



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
LANSING

SHELLY EDGERTON
DIRECTOR

PRESCRIPTION DRUG AND OPIOID ABUSE COMMISSION APRIL 12, 2018 MEETING

APPROVED MINUTES

In accordance with the Open Meetings Act, 1976 PA 267, as amended, the Prescription Drug and Opioid Abuse Commission met on April 12, 2018, at the Ottawa Building, Conference Room 3, 611 West Ottawa Street, Lansing, Michigan 48933.

CALL TO ORDER

Judge Linda Davis, Chairperson, called the meeting to order at 2:03 p.m.

ROLL CALL

Members Present: Judge Linda Davis, Chairperson, Ex-Officio for LARA
Stephen Bell
Vincent Benivegna
Rebecca Cunningham (Arrived at 2:24 p.m.)
Richard Dettloff (teleconference)
Lisa Gigliotti
Timothy Hurtt
Paula Nelson
Michael Paletta
Gretchen Schumacher
Judge Patrick Shannon (teleconference)
Larry Wagenknecht
Adam Wilson

Members Absent: Paul Lauria
Stephen Lazar
Melissa Owings
Roy Soto
Laurie Wesolowicz

Ex-Officio Members: Michelle Brya, Assistant Attorney General
Dr. Debra Pinals, Department of Health and Human Services
Col. W. Thomas Sands, Michigan State Police

Staff: Kim Gaedeke, Acting Deputy Director, LARA
Cheryl Pezon, Acting Bureau Director, BPL

Kimmy Catlin, Board Support, Boards and Committees Section
Andria Ditschman, Analyst, Boards and Committees Section
Andrew Hudson, Manager, Drug Monitoring Section
Weston MacIntosh, Analyst, Boards and Committees Section

APPROVAL OF AGENDA

MOTION by Wagenknecht, seconded by Gigliotti, to approve the agenda as presented.

A voice vote followed.

MOTION PREVAILED

APPROVAL OF MINUTES

MOTION by Gigliotti, seconded by Benivegna, to approve the minutes from February 8, 2018 as written.

A voice vote was followed.

MOTION PREVAILED

DHHS Update

Dr. Pinals introduced Angela Minicuci and GERALYN Lasher to the Commission.

Angela Minicuci and GERALYN Lasher presented a PowerPoint entitled "MDHHS Prescription Drug and Opioid Abuse Media Campaign Overview" to the Commission. (Please see addendum #1).

Angela Minicuci and GERALYN Lasher gave the Commission a handout entitled "Prescription Painkiller Pre-Campaign Awareness Survey". (Please see addendum #2).

Karen Yoder gave an update on the educational curriculum additions and revisions and asked for suggestions to be sent to Andria Ditschman at BPL. The Policy & Outcomes Subcommittee will review the proposed educational curriculum additions and propose additional suggestions for the Commission to vote on at the May meeting.

Discussion was held.

MAPS Analytics Update

Kim Gaedeke and Andrew Hudson presented a PowerPoint entitled "Statewide Opioid Assessment: Michigan". (Please see addendum #3).

Discussion was held.

Acute Care Recommendations Discussion

Rebecca Cunningham presented three documents regarding acute care recommendations to the Commission. (Please see addendum #4).

Discussion was held.

MOTION by Bell, seconded by Wagenknecht, to approve the recommendations.

A roll call vote followed:

Yeas – Bell, Benivegna, Cunningham, Dettloff,
Gigliotti, Hurtt, Nelson, Paletta, Schumacher,
Shannon, Wagenknecht, Wilson
Nays – None

MOTION PREVAILED

Legislative Update

Bryan Modelski, Legislative Analyst for the Bureau of Professional Licensing, discussed the recently introduced bills that address opioid abuse.

Office of Drug Policy Discussion

Shannon advised that a report will be presented at the next regularly scheduled Commission meeting, and that the Policy and Outcomes Subcommittee will provide the Commission with a recommendation.

OLD BUSINESS

None

SUBCOMMITTEE REPORTS

Treatment

The Commission reviewed the subcommittee report.

Regulation and Enforcement

None

Policy and Outcomes

The Commission reviewed the subcommittee report.

Prevention

The Commission reviewed the subcommittee report.

Benivegna explained that the Subcommittee has discussed and completed all of the jobs it was tasked with and advised that members are working on coming up with new ideas.

