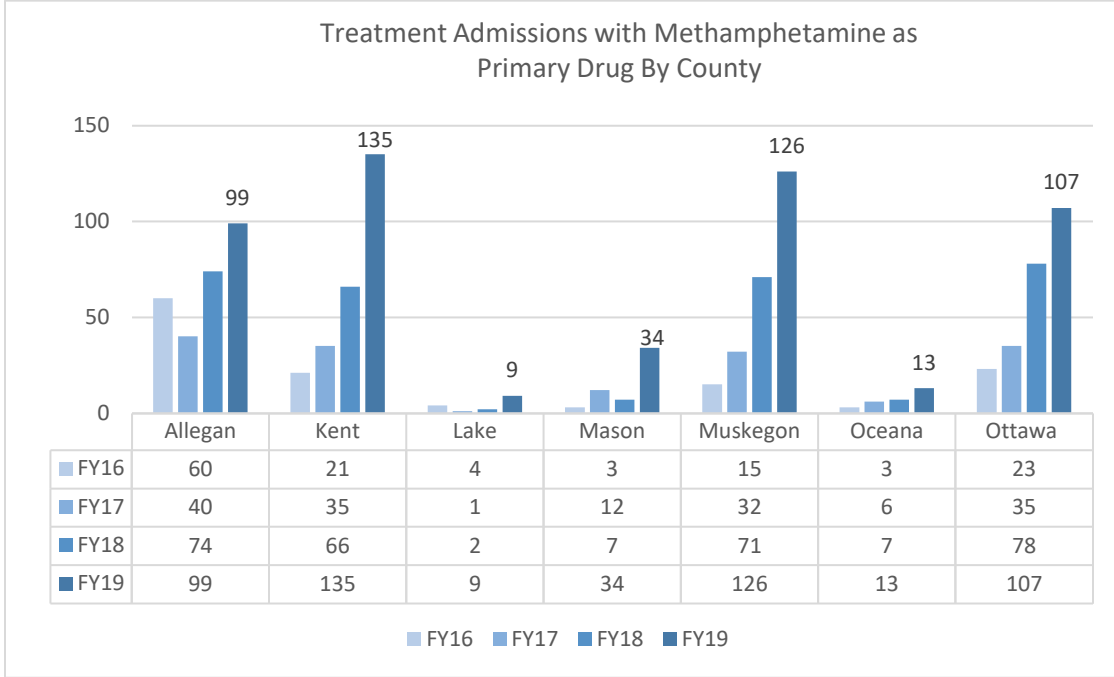
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Because of the strength of the drug, I believe the opportunity to become addicted is greatly accelerated

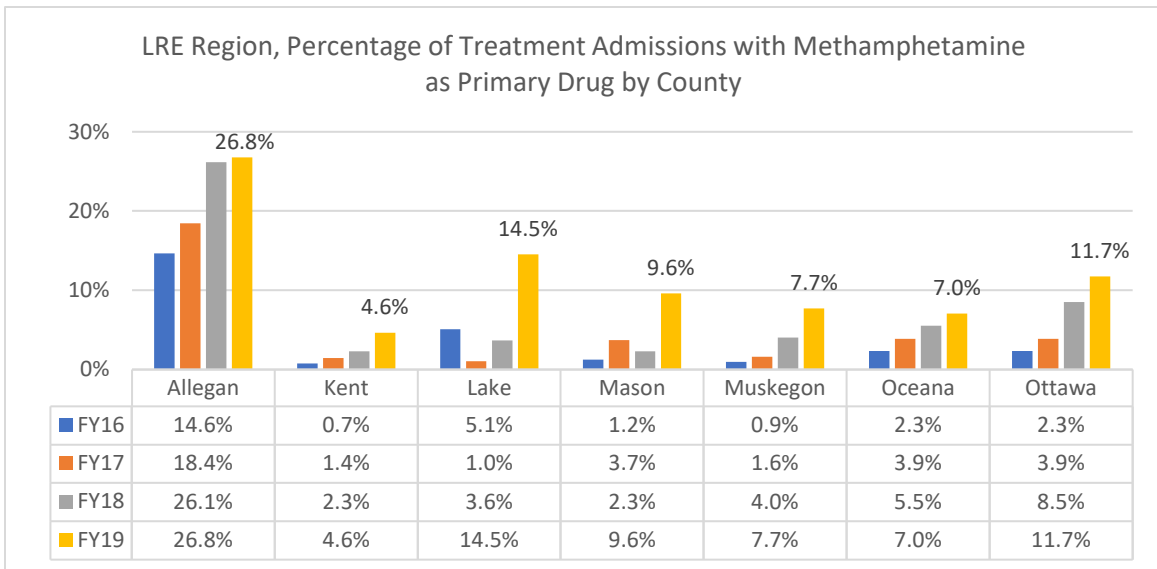
SUD Clinician in LRE Region

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In recent years, treatment admissions for MA as the primary drug have increased substantially in most LRE counties. Admissions are more dispersed throughout the region than in the early 2000's, with the greatest number occurring in Kent and Muskegon counties.



When admissions by county are considered as a percent of total admission to offset for county size variation, admissions with MA reported as primary account for the highest proportion in Allegan County, followed by Lake and Ottawa counties.



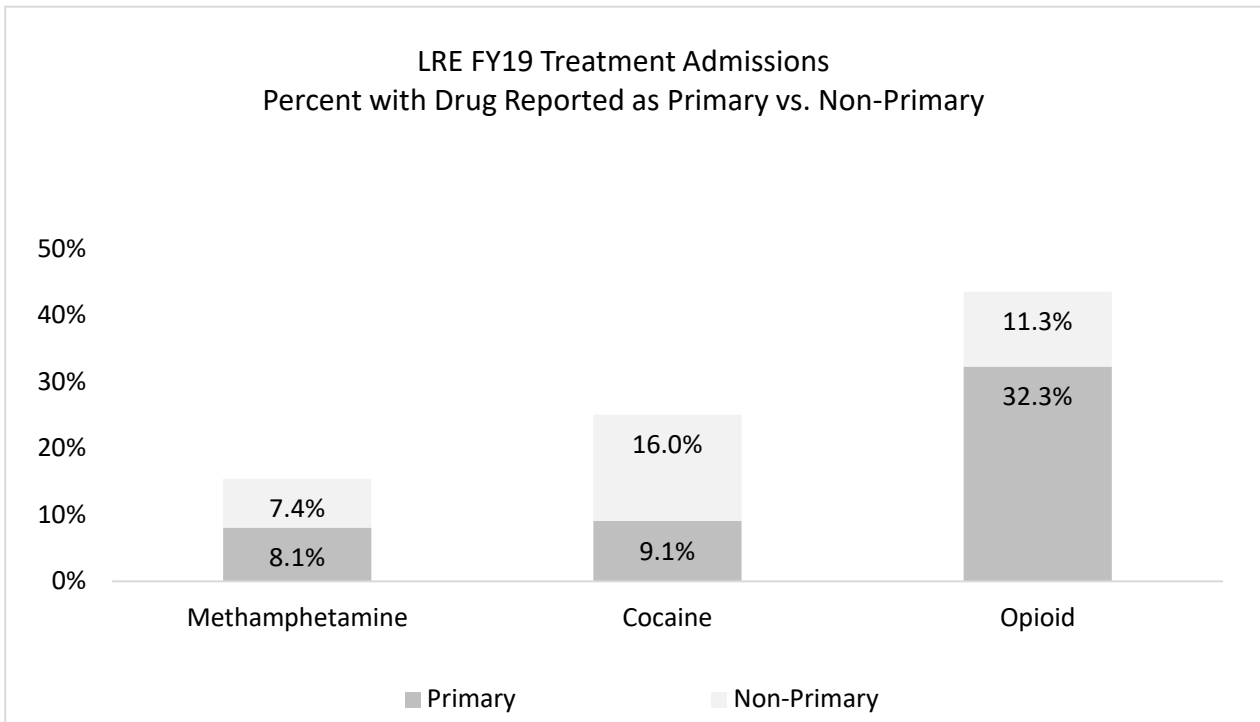
Primary vs. Non-Primary Drug of Choice

MA-involved admissions were almost equally split between primary and non-primary drug while cocaine-involved admissions are more frequently reported as non-primary. Because data analysis related to treatment admission trends primarily relies on primary drug at admission, the prevalence of stimulants may have been less noticeable and masked the magnitude of stimulant issues in the region.

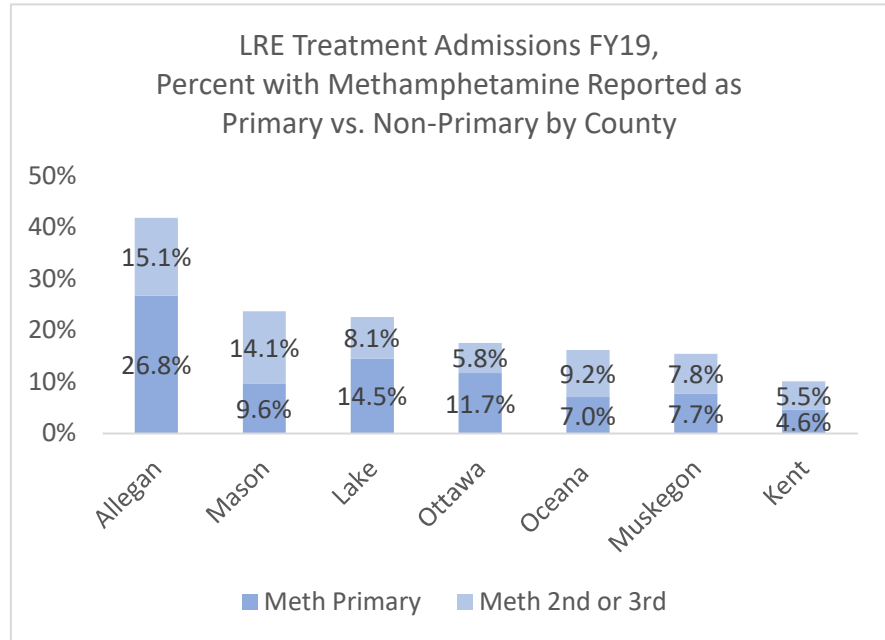
Note:
When an admission involves a substance this means the substance was reported as a primary, secondary, or tertiary drug of choice at admission.

Primary = primary drug of choice
Non-Primary = Secondary or tertiary drug of choice

In comparison, opioids are more frequently reported as primary increasing the visibility of the opioid epidemic more noticeable since data review by substance typically only considers the primary drug of choice.

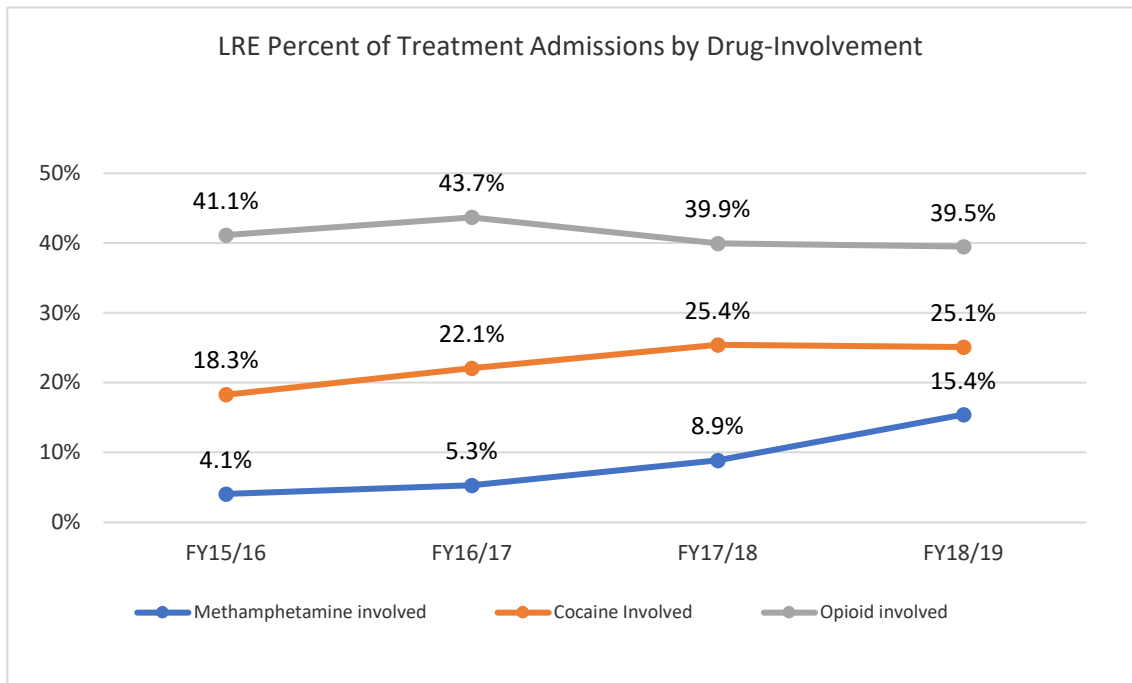


The proportion of MA involved admissions reported as primary varies by county. MA was more likely to be the primary drug of choice in Allegan, Lake and Ottawa counties.



As a proportion of all admissions MA-involved admissions increased continually and substantially FY16 and FY19. Cocaine-involved admission also increased but to a lesser extent.

Although opioid-involved admissions continue to exceed stimulant-involved admissions in the LRE region, it should be noted that opioid-involved admissions have been declining while stimulant-involved have been increasing.

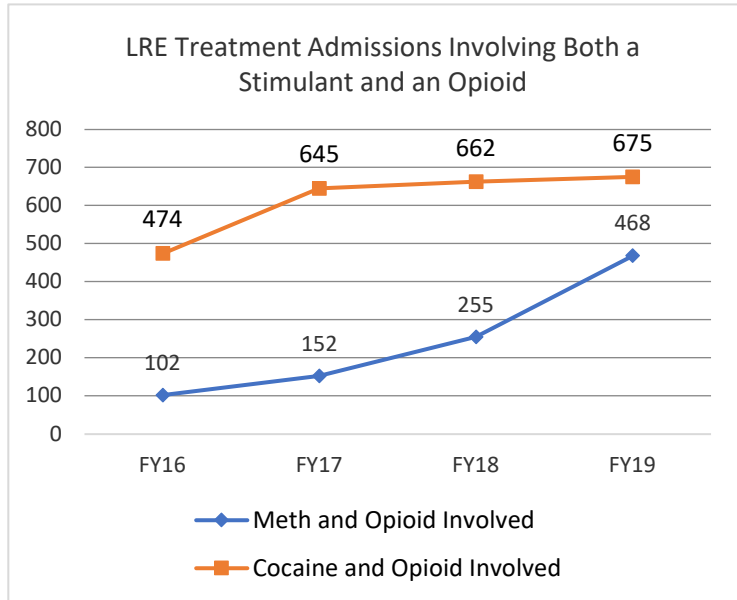


Stimulant and Opioid Polysubstance Use

The Center for Disease Control has noted a growing polysubstance landscape and specifically called out the combination of opioids and stimulants as a serious concern.

Locally, admissions involving both MA and an opioid have increased 372% since FY16.

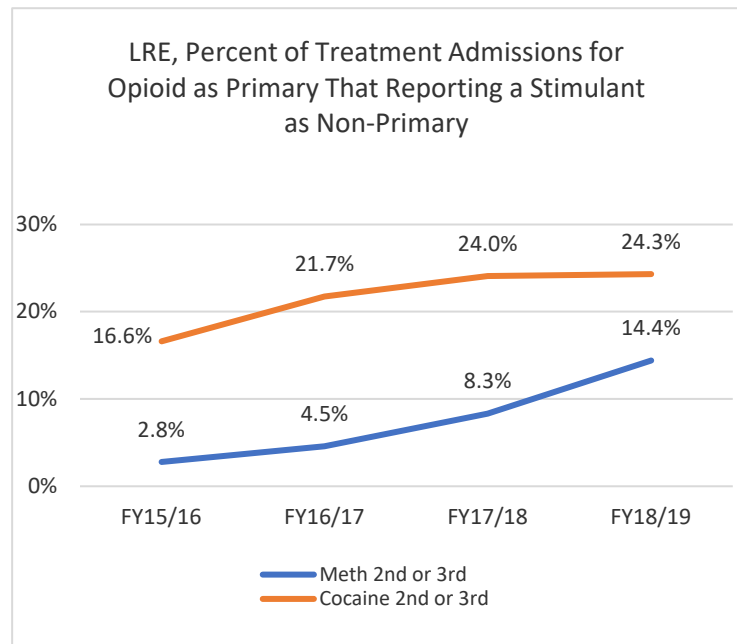
In FY19 these admissions accounted for 7.2% of all admissions, compared to only 1.6% in FY16.