Davis advised that she worked with the Governor's Office and Elizabeth Gorz to outline the action items of the Commission to ensure that each item is completed before the end of the year.

Opioids and Other Controlled Substances Awareness Training

MOTION by Gigliotti, seconded by Bell, to recommend that individuals who are licensed to prescribe or dispense controlled substances, delegate nurses, and individuals seeking a controlled substance license complete a one-time training on opioids and controlled substances awareness.

A roll call vote followed:

Yeas – Bell, Benivegna, Cunningham, Dettloff,
Gigliotti, Hurtt, Nelson, Paletta, Schumacher,
Shannon, Wagenknecht, Wilson

Nays – None

MOTION PREVAILED

Prevention Subcommittee Motion

MOTION by Bell, seconded by Benivegna, to approve a letter to the Michigan Pharmacists Association, requesting that they encourage their members to use their best efforts to take back unused opioids, including increasing the number of drop-off bins.

A roll call vote followed:

Yeas – Bell, Benivegna, Cunningham, Dettloff,
Gigliotti, Hurtt, Nelson, Paletta, Schumacher,
Shannon, Wagenknecht, Wilson

Nays – None

MOTION PREVAILED

CHAIR REPORT

Davis advised that despite the numerous invitations to the forums there has not been attendance by any members of the Legislature.

DEPARTMENT UPDATE

None

PUBLIC COMMENT

None

ANNOUNCEMENTS

The next regularly scheduled meeting will be held May 24, 2018 at 2:00 p.m. in the Ottawa Building, 611 W. Ottawa Street, Conference Room 3, Upper Level Conference Center, Lansing, Michigan.

ADJOURNMENT

MOTION by Bell, seconded by Gigliotti, to adjourn the meeting at 3:53 p.m.

A voice vote followed.

MOTION PREVAILED

Minutes approved by the Commission on: May 24, 2018.

Prepared by:
Kimmy Catlin, Board Support
Bureau of Professional Licensing

April 18, 2018

MDHHS Prescription Drug and Opioid Abuse Media Campaign Overview

April 11, 2018

BROGAN & PARTNERS



2017 Campaign Overview

Overarching campaign objective:

- Decrease the number of opioid-related deaths in Michigan

Marketing communications objectives:

- Primary
 - Increase awareness of the dangers of opioids and educate the public about proper storage and disposal of prescription drugs.
 - Drive people to michigan.gov/stopoverdoses.
- Secondary
 - Increase awareness among prescribers of the dangers of prescription drugs.
 - Encourage prescribers to register for the Michigan Automated Prescription System (MAPS).

Target:

- Primary: A25-44 in Michigan who are at risk for abusing opioids. These are people who have been prescribed opioids by their physicians for pain management, or those who have not been prescribed, but have access to opioids. All ethnicities and income levels.
- Secondary: Prescribers of opioids (most commonly, family doctors and internists who treat patients for chronic pain).

Flight Dates: March – November 2017

Target Area: Statewide, including the upper peninsula and northern lower peninsula with focus on counties with high rates of opioid-involved deaths: Calhoun, Monroe, Wayne, Muskegon, Ingham, Livingston, Washtenaw, Ottawa, Macomb, Kent, Genesee and Oakland

Budget: \$540,000.00







Campaign Overview

The number of opioid overdose deaths in Michigan have been on the rise over the past 16 years. Governor Rick Snyder created the Michigan Prescription Drug and Opioid Abuse Commission in June 2016, to help reduce the opioid epidemic in Michigan and ensure the health and safety of Michigan residents.

OPIOID ADDICTION IS A GROWING PROBLEM.

In Michigan alone, an average of five people die from opioid overdose every day. Help us change the numbers and stop this deadly epidemic.