As programs work to address the opioid epidemic it is important to note that stimulant use has been increasing among clients admitted with an opioid as their primary drug.

In FY19, for admissions with an opioid identified as primary:

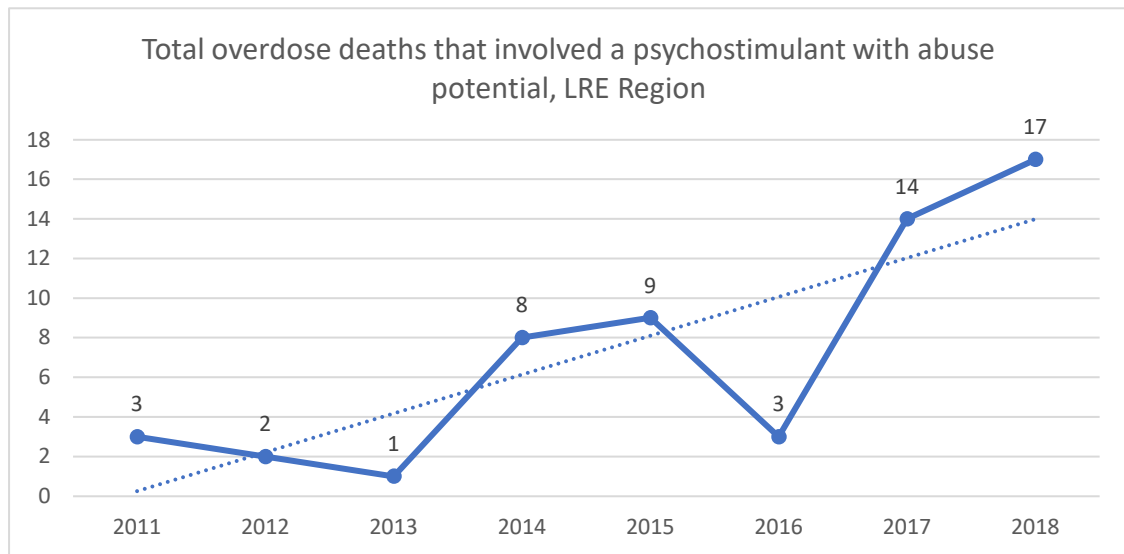
- Almost one-in-seven (14.4%) reported MA as non-primary; a 400% increase since FY16.
- Almost one-in-four (24.3%) report cocaine as a non-primary, a 46% increase since FY16.



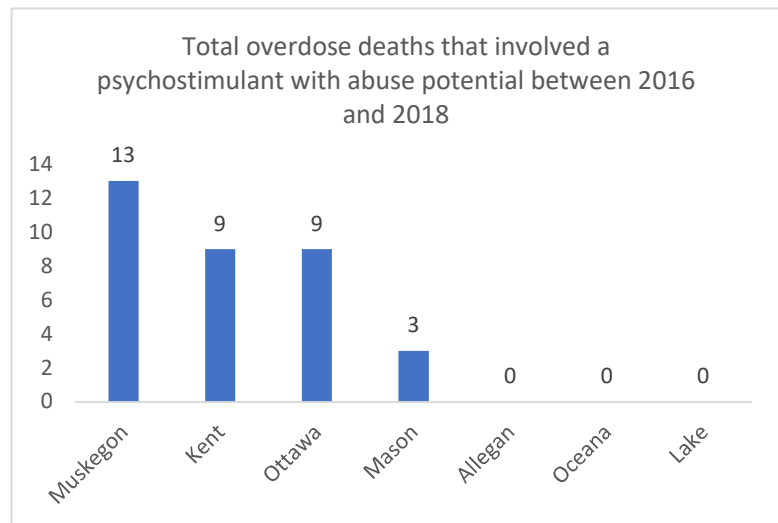
OVERDOSE DEATHS

According to the CDC, “Psychostimulants with abuse potential include drugs such as methamphetamine (MA), MDMA, dextroamphetamine, levoamphetamine, methylphenidate (Ritalin), and caffeine.”

Data provided by the Michigan Department of Health and Human Services for the LRE region shows that overdose deaths that involved a psychostimulant with abuse potential have been increasing steadily in the LRE region between 2016 and 2018. According to NIDA, most overdoses involving a psychostimulant with abuse potential involve MA.¹

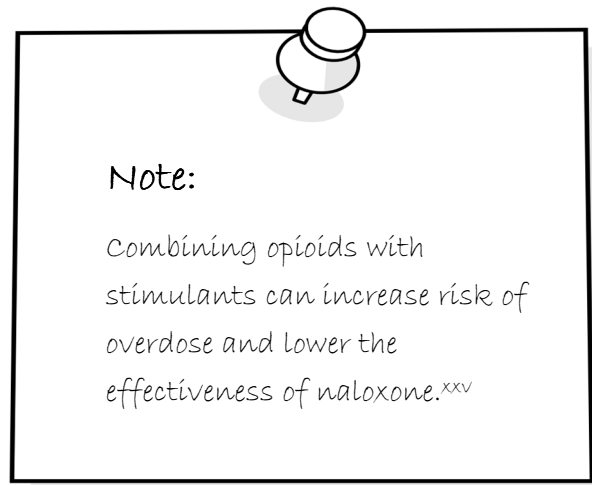


The largest number of psychostimulant overdoses involved Muskegon county residents followed by Kent and Ottawa counties. No overdoses were recorded during this time frame for Allegan, Oceana, or Lake counties.



Stimulant and Opioid Involved Overdose Deaths

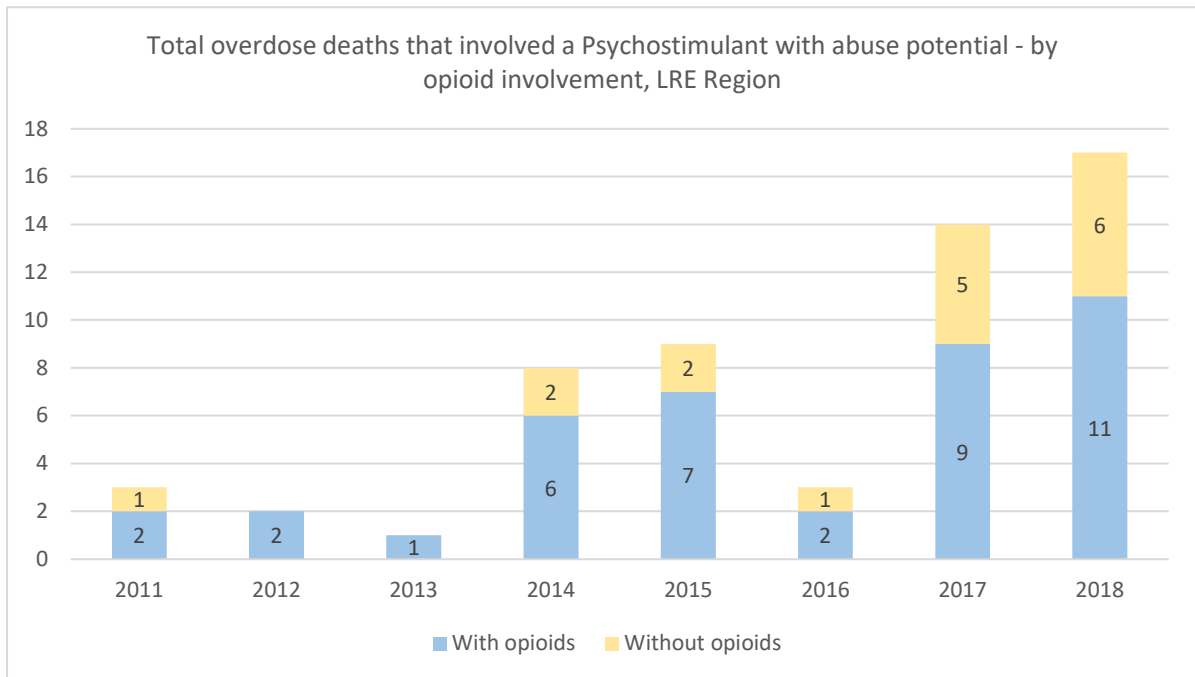
Nationally, in 2017 there were 10,333 overdose deaths involving psychostimulants: a 37.0% increase from the prior year. The CDC reports that approximately half (50.4%) of these psychostimulant-involved deaths also involved opioids.^{iv}



Note:

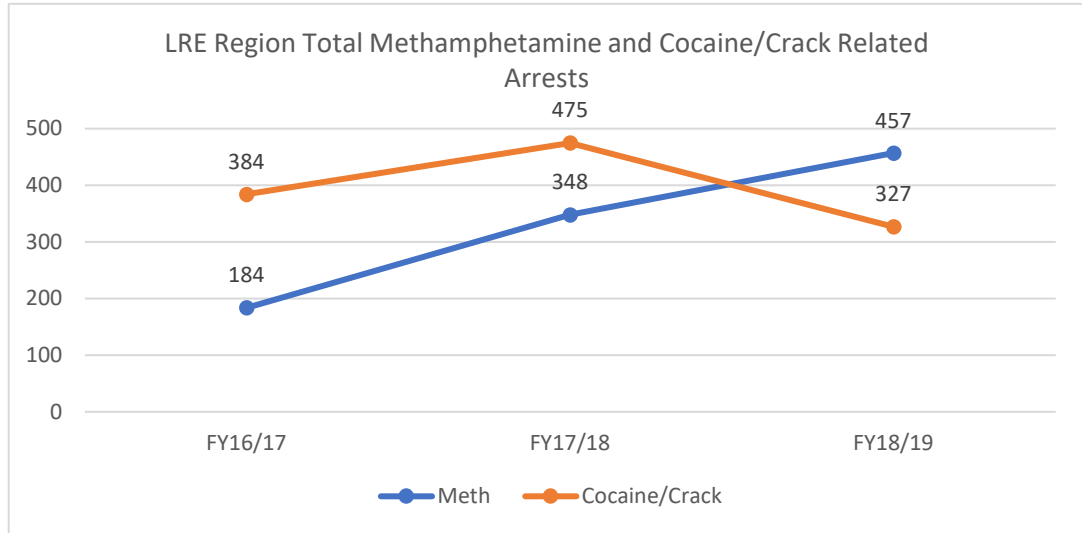
Combining opioids with stimulants can increase risk of overdose and lower the effectiveness of naloxone.^{xxv}

Almost two-thirds (65%) of the overdose deaths in the region that involved a psychostimulant also involved an opioid between 2016 and 2018.



STIMULANT RELATED ARRESTS

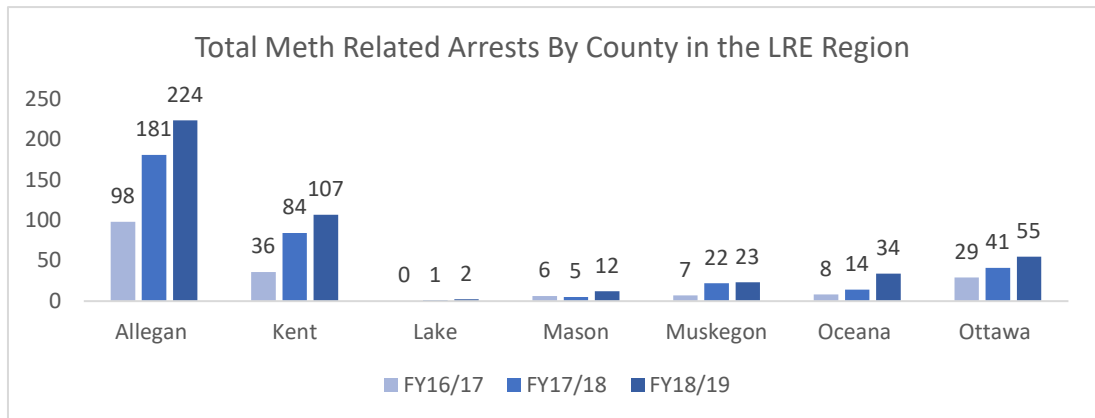
In the LRE region there has been a 148% increase in methamphetamine (MA) related arrests between FY17 and FY19. Cocaine related arrests increased in FY18 and decreased in FY19.



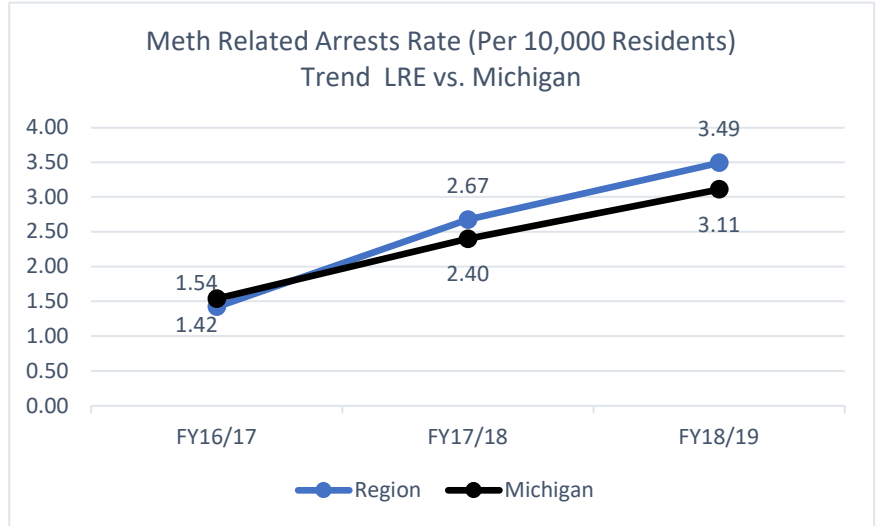
Methamphetamine (MA) Related Arrests

Allegan county had the highest number of MA arrests in the region. Between FY17 and FY19 arrests have been increasing throughout the region but remain much lower than in Allegan County. Allegan county accounts for less than 9% of the region's population yet almost half (49%) of MA related arrests occurred in the county.