<p>All Drug Deaths</p> <p>Total number of overdose deaths in Michigan involving any drug.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>2011</th> <th>2016</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1,359</td> <td style="text-align: center;">2,376</td> </tr> </tbody> </table>	2011	2016	1,359	2,376	<p>Opioid Prescriptions</p> <p>Total number of opioid prescriptions written by any licensed prescriber in Michigan.*</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>2011</th> <th>2016</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10,441,714</td> <td style="text-align: center;">11,028,495</td> </tr> </tbody> </table>	2011	2016	10,441,714	11,028,495	<p>NAS Cases</p> <p>Neonatal abstinence syndrome (NAS) is a group of conditions associated with drug withdrawal in newborns after being exposed in utero.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>2011</th> <th>2016</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">630</td> <td style="text-align: center;">927*</td> </tr> </tbody> </table>	2011	2016	630	927*
2011	2016													
1,359	2,376													
2011	2016													
10,441,714	11,028,495													
2011	2016													
630	927*													
<p>All Opioid Deaths</p> <p>Number of deaths that involved at least one type of opioid (including prescription drugs, heroin, fentanyl or any other opioid), or one or more opioids combined with other drugs.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>2011</th> <th>2016</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">622</td> <td style="text-align: center;">1,733</td> </tr> </tbody> </table>	2011	2016	622	1,733	<p>People in SUD Treatment for Opioids or Heroin</p> <p>Total number of people receiving publicly funded drug treatment services in Michigan.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>2011</th> <th>2016</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">22,234</td> <td style="text-align: center;">32,473</td> </tr> </tbody> </table>	2011	2016	22,234	32,473	  				
2011	2016													
622	1,733													
2011	2016													
22,234	32,473													

*2016 Data.

michigan.gov/stopoverdoses

Campaign Overview

According to the Centers for Disease Control and Prevention:

- Adults aged 25 to 34 had the highest death rate involving opioids in 2015 (17.2 per 100,000 population), followed by adults aged 45 to 54 (15.9), adults aged 35 to 44 (15.7), and adults aged 55 to 64 (11.2).
- For those counties with 20 or more opioid-involved deaths, the age-adjusted death rates involving opioids were as follows: Calhoun (23.1 per 100,000), Monroe (18.0), Wayne (15.5), Muskegon (14.8), Ingham (14.8), Livingston (11.6), Washtenaw (10.3), Ottawa (9.9), Macomb (9.8), Kent (8.6), Genesee (7.8), and Oakland (2.7).
- The 3-year average of people admitted for treatment of opioid addiction showed that more female (54.3%), mostly Whites (86.2%) were admitted for publicly funded treatment programs. 26.1% were aged 30 to 35, and followed by individuals aged 26 to 29 (22.5%), individuals aged 36 to 44 (17.2%), and aged 21-25 (16.8%).
- 249 million prescriptions for opioid pain medication were written by healthcare providers in 2013.
- As many as 1 in 4 patients receiving long-term opioid therapy in primary care settings struggle with opioid use disorder.

Campaign Overview

To help develop the media plan for Prescription Drug and Opioid Abuse Campaign we used Nielsen Reports and Nielsen @plan research using the profile – *A25-44 in Michigan and filled a prescription within the last 90 days.*

Below are the findings from the research that helped determine the media mix.

- 64% of the target audience listened to traditional radio in the past week
- 63% of the target audience watched cable television in the past week
- 96% of the target audience accesses the internet 5+ times per week
- 90% of the target audience uses a cellular device to go online
- The target audience is 42% more likely to listen to Pandora's free streaming service than the average 18+ on-line user
- 89% of the target audience has 1+ social networking profile
- 78% of the target audience uses a desktop to go online
- The target audience is 89% more likely to search through a browser for how-to advice than the average 18+ on-line user

Campaign Overview

Creative strategy

Brand personality:

- Trustworthy, knowledgeable, reliable

Key Insights:

- Messages should share the clinical end-results of opioid abuse – Abuse can lead to death. The short-term gain is not worth the long-term gain.
- Addicts/abusers should not be stigmatized.
- Opioid abuse affects all ethnicities and socioeconomic groups.

Brand Truth:

- Opioids are powerful painkillers that are highly addictive that have killed thousands in Michigan. Prescription drug addiction does not discriminate and affects people of all income levels and ethnicities.

Consumer Truth:

- Prescription drug abuse is a problem for drug users and not someone like me, who doesn't do recreational drugs. My doctor has prescribed me painkillers, but they are legal and I would never use them recreationally.

True Connection:

- Misuse of prescribed painkillers is an epidemic in Michigan, but you can help stop it by being aware of your use and that of those around you.

Budget Recap

Medium	Budget	Added Value	Total Value	Impressions
MAB Radio	\$36,120.00	\$62,504.00	\$98,624.00	3,521,863
Radio	\$148,315.65	\$27,485.00	\$175,800.65	11,037,000
Cable	\$91,800.00	\$11,500.00	\$103,300.00	2,313,000
Digital	\$60,000.00	\$4,736.00	\$64,736.00	7,810,645
Pandora	\$40,000.00	\$64,000.00	\$104,000.00	6,565,401
Social	\$2,000.00	NA	\$2,000.00	469,774
Google AdWords	\$10,724.35	NA	\$10,724.35	1,085,659
Digital/Print – Prescriber Targeting	\$23,162.50	NA	\$23,162.50	211,500
Email – Prescriber Targeting	\$11,494.80	NA	\$11,494.80	46,129
Google AdWords – Prescriber Targeting	\$5,265.00	NA	\$5,265.55	275,655
Agency Fee	\$41,040.00	NA	\$41,040.00	NA
Production	\$70,077.70	NA	\$70,077.70	NA
Total:	\$540,000.00	\$170,225.00	\$710,225.00	29,814,763

Michigan Association of Broadcasters - Radio

Flight Dates

- July – November 2017

Dollars Invested

- \$36,120

Added Value

- \$62,504.00

Total Impressions

- 3,521,863

Creative

- :30 Radio, “Epidemic”_

<https://www.youtube.com/watch?v=PRfuOPq1uIM>

Radio

Flight Dates

- Weeks of 7/10, 7/17, 7/24

Rationale

- 64% of the target audience listened to traditional radio in the past week

Dollars Invested

- \$148,315.65

Added Value

- \$27,485

Impressions

- 11,037,000

Reach and frequency

- Detroit (88%, 6.3), Flint (58.8%, 7.5), Battle Creek (62.9%, 7.9), Kalamazoo (49.9%, 7.2), Saginaw (68.6%, 7.3), Traverse City (68.7%, 7.5), Grand Rapids (67.6%, 6.8)

Creative

- :60 Radio, "Unnamed"

<https://www.youtube.com/watch?v=8WhZNKu9TdM>

Cable

Flight Dates

- Weeks of 8/7, 8/14, 9/11, 9/18

Rationale

- 63% of the target audience watched cable television in the last week

Dollars Invested

- \$91,800

Added Value

- \$11,500

Impressions

- 2,313,000

Creative

- :30 TV, “Face of Addiction”

<https://www.youtube.com/watch?v=KZR-MzjOrWk>

Digital

Flight Dates

- July 17 – September 30

Rationale

- 96% of the target audience accesses the internet 5+ times per week

Dollars Invested

- \$60,000

Added Value

- \$4,736

Total Impressions

- 7,810,645

Clicks

- 56,933

Video Completions

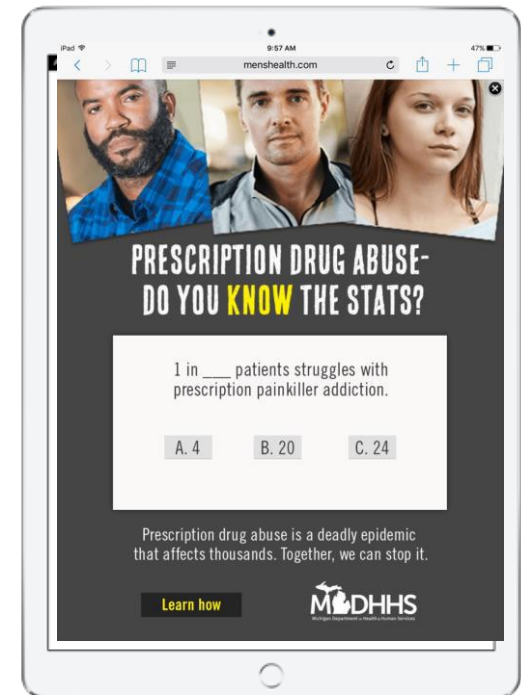
- 274,966

Video Completion Rate

- 80%
 - Vendor VCR benchmark: 70%

Creative

- Rich Media Quiz “Do you know the stats”
https://www.youtube.com/watch?v=DOW_QkHH_6Y
(View @ 1:00 mark)



Pandora

Flight Dates

- July 10 – September 10

Rationale

- Target is 42% more likely to listen to Pandora's free streaming service than the average A18+ on-line user

Dollars Invested

- \$40,000

Added Value

- \$64,000

Total Impressions

- 6,565,401

Clicks

- 6,297

Display CTR

- 0.39%
 - benchmark: 0.39%

Creative

- :30 Radio, "Unnamed"