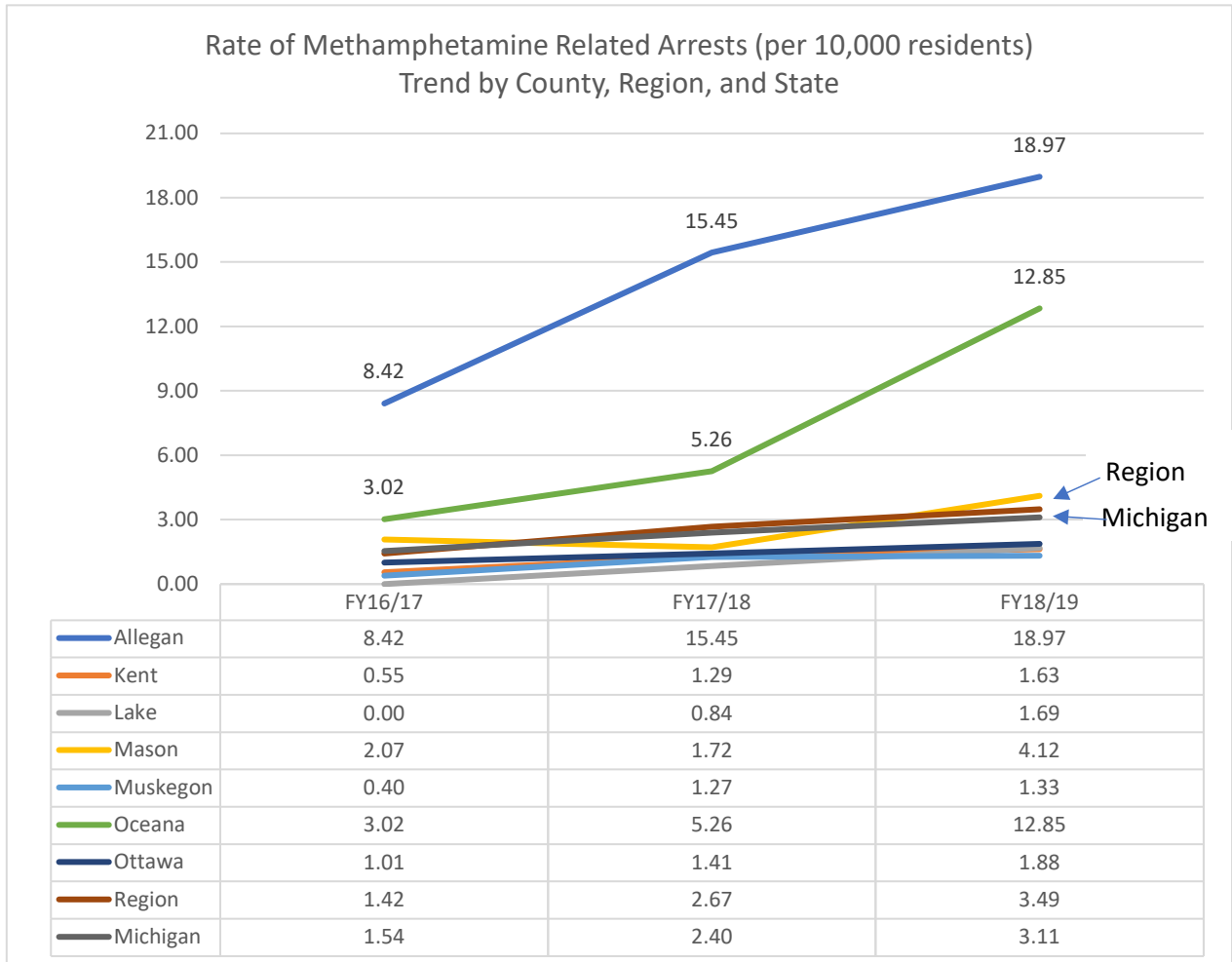
Local stakeholders note that the high number of arrests in Allegan County is likely caused, at least in part, to ongoing efforts and attention by local law enforcement.



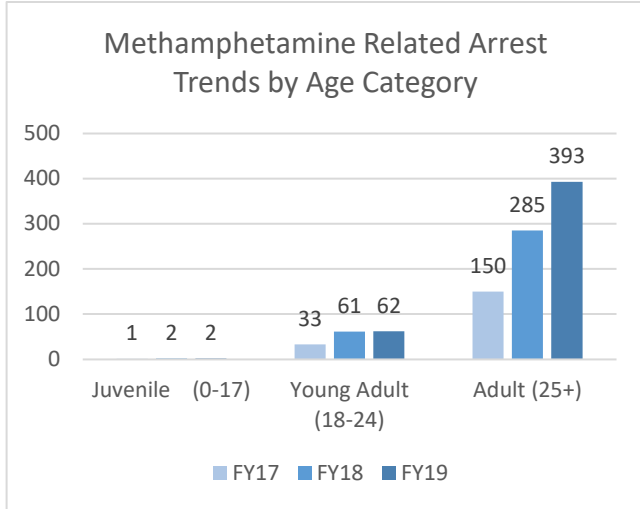
When arrests are considered as a rate to account for population size differences, the LRE region's rate exceeded the state's, and increased 146% since FY17, compared to a 101% increase state-wide.



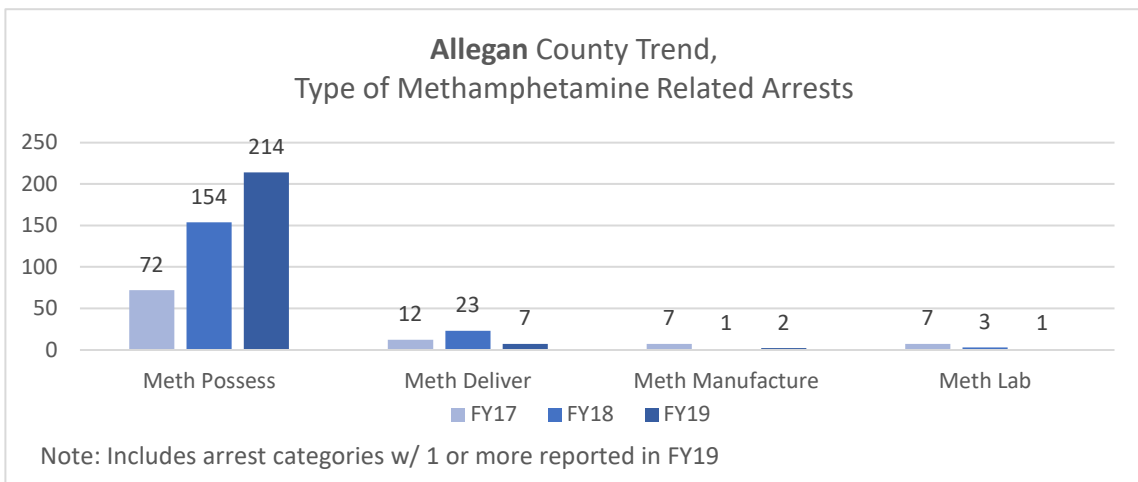
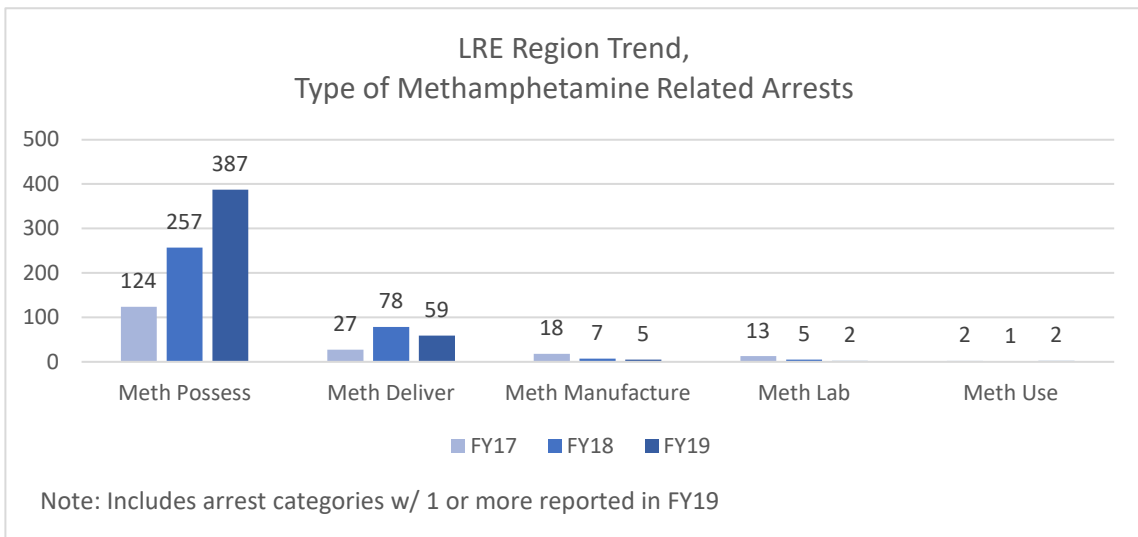
The rate of MA related arrests was highest in Allegan and Oceana counties. Rates in these counties have grown at an alarming rate and greatly exceed statewide and regional rates



MA-related arrests are primarily occurring among adults age 25 or older.

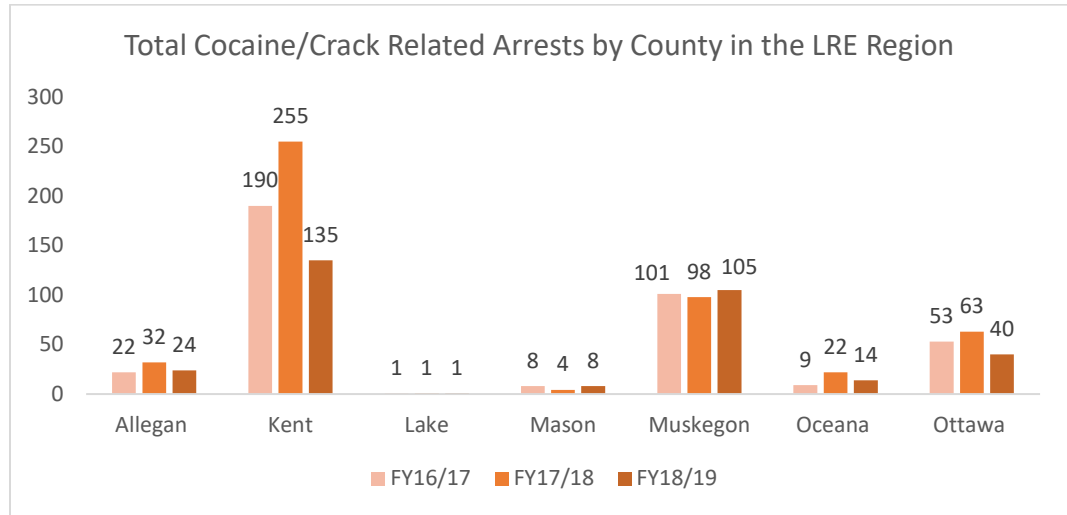


Type of MA arrests are primarily for possession. In recent years, arrests for MA manufacturing and meth labs are very low in Allegan County and throughout the region.

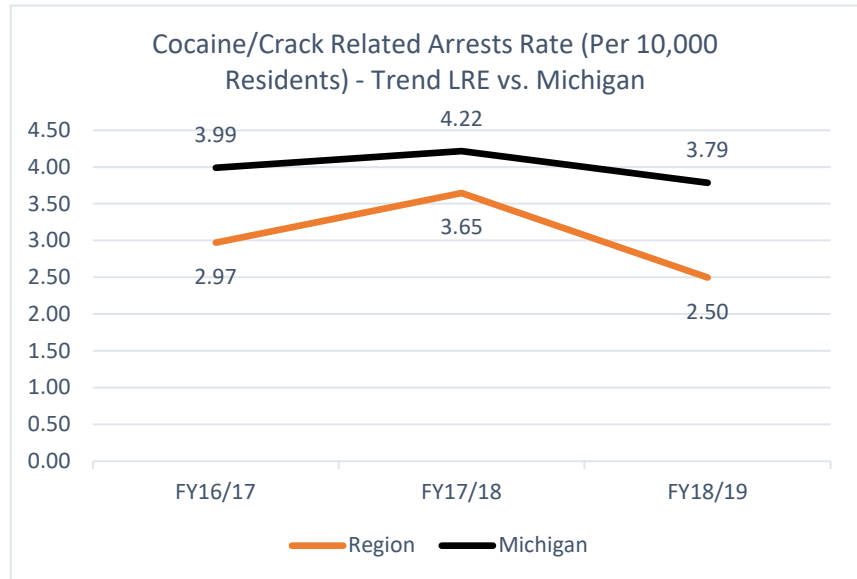


Cocaine Related Arrests

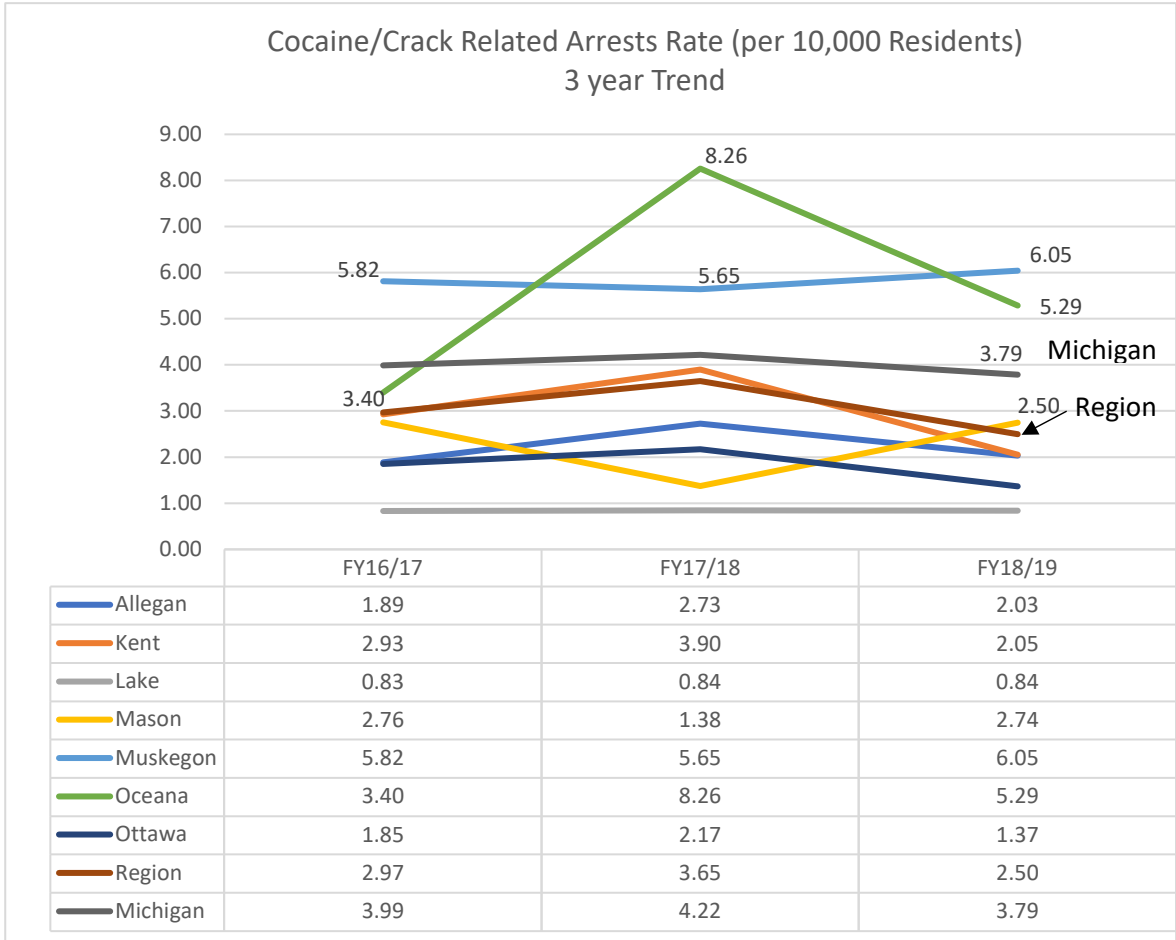
Kent county had the highest number of cocaine related arrests which decreased substantially in FY19. Muskegon county had the next highest number of arrests and remained relatively stable between FY17 and FY19.



When arrests are considered as a rate to account for population size variation, the LRE region’s rate of cocaine-related arrests was lower than state-wide for each year between FY17 and FY19.

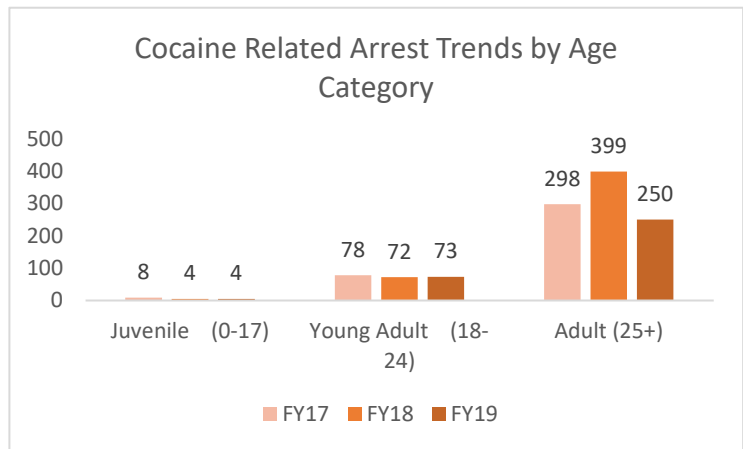


Within the LRE Region the rate of cocaine related arrests is lower than statewide but higher in Muskegon and Oceana Counties. Rates remained relatively stable in Muskegon county and fluctuated in Oceana county.



Cocaine-related arrests are primarily occurring among adults age 25 or older.

Type of cocaine-related arrests are primarily for possession or selling of cocaine and crack.



AVAILABILITY

According to the National High Intensity Drug Trafficking Areas Emerging Threat (NETI) report in 2018, “Trafficking in illicit stimulants and prescribing of prescription stimulants have both increased over the past 7 years, along with increasing demand for illicit stimulants and non-medical use of Rx stimulants.”^v

The NETI 2018 report indicates that the majority of MA seized in the U.S. comes from Mexican Drug trafficking organizations (DTOs) that continue to use the P2P method in response to the ban on pseudoephedrine in Mexico.

According to NETI 2018:

- Street prices have decreased because DTO’s have improved potency and increased production.
- DTOs often conceal MA in solution to avoid detection at the border and smuggle larger quantities.
- Most clandestine MA labs that produce MA within United States are small “user-type” that produce under 2 ounces per batch.

“

Prior to COVID-19, hands down, crystal methamphetamine was the most available controlled substance on the street in my opinion ... The profit margin on crystal methamphetamine made it a lucrative investment.”

Lt. Andrew Ambrose,
West Michigan Enforcement Team (WEMET)

”

“

COVID-19 lockdown at the Mexican border has reduced the ability to smuggle methamphetamine into the US resulting in an increased street price.

Prior to COVID-19 crystal methamphetamine was selling for as little as \$20 a gram depending on the quantity purchased. The average user was paying between \$40 and \$60 a gram. The price is now around \$80 to \$100 a gram for crystal methamphetamine.

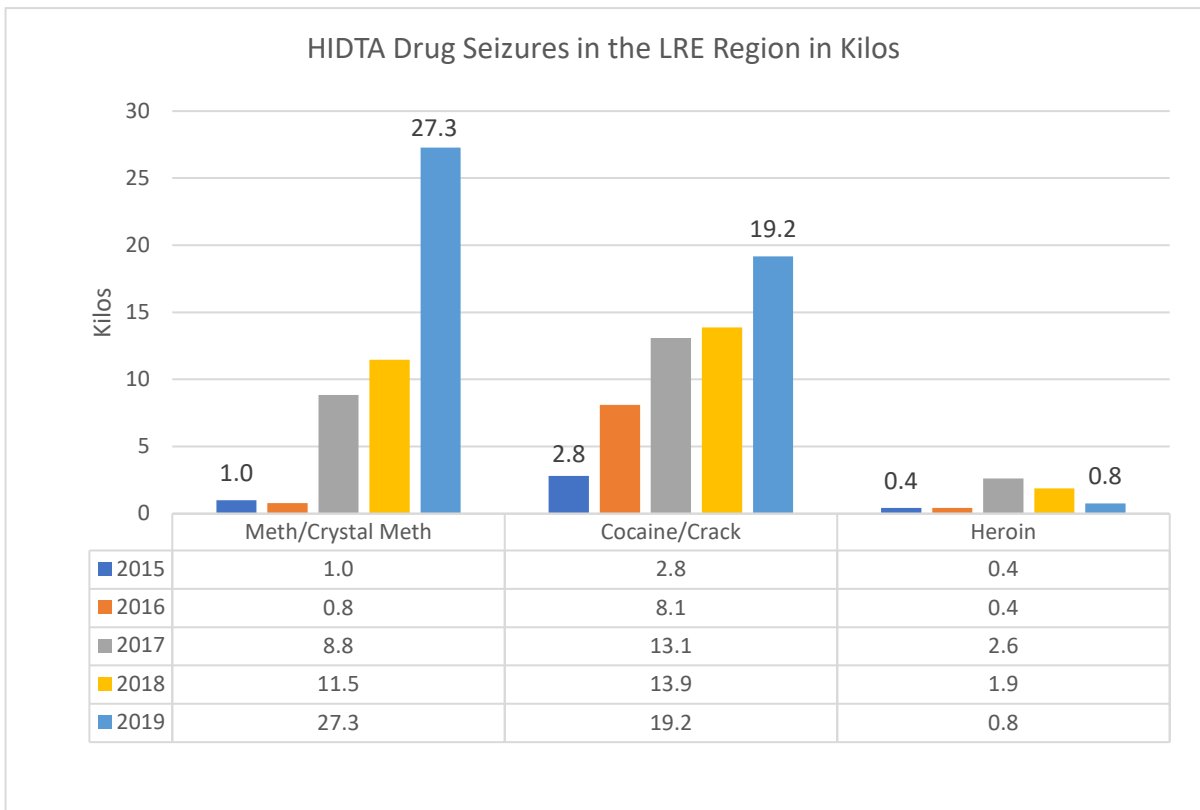
Lt. Andrew Ambrose, West Michigan Enforcement Team (WEMET)
July 2020

”

Data was requested from HIDTA for seizures occurring in the seven counties of the LRE region to better understand the local availability of stimulants. HIDTA seizure data reflects the seizures reported by Michigan HIDTA initiatives (drug teams). As noted by HIDTA, seizure data serves as a surrogate measure for the supply and availability of local illicit substances. It is not a direct measure of substance availability and the quantities of drugs seized vary with the changes in illegal drug supply because law enforcement intentionally focuses investigations and seizures on those drugs most frequently trafficked.^{vi} Data provided by HIDTA does not include seizures conducted by other federal, state, or local law enforcement agencies as HIDTA does not collect data from non-HIDTA funded drug teams. HIDTA supports teams in Kent, Muskegon, and Allegan counties.

In the LRE regions’ seven counties, HIDTA MA and cocaine seizures increased substantially between 2015 and 2019, while heroin decreased.

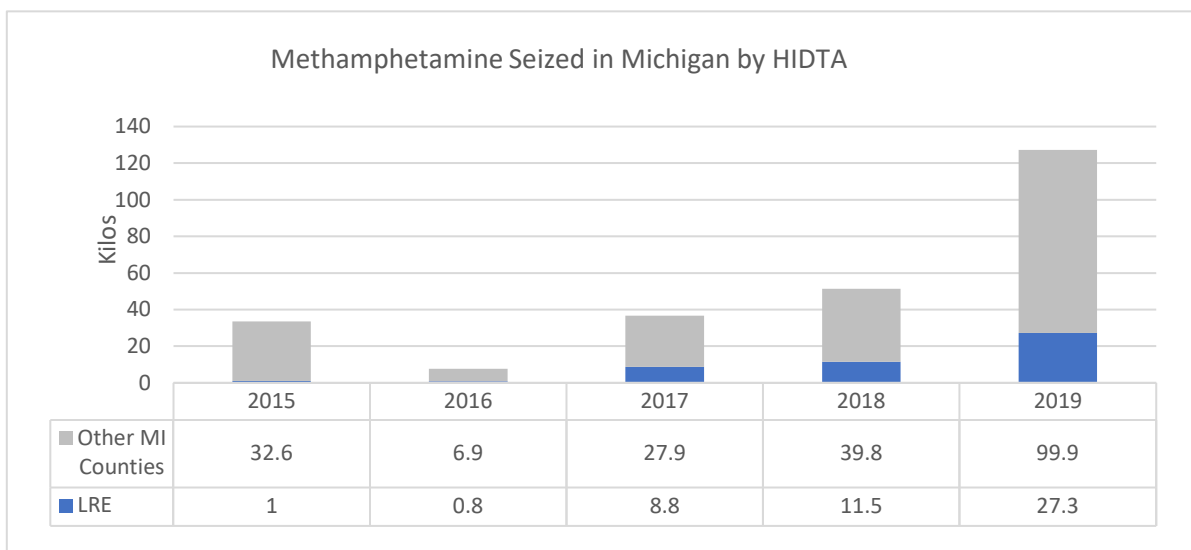
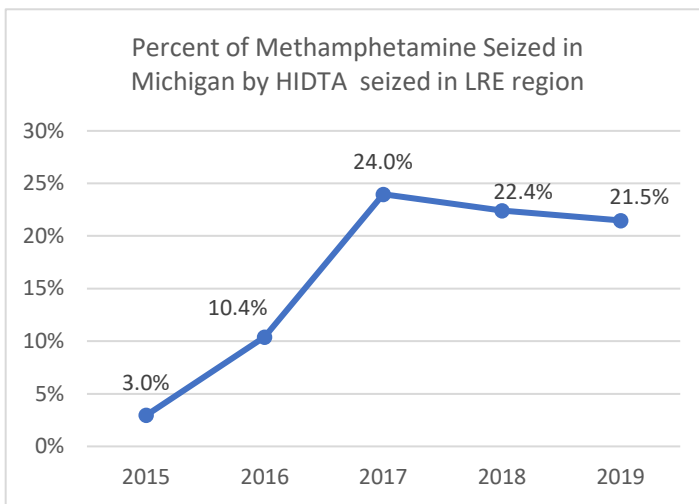
- ↑ 2600% for MA, including crystal meth
- ↑ 586% for cocaine, including crack cocaine



The proportion of MA seizures in Michigan that occurred in the seven counties of the LRE region increased between 2015 and 2017 and declined somewhat in recent years.

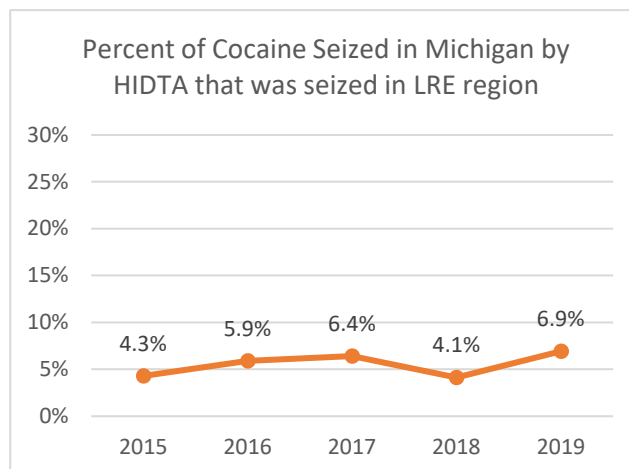
Although the LRE region accounted for only 13% of the state’s population in 2019, 21.5% of MA seized by HIDTA state-wide was seized in the LRE region, compared to only 3% in 2015.

Statewide MA seizures also increased but to a lesser extent than in the LRE region with an almost three-fold increase compared to a 26-fold increase in the LRE region.

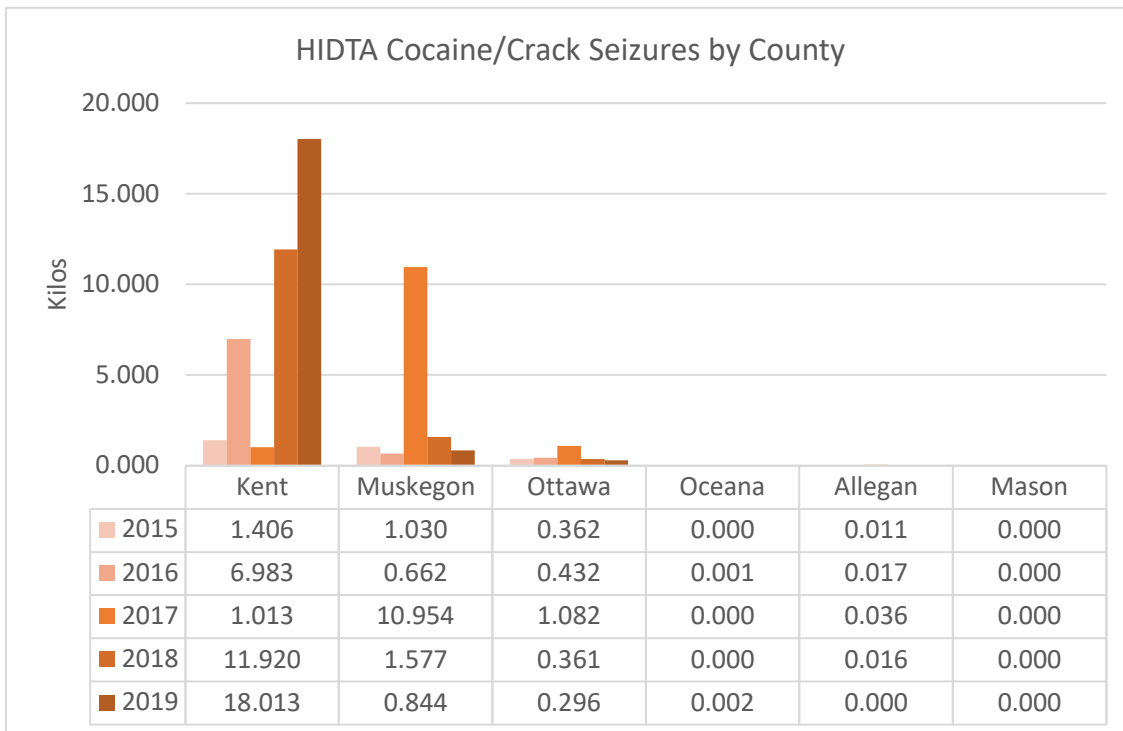
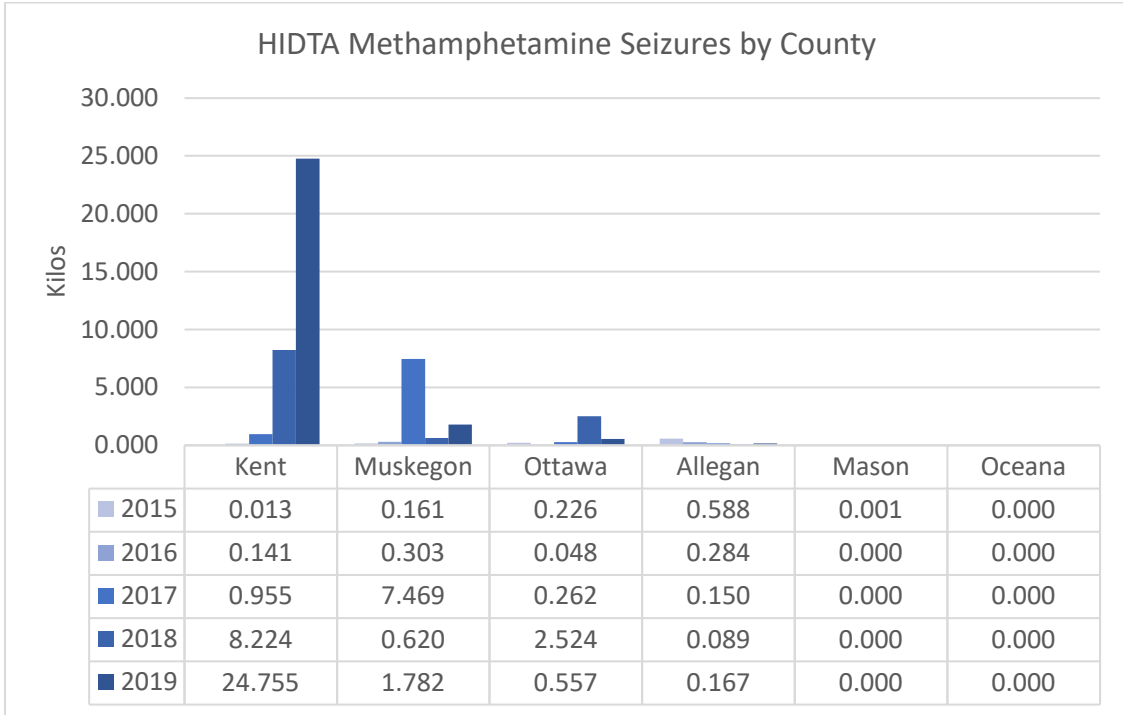


Statewide there was a 582% increase in cocaine seized between 2015 and 2019. Seizures of cocaine occurring in the LRE region increased 323% during the same period.

In 2019 277 kilos of cocaine were seized state-wide with seizures occurring in the LRE region accounting for almost 7%.



Within the LRE Region, the majority of MA and cocaine seizures occurred in Kent county followed by Muskegon and Ottawa Counties.



TREATMENT EPISODE CHARACTERISTICS

An analysis of data for individuals reporting methamphetamine (MA) use admitted to publicly funded treatment substance use disorder (SUD) treatment through the LRE is provided in this section. The goal of this information is to provide a better understanding of the characteristics of individuals experiencing stimulant use disorders who receive publicly funded SUD treatment.