R020806 MIX_NO SLATE 6-30-17 MDHHS Unnamed_Pandora.mp3



Social

Flight Dates

- 7/10 – 7/16, 8/7 – 8/13, 9/4 – 9/10, 10/2 – 10/8

Rationale

- 88% of the target audience has 1+ social networking profile

Dollars Invested

- \$2,000

Total Impressions

- 469,774

Clicks

- 4,627

CTR

- 0.98%



Addendum #1

Nielsen @plan Q3, 2016 A25-44 in Michigan and filled a prescription within the last 90 days

Google AdWords

Patient Targeting

Flight Dates

- July 10 – September 30

Rationale

- Target is 89% more likely to search through a browser for how-to-advice

Dollars Invested

- \$10,724.35

Total Impressions

- 1,085,659

Clicks

- 8,197

CTR

- 1.39%
 - Google CTR Benchmark: 1.0%

Do Your Part - Be the Solution

 www.michigan.gov/stopoverdoses

Prescription Drug & Opioid Abuse Prevention & Treatment For Patients & Families

Prescriber Targeting

Prescriber Targeting - Digital

Flight Dates

- May - October

Rationale

- Target prescribers through online medical journals – JAMA, MSMS and Michigan Pharmacists

Dollars Invested

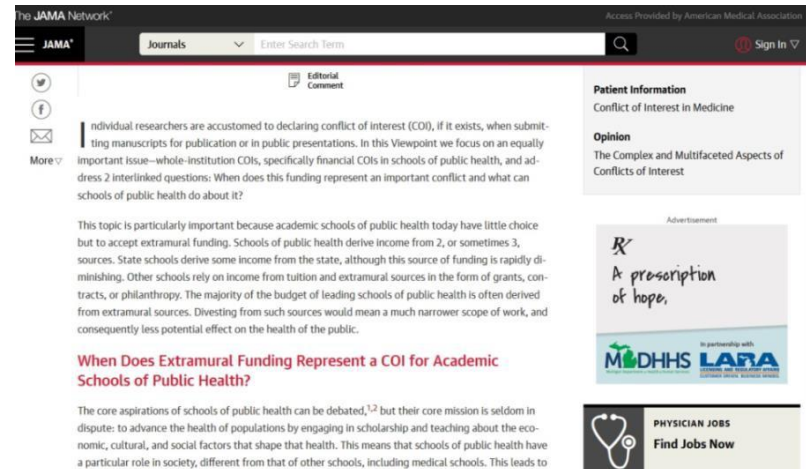
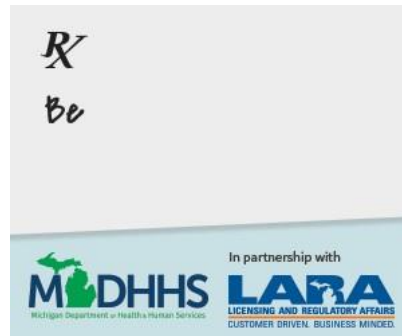
- \$19,062.50

Total Impressions

- 192,800

Total Clicks

- 433



Prescriber Targeting

Prescriber Targeting - Print

Flight Dates

- Michigan State Medical Society – 3/13
- Michigan Family Physicians – 6/15, 9/14

Rationale

- Target prescribers through medical print publications

Dollars Invested

- \$4,100

Total Impressions

- 18,700

Register to access the Michigan Automated Prescription System (MAPS).

You want to deliver the highest quality of care to your patient. As a prescriber, the more information you have can help you determine the best course of treatment. By registering for MAPS, you can query a patient's prescription history and prescriber sources. So you can:

1. Discern when to initiate or continue opioids for chronic pain
2. Determine opioid selection, dosage and duration
3. Assess the risk before a life-threatening addiction can take hold

Empower yourself. Improve care.

Register for MAPS at:
Michigan.gov/mimapsinfo

LARA
Michigan Department of Licensing and Regulatory Affairs
CUSTOMER SERVICE. SUPPORT. SERVICE.

MDHHS
Michigan Department of Health and Human Services

Name _____
Address _____
Date _____

Rx

To fight the opioid addiction epidemic, we have a prescription for hope.

The Michigan Automated Prescription System (MAPS).