AGE OF INITIATION:

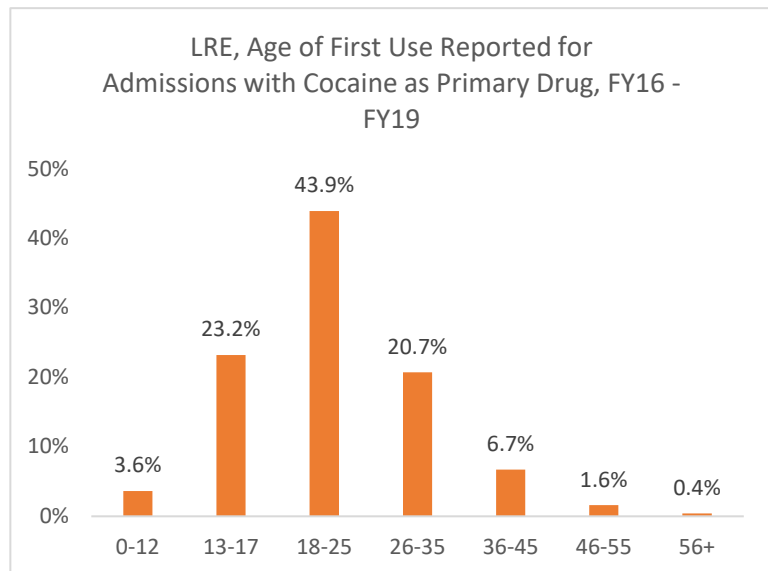
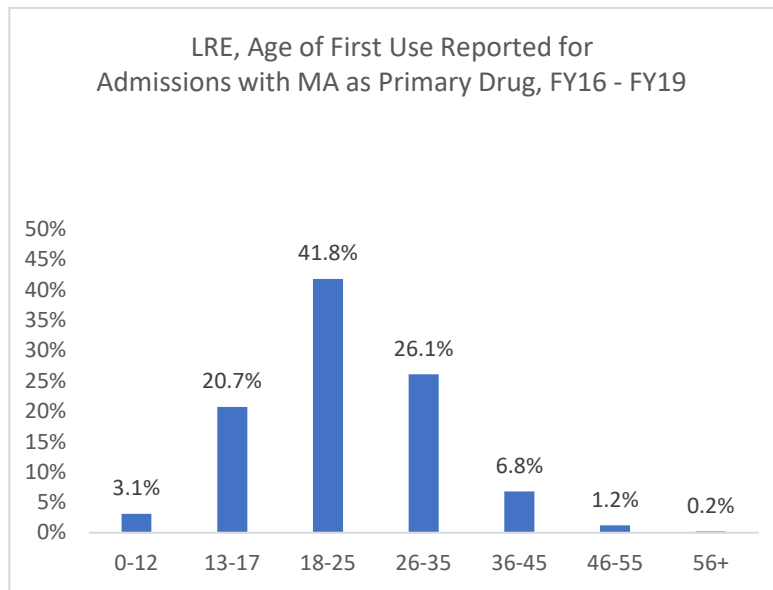
Among admissions with MA reported as primary drug the median age reported was 22, and the average age was 23.5 years of age. Cocaine had a very similar age of first use with a median age of 20.0, an average age of 22.9, and mode of 18.

Among admissions for individuals age 18 to 25 at admission who reported MA as their primary drug at admission:

- One-third (32.4%) reported use before the age of 18
- One-in-four (24.7%) reported first use at the age of 18 or 19.

Among admissions with cocaine as primary drug, the most frequently reported age of first use was between 18-25, followed by ages 13-17, and 26-35.

Cocaine had an average age of first use of 22.9, a median age of 20.0, and a mode of 18.

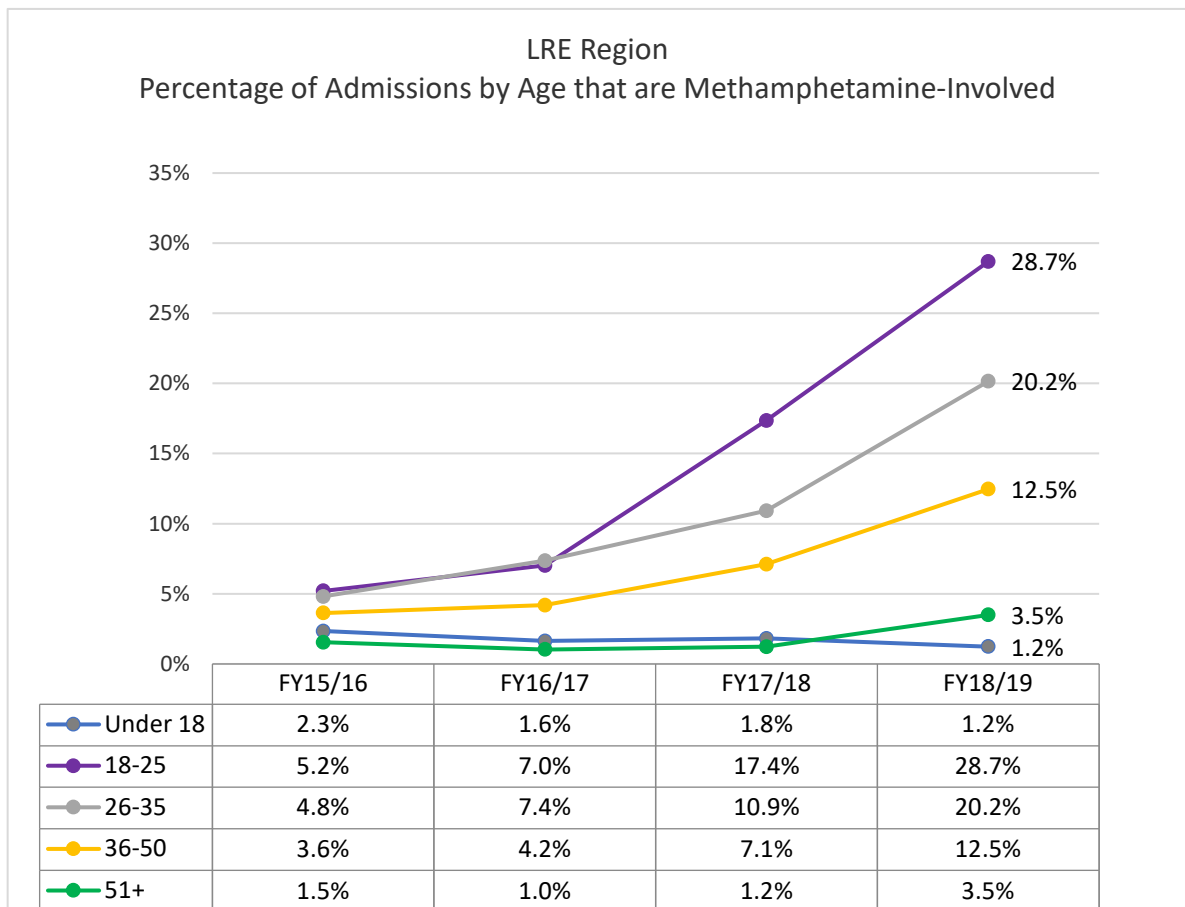


AGE AT ADMISSION:

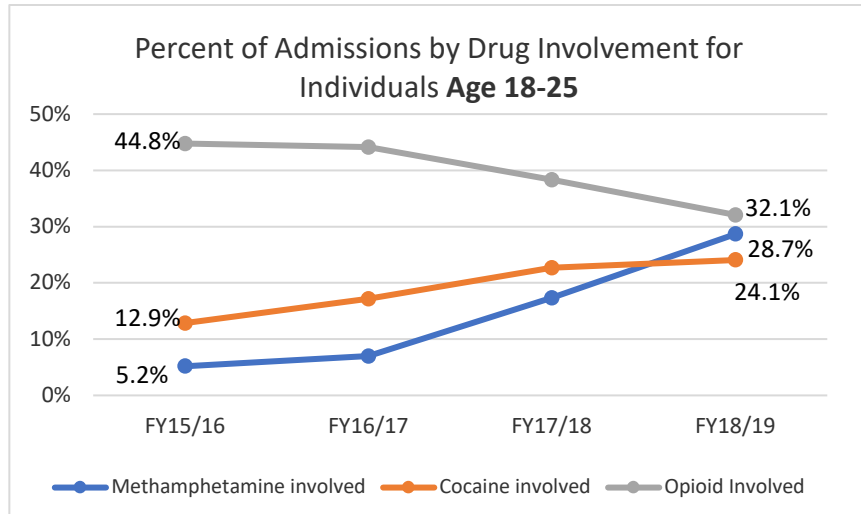
The proportion of admissions that are MA-involved have increased among adults between the ages of 18 and 50 with the greatest increase among individuals ages 18-25.

- 450% ↑ among admissions for those aged 18-25
- 366% ↑ among admissions for those aged 26-35
- 247% ↑ among admissions for those aged 36-50

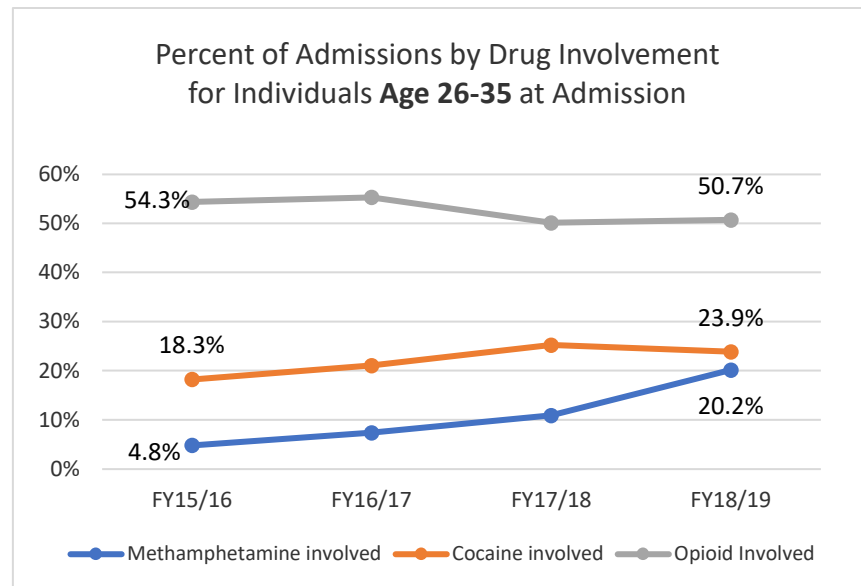
MA-involved admissions are extremely low and have remained stable for those under the age of 18 and over age 50. The average age at admission was 36.7 years old, the median age was 35, and the mode was 30.



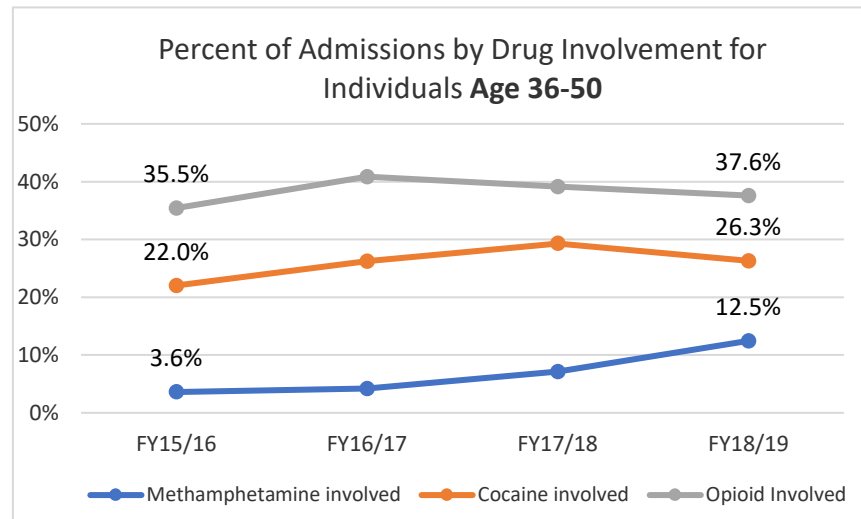
For persons age 18-25 at admission the percent of admissions involving MA and cocaine have risen steadily while opioid involved admissions have declined.



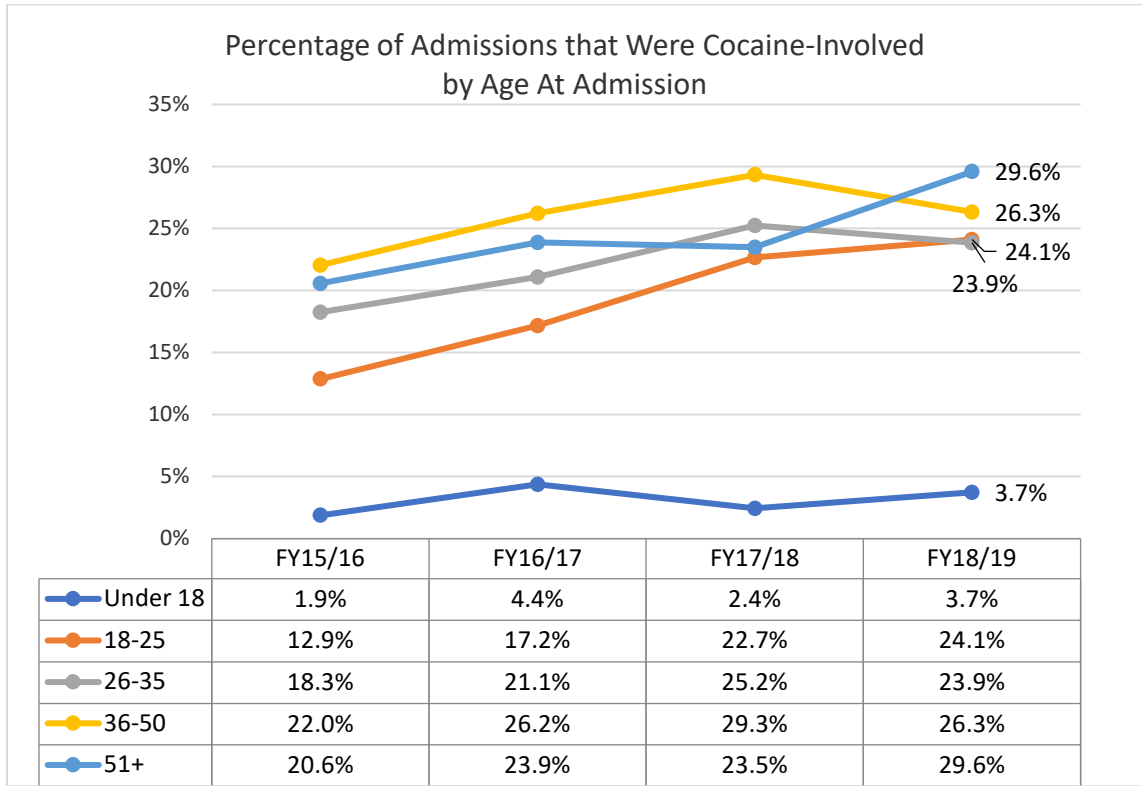
For persons age 26-35 at admission the percent of admissions involving MA and cocaine have risen for MA and slightly for cocaine, while opioid involved admissions are still more frequent but have declined slightly since FY17.



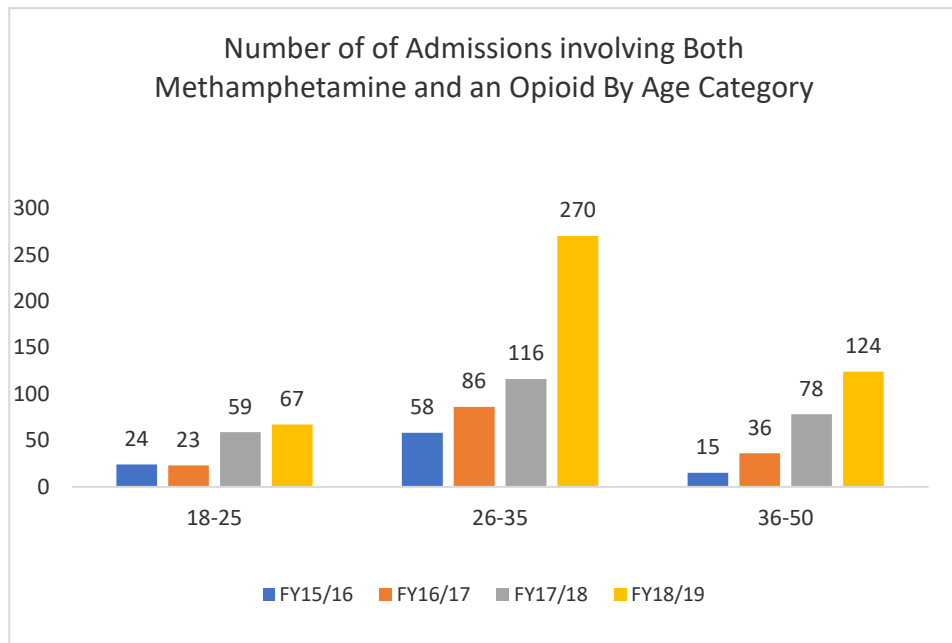
For persons age 36-50 at admission the percent of admissions involving MA and cocaine have risen while opioid involved admissions have declined since FY17.



Cocaine admissions have increased for each age category at relatively similar rates, except for those under the age of 18.



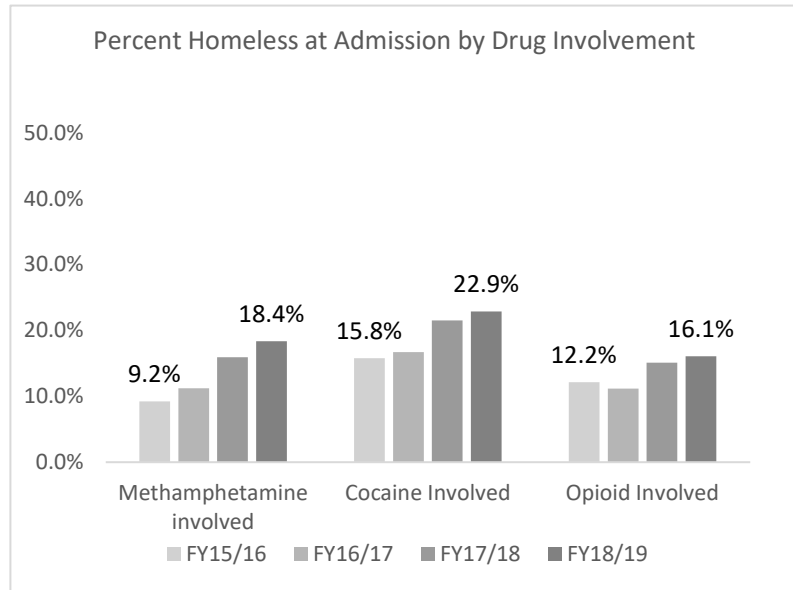
Admissions that involved both MA and an opioid have increased steadily for ages 18-50 with the highest number of admissions occurring for those age 26-35.



LIVING ARRANGEMENT: Between FY16 and FY19 almost one-in-five MA-involved admissions (18.4%) reported that the individual was homeless at the time of admission.

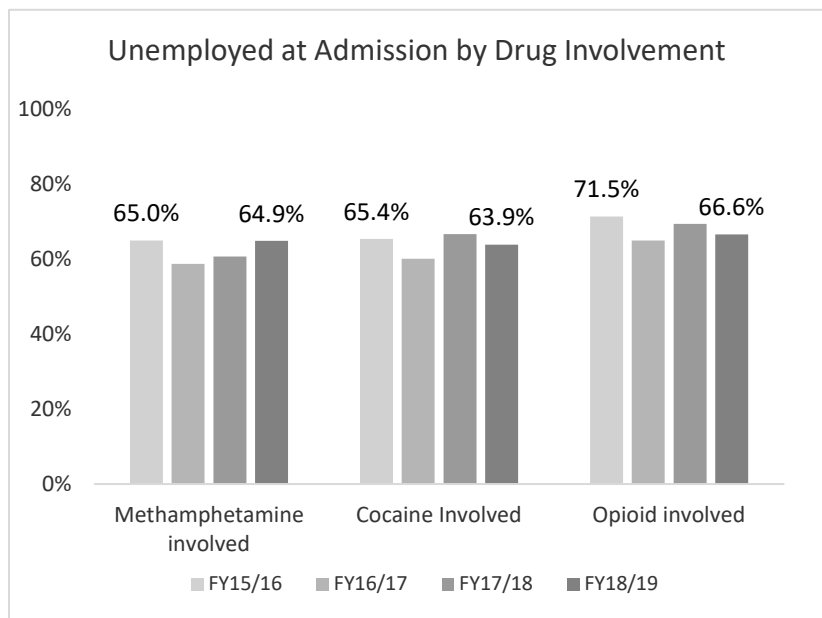
This rate was similar to those who did not report MA involvement. No discernable difference was noted when MA was reported as the primary drug of choice at admission compared to non-primary.

However, there has been an increase in admissions for individuals identified as 'homeless' in recent years for MA-involved admissions, as well as for cocaine and opioid involved admissions.



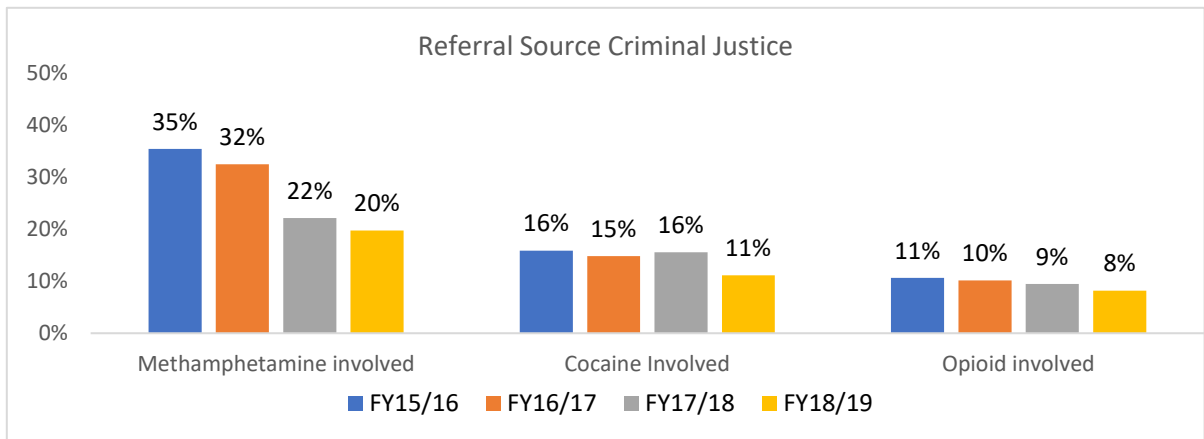
EMPLOYMENT: Between FY16 and FY19, almost two-thirds (64%) of admissions for SUD treatment report the individual is unemployed. Unemployed rates for admissions involving MA, cocaine, and opioids reflect a similar and relatively stable rates.

No discernable difference was noted when MA was reported as the primary drug of choice at admission compared to non-primary.



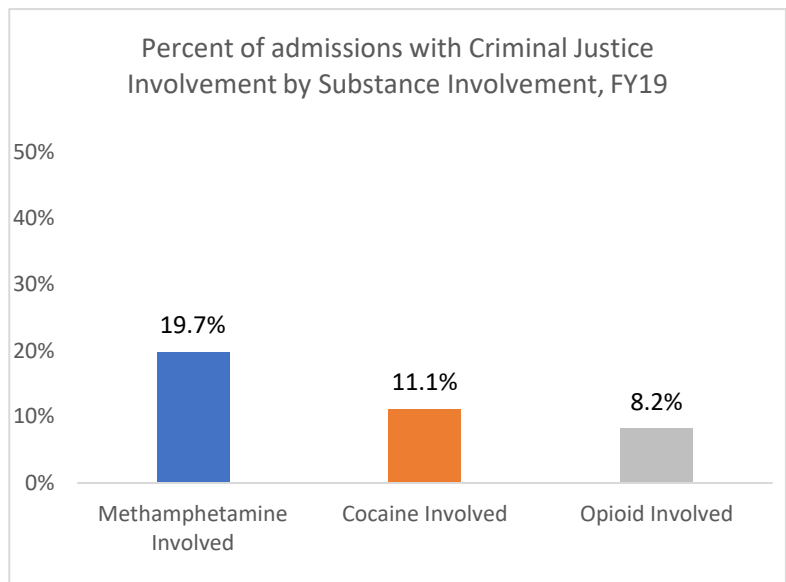
CRIMINAL JUSTICE INVOLVEMENT:

The percent of admissions referred by the criminal justice system has decreased in recent years for MA, cocaine, and opioid involved admissions. MA-involved admissions were more likely to report referral by the criminal justice system and criminal justice involvement than cocaine and opioid involved admissions, although the difference has lessened in recent years for both.



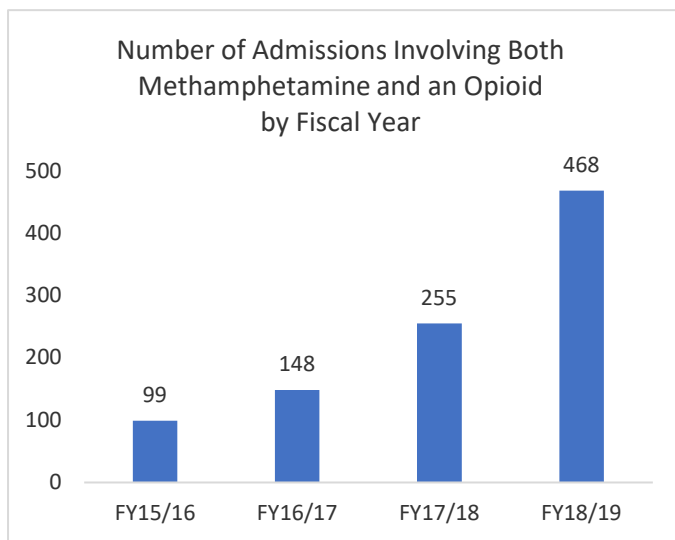
MA-involved admissions were more likely to report involvement in the criminal system at admission than those with no MA involved (20% vs 16% in FY19). The difference was greatest in FY16 and has been decreasing since FY16.

When compared to cocaine and opioid involved admissions MA was the most likely to have criminal justice involvement at admission.



OPIOID AND STIMULANT POLYSUBSTANCE USE:

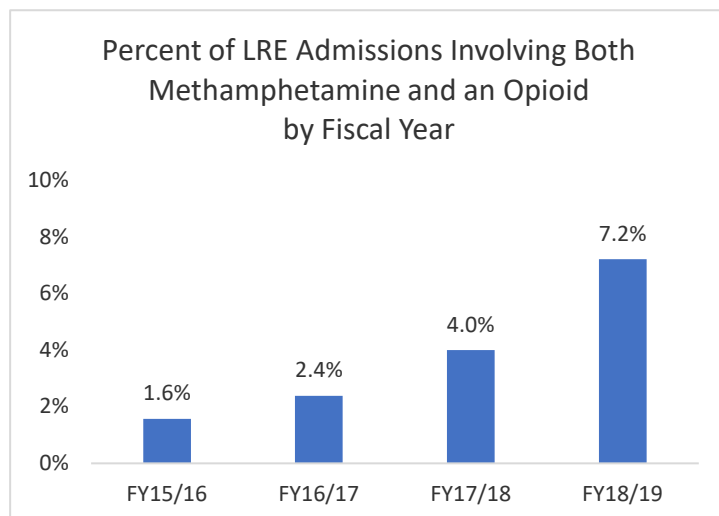
Admissions involving both MA and an opioid have increased continually and substantially with a 372% increase since FY16.



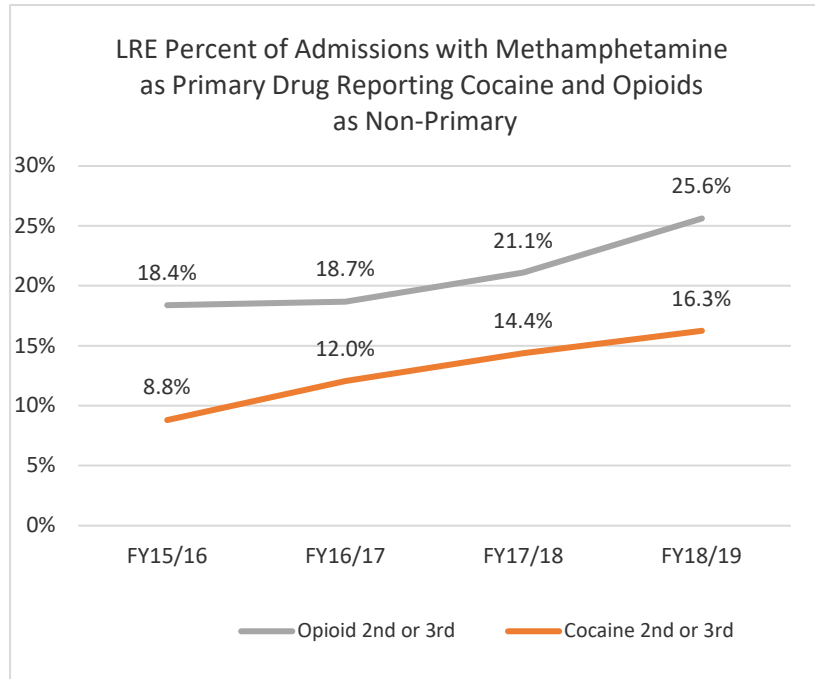
Note:

Although effective medications for opioid use disorder (OUD) exist, the lack of comparable treatments for stimulant addiction complicates the path to recovery for those using multiple substances.

As a proportion of overall admissions in FY19, these represented only 7.2% of admissions but have been increasing steadily.

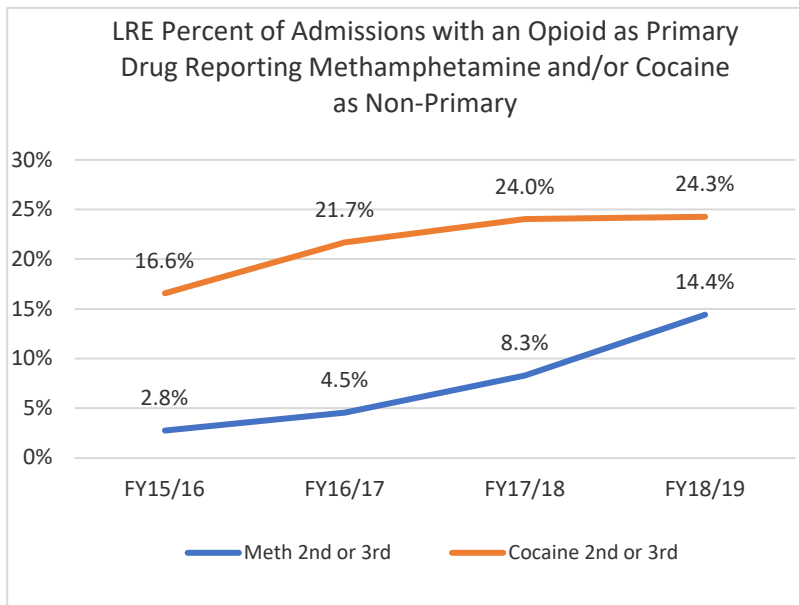


In FY19, 25.6% clients who reported MA as their primary drug reported an opioid as a non-primary drug of choice, and 16.3% reported cocaine as a non-primary drug of choice.