- The death rate from opioid and heroin overdose has grown 3x in Michigan since 1999
- 91 Americans die every day from opioid overdose
- 3 out of 4 heroin users report having first used prescription opioids
- More than 50% of prescription drug abusers get unused pills from friends and family

Signature _____

Prescriber Targeting

Prescriber Targeting - Email

Flight Dates

- 5/8, 8/21, 9/18

Rationale

- Vendor has access to 1,000+ medical journals for doctors to choose from

Dollars Invested

- \$11,494.80

Total Counts Delivered

- 46,129

Total Opens

- 2,559

Total Clicks

- 356

Addendum #1

R
A prescription for hope in the fight against opioid abuse.
Michigan Automated Prescription System (MAPS)

Register to access the Michigan Automated Prescription System (MAPS).

As you know, opioid abuse and addiction is a growing problem. The facts are startling.

- The death rate from opioid and heroin overdose has grown 3 times in Michigan since 1999
- 91 Americans die every day from opioid overdose
- 3 out of 4 heroin users report having first used opioids
- More than 50% of prescription drug abusers get unused pills from friends and family

You want to deliver the highest quality of care to your patient. The more information you have can help you determine the best course of treatment. By registering for MAPS, you can query a patient's prescription history and prescriber sources. So you can 1) discern when to initiate or discontinue opioid use for chronic pain, 2) determine opioid selection, dosage and duration, 3) And assess the risk before a life-threatening addiction can take hold.

Empower yourself. Improve care.

[Register for MAPS](#)

In partnership with
MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES
LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MANDATE.



Google AdWords

Prescriber Targeting

Flight Dates

- April 30 – August 31

Rationale

- Target is 89% more likely to search through a browser for how-to-advice

Dollars Invested

- \$5,265

Total Impressions

- 275,655

Clicks

- 1,778

CTR

- 2.88%
 - Google CTR Benchmark: 1.0%

Prescription Data Collection - Prescription Monitoring
[\[Ad\] michigan.gov/Prescription/Monitoring](https://michigan.gov/Prescription/Monitoring)
Monitoring Programs To Identify & Prevent Drug Diversion At All Levels.

Prescription Drug Abuse - Prescription Monitoring
[\[Ad\] michigan.gov/Prescription/Monitoring](https://michigan.gov/Prescription/Monitoring)
Store Data Collected By Pharmacies & Dispensing Practitioners Into A Database.

Pre-Survey Results

In November 2017, the Michigan Department of Health and Human Services commissioned a survey to measure awareness of opioid abuse. The sample survey included 500 Michigan residents aged 25-44. The live operator telephone survey has a margin of error of +/-4.4% with a 95% level of confidence. All respondents were interviewed by cell phone.

Below are the key findings from the pre-survey:

- Respondents were asked on a one to ten scale – with one being not a problem and ten being a crisis – how big of an issue abuse of prescription painkillers and other opioids including heroin was in Michigan. Respondents rated the situation at 7.7 on a 10.0 scale.
 - Respondents ranking the crisis above an 8.0 included the Upper Peninsula/North, Macomb County, in small towns, under \$20,000 income, between \$70,000-\$100,000 income, and a high school education or less.

Pre-Survey Results

Below are the key findings from the pre-survey:

- Respondents were asked if they agree or disagree with the statement that “Prescription painkiller addiction primarily affects people who do not follow the prescription directions of the drug.” Respondents agreed with this statement by a margin of 56.0%-39.0% - 34.6% of respondents strongly agreed with this statement.
 - Of particular note was the difference by income. The chart below compares the intensity of agreement among those with incomes below \$40,000 as compared with those with incomes above \$40,000.

Income Level	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
<\$20,000	56.7%	16.7%	16.7%	10.0%
\$20-40,000	51.4%	18.6%	12.9%	8.6%
\$40-70,000	32.0%	23.3%	24.3%	17.5%
\$70-100,000	31.8%	18.2%	28.2%	19.1%
+ \$100,000	30.3%	22.0%	19.7%	21.2%

Pre-Survey Results

Below are the key findings from the pre-survey:

- Respondents were widely in agreement that prescription painkiller addiction does not affect a particular class, type of town, or ethnicity differently. 85.6% of respondents said that it affected all classes equally. 86.4% of respondents said it affected all regions equally. And 88.6% said it affected all races/ethnic groups equally.
 - There was one unique demographic finding on these questions, however. 21.7% of African American respondents said prescription painkiller addiction was most likely to affect people in suburban areas. And 26.1% of African American respondents said prescription painkiller addiction was most likely to affect Caucasian people.
 - African American respondents were significantly more likely to view prescription painkiller addiction as a Caucasian suburban problem.