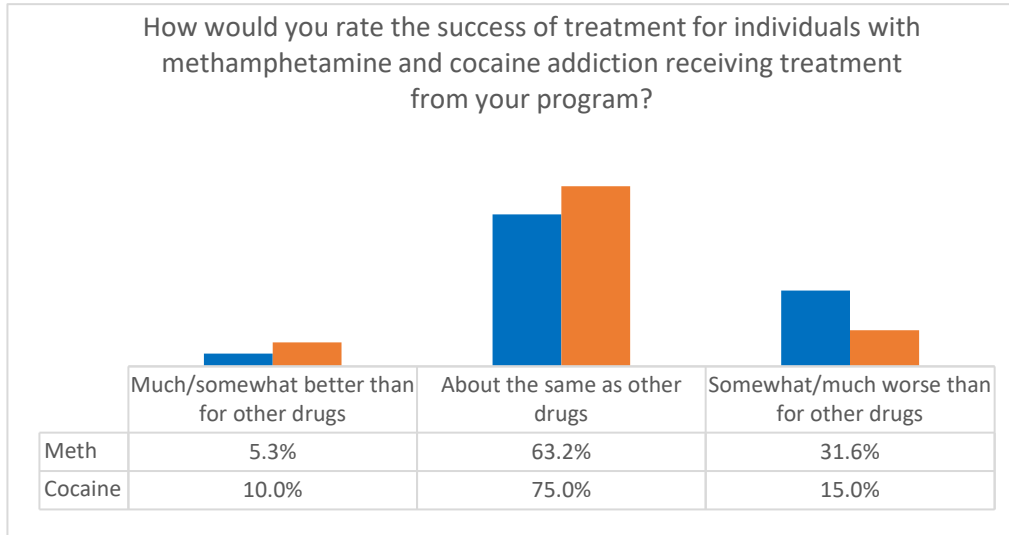
For admissions with an opioid as the primary drug:

- MA reported as a non-primary drug has increased steadily since FY16.
- In FY19 one-in-seven reported MA as a non-primary drug
- In FY19 one-in-four reported cocaine as a non-primary drug



TREATMENT OUTCOMES

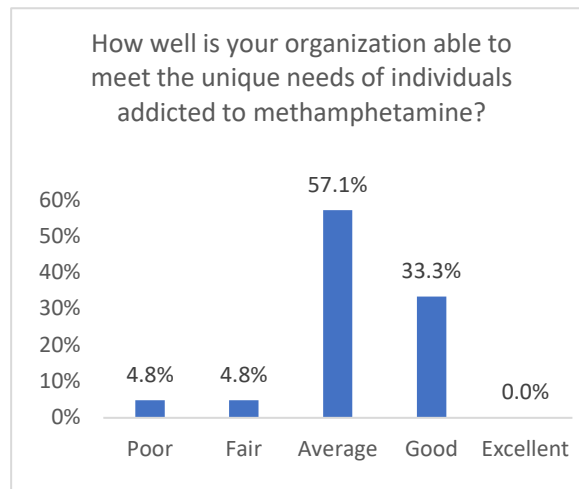
Almost one-third of clinicians reported that treatment outcomes for methamphetamine (MA)-involved treatment episodes were somewhat or much worse than for other drugs. Two-thirds reported that treatment outcomes are similar to other drugs (63%). For cocaine, clinicians were more likely to report that outcomes were similar to other drugs (75%) or better than for other substances (10%).



When asked whether their agency provides specialized treatment for individuals addicted to MA none of the clinicians reported that they do; one-third reported they were not sure.

When asked how well their organization is able to meet the unique needs of individuals addicted to MA, more than half (57%) reported ‘average’, one-third reported ‘good’, and only 10% selected ‘poor’ or ‘fair’.

One clinician noted that for MA they have noticed more clients repeating treatment.

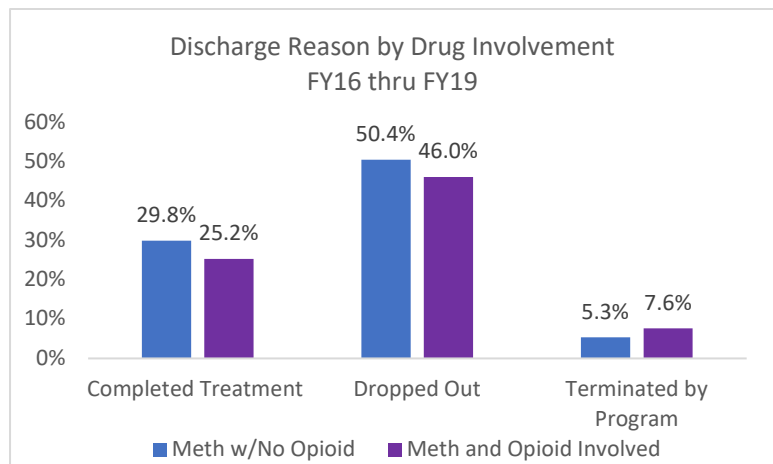
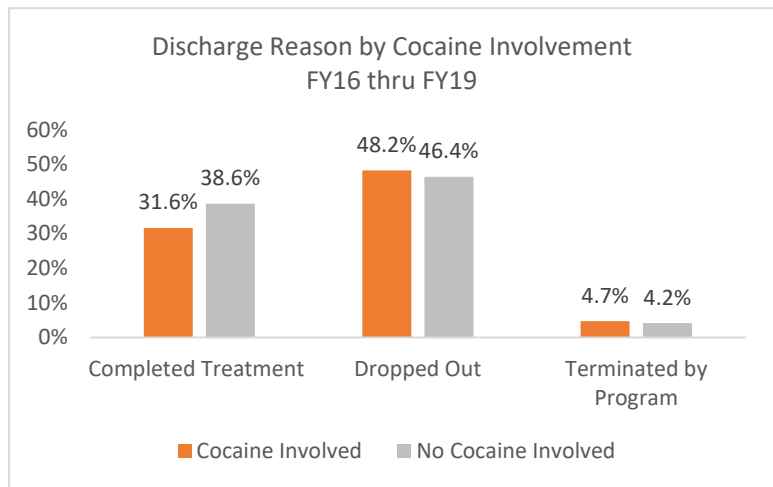
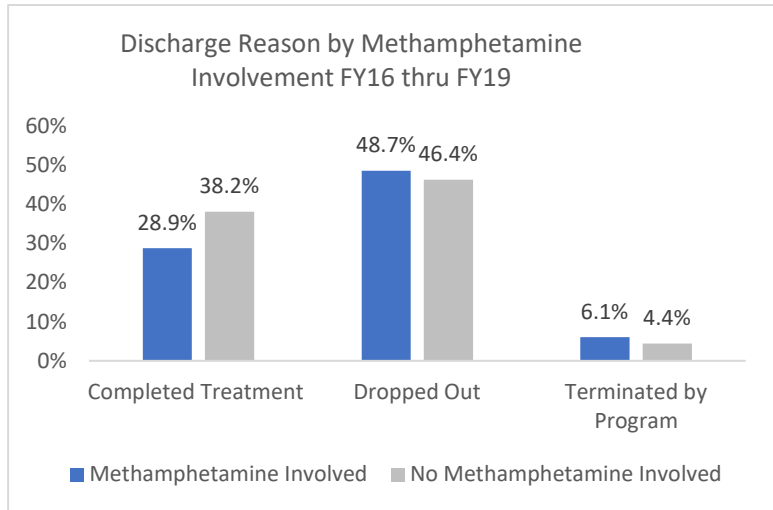


DISCHARGE REASON: Reason for discharge has been analyzed as a surrogate measure for treatment success. Discharges identified with the reason of ‘Transfer to another program/Completed Level of Care’ have been excluded from this analysis because they do not represent an end of a treatment episode, but rather a transition to a different level of care.

For this analysis, the discharge reason ‘Completed Treatment’ is being considered to indicate a positive treatment outcome while ‘Dropped Out’ and ‘Terminated by Facility’ are being considered to indicate a poor treatment outcome.

Findings:

- MA and cocaine-involved admissions had poorer treatment outcomes than admissions not involving these substances.
- Admissions involving both MA and an opioid were even less likely to complete treatment and more likely to be kicked out of the program. However, they were less likely to drop out than MA-involved episodes with no opioid involved.



TREATING METHAMPHETAMINE USE DISORDERS

CHALLENGES IDENTIFIED:

According to clinicians in the LRE region, clients entering treatment for methamphetamine (MA) present with numerous challenging issues that complicate treatment. Clinicians noted that these individuals often present with polysubstance use, a history of trauma, family of origin chaos, and underlying ADHD problems that were not addressed. In addition, they often present with financial struggles, housing and employment instability, criminal justice system involvement, and Department of Health and Human Services involvement for dependent children who have been placed in foster care. Additional unique complications such as co-morbid psychosis symptoms, sleep disturbance, increased paranoia, and impulsivity, as well as physical effects that negatively affect their self-esteem including skin, dental and physical health issues often occur.

Clinicians noted that a lack of ancillary services makes it difficult to address needs such as housing, food, and transportation. Clinicians also noted a “lack peer specialists with past MA addiction, education/knowledge on different treatment specialties or differences between substances and the lack of medication assisted treatment (MAT) options for stimulants, specifically cocaine and MA.”

“The lack of funding to implement the best evidence- based approach for treating stimulant addiction which is Contingency Management (CM) at this point in time.”

SUD Clinician in the LRE Region

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“If meth (or cocaine) is a drug of choice this complicates opioid addiction treatment so that they either drop out or are eventually discharged due to lack of progress. This then creates withdrawal which will lead to an increase in opioid use and greater potential for death.

MAT Provider in the LRE Region

”

Another clinician noted that “some get stable on methadone (for their opioid use disorder) and end up using MAs in order to off-set the feeling of the methadone.”

Clinicians in the region noted that MA dependent clients often do not want to stop using, are inconsistent, and the symptoms of withdrawal make it difficult to keep a client in treatment. One clinician stated, “increased paranoia as well as displaying

symptoms of schizophrenia, however when the drug is avoided for ...three weeks up to six weeks, these issues tend to subside.”

Clinicians also noted MA dependent individuals “often have higher perception of being able to 'control it' or be 'functional' due to the ability to be 'more productive' while high.” Another clinician noted, “The biggest thing is that people don’t think they have a problem more so than with opioids. This grandiosity sometimes makes the clinicians believe a patient is doing well with not being able to analyze that they’re actually not doing well.”

RECOMMENDED TREATMENT MODELS

Research indicates that the most effective treatments for MA addiction are behavioral therapies, such as cognitive-behavioral therapy, combined with motivational incentives, which uses vouchers or small cash rewards to encourage patients to remain drug-free.

Most commonly recommended treatment models include:

MATRIX MODEL OF COGNITIVE BEHAVIORAL THERAPY (CBT),

The Matrix Model incorporates principles of CBT in individual and group settings, family education, motivational interviewing, and behavioral therapy employing CBT principles. This manualized therapy has been proven more effective in reducing MA use during the 16-week the intervention than “treatment as usual”.^{vi}

In this model, “The Matrix Model provides a framework for engaging stimulant users in treatment and helping them achieve abstinence. Patients learn about issues critical to addiction and relapse, receive direction and support from a trained therapist, and become familiar with self-help programs. Patients are monitored for drug use through urine testing.”^{vii}

The therapist functions simultaneously as teacher and coach, fostering a positive, encouraging relationship with the patient and using that relationship to reinforce positive behavior change. The interaction between the therapist and the patient is authentic and direct but not confrontational or parental. Therapists are trained to conduct treatment



Note:

SAMHSA's Treatment Improvement Protocol No. 33 provides an overview of treatment considerations and guidance for treating stimulant use disorders. Methamphetamine specific considerations are noted throughout.

Available at:

<https://www.ncbi.nlm.nih.gov/books/NBK64329/>

sessions in a way that promotes the patient's self-esteem, dignity, and self-worth. A positive relationship between patient and therapist is critical to patient retention.

Treatment materials draw heavily on other tested treatment approaches and, thus, include elements of relapse prevention, family and group therapies, drug education, and self-help participation. Detailed treatment manuals contain worksheets for individual sessions; other components include family education groups, early recovery skills groups, relapse prevention groups, combined sessions, urine tests, 12-step programs, relapse analysis, and social support groups.

A number of studies have demonstrated that participants treated using the Matrix Model show statistically significant reductions in drug and alcohol use, improvements in psychological indicators, and reduced risky sexual behaviors associated with HIV transmission.^{viii}

Contingency Management:

Contingency management (CM) therapy for treatment of stimulant use disorders employs principles of reinforcement for demonstration of desired behaviors. The premise is that desired behaviors that replace or compete with drug use are followed by rewards to increase the frequency of these behaviors.

According to the National Institute on Drug Abuse (NIDA), research has demonstrated the effectiveness of treatment approaches using contingency management (CM) to enhance community-based treatment for substance use disorders. CM works by providing immediate and reliable reinforcement for remaining abstinent. This reinforcement helps to engage patients in treatment and promotes their abstinence which provides their brains a chance to heal. Studies have shown that incentive-based interventions are highly effective in increasing treatment retention and promoting abstinence from drugs.^{ix}

To implement CM a specific, objective target behavior must be determined (e.g. abstinence from stimulants) and the target behavior must be measured objectively and frequently (e.g. twice weekly urine tests). Immediate tangible, desired reinforcement must be provided when the targeted behavior occurs. The size of the reinforcement should increase for consistent behavior. This results in continuous abstinence during treatment which is a strong and consistent predictor of long-term abstinence.

Reinforcement is withheld when the target behavior does not occur (e.g. failed drug test) and the size of the reinforcement should be reset to the initial size for the next occurrence of the target behavior.

Contingency management typically uses either a voucher-based reinforcement or a prize incentive approach.

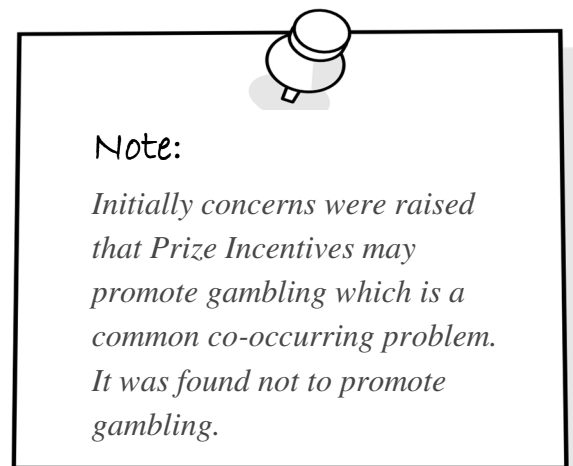
Voucher-Based Reinforcement (VBR), the patient receives a voucher for every drug-free urine sample provided. The voucher has monetary value that can be exchanged for food items, movie passes, or other goods or services that are consistent with a drug-free lifestyle. The voucher values are low at first and increase as the number of consecutive drug-free urine samples increases. A positive urine samples resets the value of the vouchers to the initial low value.

Prize Incentives CM applies similar principles as VBR but uses chances to win cash prizes instead of vouchers resulting in a lower cost to implement/ Over the course of the program (at least 3 months), participants supplying drug-negative drug tests draw from a bowl for the chance to win a prize worth between \$1 and \$100.

The number of draws increases with consecutive negative drug tests but resets to one with any drug-positive sample or unexcused absence.

The prize bowl contains 500 prize slips consisting of 250 “Good Job!”, 209 “Small” (\$1), 40 “Large” (\$20), and 1 “Jumbo” (\$100). Draw starts at 1 for the 1st negative sample and escalates (to a cap of ~8) with consistent abstinence. When abstinence is not verified, no draws are earned, and draws reset to 1 for the next negative sample. The average cost per patient for a 12-week period is ~\$200.

Research indicates that contingency management may be effective in treating MA use disorder. Research conducted by NIDA, found that individuals receiving contingency management in addition to usual treatment, submitted significantly more negative drug tests and were abstinent for a longer period.^x One study applying the Prize Incentive CM for a 12-week period with cocaine and MA users in outpatient treatment found that CM improved retention and abstinence.^{xi}



Note:

Initially concerns were raised that Prize Incentives may promote gambling which is a common co-occurring problem. It was found not to promote gambling.

ADDITIONAL TREATMENT CONSIDERATIONS

Medication Assisted Treatment: There are currently no government-approved medications to treat MA addiction. However, there are medications which may help to manage some of the symptoms that occur during the withdrawal process. Additional information about these medications provided in the following section.

Initial Rest Period before therapy:

Clinicians in the LRE region noted that the biggest challenge in **providing treatment for clients with methamphetamine (MA)-dependent individuals** is the difficulty stabilizing and engaging a client in treatment initially.

The initial period of stimulant abstinence is characterized by symptoms of depression, difficulty concentrating, poor memory, fatigue, craving, and paranoia.^{xii}

Depressive symptoms can be significant and associated with suicidal thoughts. Relapse often occurs due to feelings of depression, apathy, and hopelessness. During this period extreme cravings occur but decline rapidly. Psychotic symptoms, such as paranoia, hallucinations, and delusions, also occur and can be the most dangerous withdrawal symptom.^{xiii}

“

The greatest challenge is ...to keep a client in treatment who is coming down off of MA. The symptoms that occur are increased agitation, increased anxiety, increased need for rest/sleep, inability to sit/stay still for very long, etc. All of these symptoms have been difficult to manage at times depending on the client.

Clinician in the LRE Region

”

Withdrawal symptoms typically begin within 24 hours of abstinence and peak within the first 7-10 days. The average duration of symptoms lasts 14-20 days and cravings last at least 5 weeks.^{xiv, xv}

Research indicates that during the acute withdrawal phase (approx. 7-10 days), it may be best to let the individual sleep if they want to sleep without engaging in therapy. Research documents that during this acute phase, there is increased sleeping and eating, depression-related symptoms and, less severely, anxiety and craving-related symptoms. Oversleeping was marked during the acute phase and despite a reduction in sleep quality, was not followed by a period of insomnia during the subacute phase.^{xvi} Patients are tired for 10-15 days of withdrawal, do not make them go to therapy sessions during that time if they want to rest. If they are incarcerated, this rest period can be done in jail.^{xvii}

Medications to Manage Withdrawal Symptoms:

The National Institute of Health notes that the severity of MA withdrawal symptomatology is likely to influence the ability of methamphetamine-dependent individuals to maintain abstinence. Therefore, reducing withdrawal symptoms may assist clients in remaining abstinent.^{xviii}

There are no medications approved by the FDA specifically designed to be used in the detox withdrawal process from MA. However, there are medications that can help to manage some of the symptoms that occur during withdrawal. However, research supporting the efficacy of medications to ease withdrawal symptoms is limited.^{xix}

Physicians are free to use any medications to address specific symptoms that occur in individuals during withdrawal. For instance, for individuals who develop psychotic-type behaviors, such as paranoia, physicians are free to administer antipsychotic medications if the symptoms are judged to be severe enough to require direct treatment. However, these drugs are not reimbursable by Medicaid as part of a medication assisted treatment method.^{xx}

Because most antidepressants do not begin to exert their effects until 2-4 weeks after initial administration, they may not be an effective means of coping with depression during the withdrawal process which typically resolves within 14 days.

Medications that may help manage withdrawal symptoms include:

- *Wellbutrin (bupropion)**: This drug is an antidepressant that has a good body of research indicating that it is useful in reducing the symptoms of withdrawal from crystal meth as it appears to reduce cravings. More appropriate for light to moderate MA use disorders.
- *Provigil (modafinil)**: This medication has mild stimulant properties that can assist in reducing issues of with disruptive sleep patterns, increasing energy, and enhancing concentration.
- *Selective serotonin reuptake inhibitors**: Paxil (paroxetine) is a selective serotonin reuptake inhibitor that has been shown in some studies to relieve cravings; however, research on the efficiency is mixed.
- *Remeron (mirtazapine)**: Remeron is an atypical antidepressant that has its primary mechanism of action on both serotonin and norepinephrine. There is evidence that its use can help to prevent relapse during the withdrawal process.

Urinalysis Screens: Stimulant-dependent clients in outpatient programs need structure that provides support for engaging in healthy behaviors. Researchers assert that urine testing is part of that structure. Drug testing should not be presented or used primarily as an investigative tool or to test the honesty of clients but rather as a means of support for initiating and maintaining sobriety.^{xiv}

Predicting and Preventing Relapse:

It important to engage MA users in abstinence-promoting resources and enhanced continuing care post-treatment because the majority of relapses occur within 6-12 months following treatment. Research indicates that the highest rates of relapse occurs early in the post-treatment period, within six months. Researchers argue that this predominant early relapse emphasizes the need for continuing care and strategies for connecting MA users to abstinence-promoting resources immediately following SUD treatment.

While the risk of relapse decreased with increasing duration of continuing abstinence, some risk of relapse remained years after treatment discharge, indicating a need for continuing availability of resources to the long-time abstinent MA user.

Studies found certain factors that were predictive of shorter time to relapse following treatment. These risk factors could be identified at admission to allow for targeted intervention planning. Risk factors predictive of shorter time to relapse included parental drug use and ever having sold MA. However, the protective factors of longer treatment episodes, and continuing treatment and/or self-help can counteract these vulnerabilities. Participation in self-help and/or additional SUD treatment during the abstinence period had the strongest effect size on duration of abstinence.^{xxi}

Exercise may improve outcomes: Research has shown that exercise can have a significant effect on reducing depression and anxiety among individuals in treatment for MA use disorder.^{xxii, xxiii} In addition, exercise has been shown to improve the MA use related brain changes known as striatal dopaminergic deficits that have been linked to poor treatment outcomes.^{xxiv}

Sexual Issues: Stimulant-dependent clients can have tremendous concerns and anxieties about the compulsive sexual behaviors they engage in while using stimulants. Client fears should be addressed in treatment, such as the fear that sex without drugs will be boring or impossible.^{xiv}

In addition, risky sexual behavior is common and harm reduction efforts should be incorporated such as condom promotion programs, safer sex education and safer sex negotiation for both male and female MA users, and HIV/AIDS testing can reduce these risks.^{xxv}

PROVIDER SUPPORT NEEDED

When clinicians were asked what **would most help improve treatment outcomes** for clients who use methamphetamine (MA), their responses indicate the need for additional and flexible funding to allow for more intensive treatment services designed to specifically meet the needs of individuals with a stimulant use disorder.

Additional training, enhanced care coordination, and ability to connect clients with community resources were noted as essential. One clinician noted that, “Getting the justice system informed on SUD issues has been very helpful in assisting clients in getting the treatment they need.”

The ability to provide **more intensive treatment services** were noted as the need for more residential treatment availability, smaller caseload sizes to allow for more intensive services, increased groups, more frequent services for each client, after-care, and more support groups available. Two specific services were noted by numerous clinicians:

- More recovery coaches who could support the individual for at least 6 months, to support their recovery and increase frequency of client contact. It was noted that these recovery coaches must to be well-informed about available community resources to provide clients assistance accessing services to address their numerous challenges.
- Programming specific to stimulant use disorder. Clinicians specifically noted the need for contingency management programming, which provides positive rewards for behavior, is currently identified as the most effective model for provision of treatment for MA.
- Clinicians also noted that MAT programming for MA addiction would be beneficial, and that MAT providers are opioid centered, and “although some have been successful with this treatment for MA use, it’s not specific to MA use.”

Clinicians noted that **funding is key** to addressing these issues and flexible funding is essential. Of specific concern is the ability to implement contingency management.

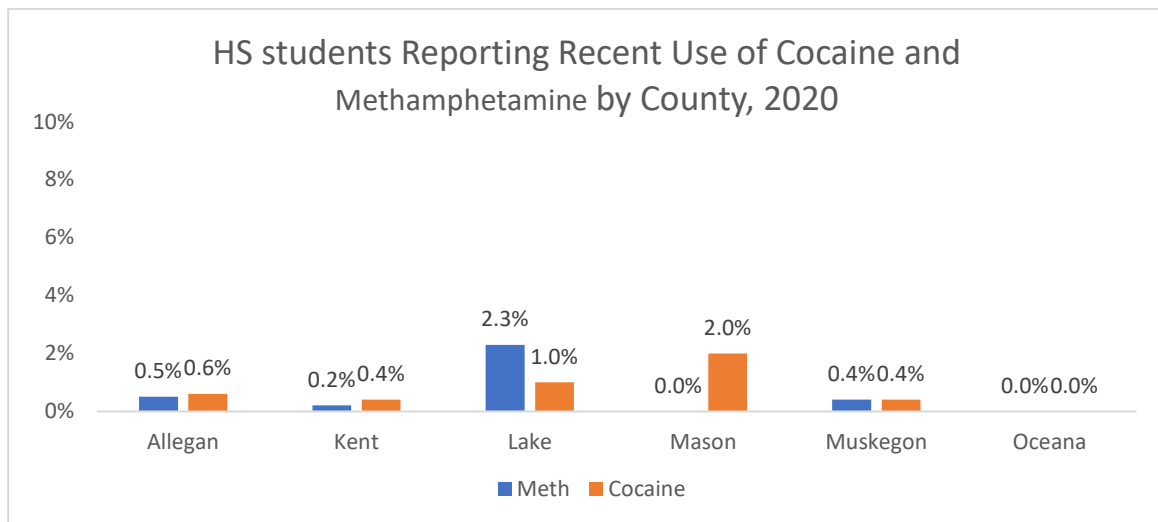
Clinicians also noted the need for more **training and educational materials**. One clinician noted the need for “more training in MA abuse, what it does to the brain, and the assistance people need with basic scheduling organization getting places remember and appointments nutrition”

YOUTH USE AND ATTITUDES

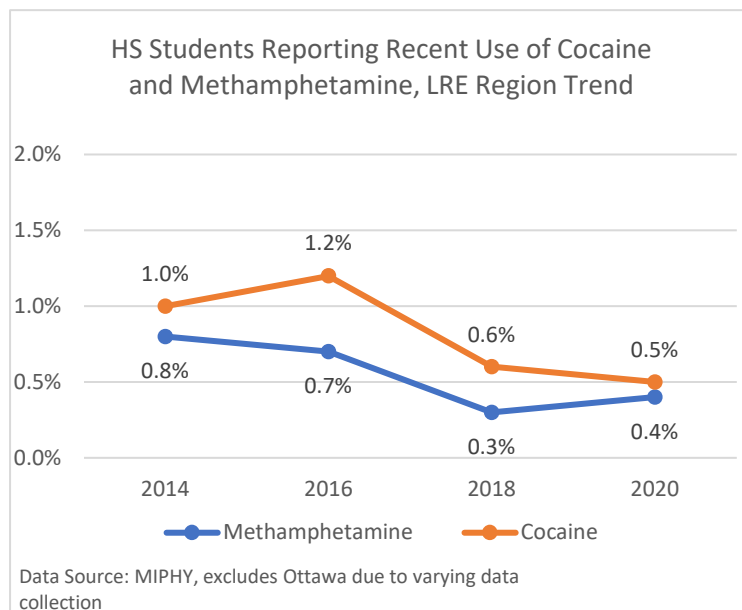
STIMULANT USE

The Michigan Profile for Healthy Youth (MIPHY) survey conducted by the Michigan Department of Education provides information on recent (past 30 days) methamphetamine (MA) and cocaine use for students in 9th and 11th grades.

In 2020 less than 1% of high school (HS) students reported recent use of cocaine or MA. Across the region, the highest rates were reported for Lake and Mason counties at for both MA and cocaine, and the lowest in Oceana with no students reporting recent use of either substance. In Ottawa county a different survey is conducted which captures lifetime rather than recent use; in 2019 1.4% of students in grades 8, 10 and 12 reported having ever used MA, and 2.5% reported having ever used cocaine.



Regional rates have historically been low for these substances in the LRE region with recent use of MA reported by less than 1% of HS students each year since 2014. Rates of recent cocaine use were the highest in 2016 with a rate of 1.2% and declining in subsequent years.



ATTITUDES AND KNOWLEDGE

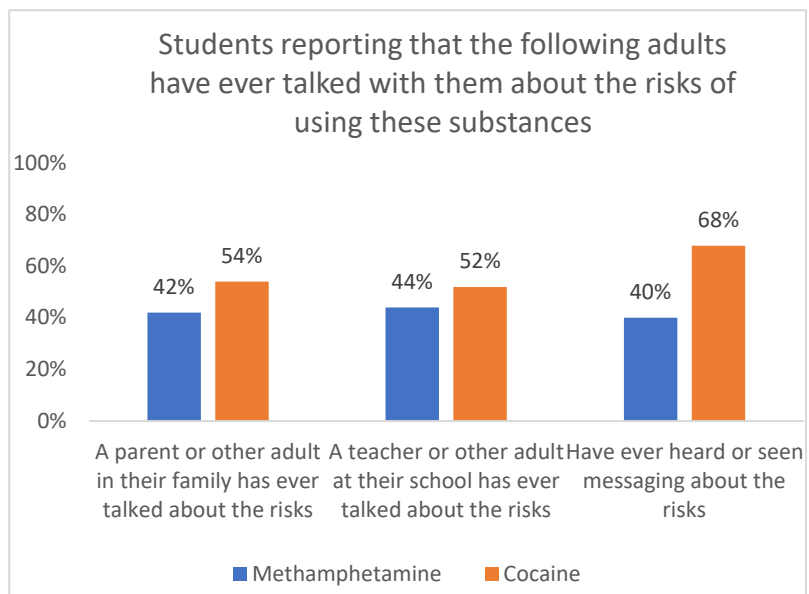
To better understand current youth awareness and attitudes toward stimulants, prevention providers throughout the region were asked to have youth participate in a brief online survey. This resulted in a very small sample of HS students (N=25).

The sample size for this questionnaire is extremely small and results should not be generalized to the broad population. However, results are included in this report to provide some insight into the attitudes of teens regarding stimulants as this data is not available from any other source. Among respondents:

Methamphetamine	Cocaine
One-in-three (32%) reported it would be 'sort of' or 'very easy' to get	One-third (32%) reported it would be 'sort of' or 'very easy' to get cocaine.
One-in-three reported an inaccurately high perception of peer use believing that 20%+ have used	One-fourth (28%) reported an inaccurately high perception of peer use with the believe that 20% used cocaine
Only 4% reported MA use is low-risk	One-in-ten (12%) reported use is low-risk
Less than half reported someone in their family (42%) or an adult at school (44%) had ever talked with them about the risks	About half reported someone in their family (54%) or an adult in their school (52%) had ever talked with them about risks
Two-in-five (40%) report they have heard or seen messaging about the risks of MA	Two-thirds (68%) have heard or seen messaging about the risks

Teens were less likely to report having received information about the risks of MA use than cocaine.

In addition, teens were less likely to report having received information on the risks of MA from various sources.



Primary Prevention Messaging and Resources for Youth

The following section provides information about existing initiatives and resources to support methamphetamine (MA) specific prevention efforts which are very limited.

SAMHSA Tips for Teens: This factsheet for teens provides facts about methamphetamine.

It describes short- and long-term effects and lists signs of methamphetamine use. The factsheet helps to dispel common myths about methamphetamine.

Available for download: <https://store.samhsa.gov/product/Tips-for-Teens-The-Truth-About-Methamphetamine/PEP18-03>

Montana Meth Project: Founded in 2005 by the Thomas and Stacey Siebel Foundation, in response to the growing Meth epidemic in the U.S. The Meth Project is a large-scale prevention program aimed at reducing Meth use through public service messaging, public policy, and community outreach. Central to the program is a research-based marketing campaign, community action programs, and an in-school lesson all designed to communicate the risks of Meth use. Message campaign tagline is ‘Not even once’.

Currently 6 states are implementing this project. Colorado has done extensive research and had positive results. The project has also been highlighted as effective by the White House, as well as the National Institute of Health which published a report in support of this project in 2010.^{xxvi}

The Montana Meth Project includes components designed to:

- Increase the perceived risk, and decrease the perceived benefit of trying meth, so that perceptions reflect accurate information about the drug.
- Increase Parent-Child and Peer Dialogue to reinforces the anti-meth message.
- Stigmatize use, making meth use socially unacceptable, just as cigarette smoking has become socially unacceptable in recent decades.
- Provide media literacy training for teens.
- Support youth to engage in difficult conversations and support their peers in avoiding drug use.
- Promoting the warning signs of MA use and how to get help for yourself or someone else.

The MethProject.org provides the following resources at no charge:

- Lesson for Teachers to implement: On-line interactive lesson for teachers that focuses on the risks of meth and how teens can prevent use among their peers. A longer 3-lesson curricula is available with additional activities. A lesson plan outline and teacher’s guide are available online.

- Marketing Campaign – Hard-hitting (borderline scare tactics) ads that direct to MethProject.org as the definitive source for information about MA for teens and young adults. Focus is to communicate the risks of MA use. Messaging is heavily focused on the impacts once addicted including physical changes and impact on loved ones.
- Documentaries and testimonials: Numerous video testimonials and documentaries are available that highlight the impact of methamphetamine. Of note, is the 'Brain & Behavior'" documentary on the effects of methamphetamine on the brain that explores the biological basis of addiction and the latest MA research.

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