Pre-Survey Results

Below are the key findings from the pre-survey:

- 64.4% of respondents say there is a drug to reverse the effects of an opioid overdose while 9.8% say there is no drug. 25.8% of respondents simply do not know.
 - Only 59.1% of Macomb respondents and 55.1% of Wayne respondents knew there was an overdose drug.
 - The chart below looks at income levels and whether respondents know there is a drug to reverse an overdose.

Income Level	Yes	No	Don't Know
Less than \$20,000	53.3%	16.7%	30.0%
\$20-40,000	62.9%	15.7%	21.4%
\$40-70,000	52.4%	11.7%	35.9%
\$70-100,000	70.0%	4.5%	25.5%
+\$100,000	66.7%	9.8%	23.5%

Pre-Survey Results

Below are the key findings from the pre-survey:

- In the past thirty days, 66.8% of respondents have seen or heard a message talking about addiction to prescription painkillers.
 - 64.7% said this message was on television while 33.5% said this message was on the radio.
 - 52.9% said this message was a PSA or commercial, while 61.7% said they saw this message as a news story.
 - 47.0% of respondents said the number of messages was more than usual while 49.7% of respondents said the number of messages was the same as usual.
- 18.4% of respondents recall seeing or hearing the slogan “Stop Overdoses.”
 - There was statistically significantly higher recognition of this slogan in the Detroit Metro region

2017- 2018 Campaign Overview

Overarching campaign objective:

- Decrease the number of opioid-related deaths in Michigan

Marketing communications objectives:

- Primary
 - Increase awareness of opioid addiction, treatment options and support resources available to Michiganders.
 - Drive people to michigan.gov/stopoverdoses

Target:

- Primary: A25-44 in Michigan who are at risk for abusing opioids. These are people who have been prescribed opioids by their physicians for pain management, or those who have not been prescribed, but have access to opioids. All ethnicities and income levels.
- Secondary: Family members or loved ones of those who are at risk for abusing opioids, or already are addicted.

Flight Dates: December 2017 – May 2018

Target Area: Statewide, including the upper peninsula and northern lower peninsula with focus on counties with high rates of opioid-involved deaths: Calhoun, Monroe, Wayne, Muskegon, Ingham, Livingston, Washtenaw, Ottawa, Macomb, Kent, Genesee and Oakland

Budget: \$500,000.00

Campaign Overview

Creative strategy – updated for digital

Brand personality:

- Trustworthy, knowledgeable, reliable

Key Insights:

- There is help for people who are addicted to opioids and they are not alone.
- Family members can help by knowing the signs of opioid addiction.

Brand Truth:

- Opioids are powerful painkillers that are highly addictive that have killed thousands in Michigan. Prescription drug addiction does not discriminate and affects people of all income levels and ethnicities.

Consumer Truth:

- Myself, or a family member is abusing opioids. I don't know what to do.

True Connection:

- Help is available for you or your loved one who is abusing opioids.

Campaign Overview

Updated digital creative targeting user:



Campaign Overview

Updated digital creative targeting loved ones:



Addendum #1

IS YOUR LOVED ONE STRUGGLING WITH
PRESCRIPTION PAINKILLER **ADDICTION?**



OPIOID DRUG ABUSE:
IS YOUR LOVED ONE **STRUGGLING?**

Do you know someone with
problematic drug use or abuse?

Yes

No

There is **help and hope** available for your loved one.
Learn the signs of opioid abuse and find resources.

Get help



OPIOID DRUG ABUSE:
IS YOUR LOVED ONE **STRUGGLING?**

Has a loved one ever used medication
other than how it was prescribed?

Yes

No

There is **help and hope** available for your loved one.
Learn the signs of opioid abuse and find resources.

Get help



Campaign Overview

Updated digital creative targeting loved ones:



The image shows a Facebook post from the Michigan Department of Health and Human Services (MDHHS). The post features the MDHHS logo, the text "Michigan Department of Health and Human Services", and a "Sponsored" label. The main text of the post reads: "Loved ones of individuals with opioid addiction can obtain Naloxone free of charge." Below the text is a photograph of a woman with curly hair embracing a man from behind. Overlaid on the bottom of the photo is the text "STOP OPIOID OVERDOSE." in large, bold, orange and white letters. At the bottom of the post, there is a link to "michigan.gov", the text "Stop Opioid Overdose" and "Naloxone can save lives.", and a button labeled "LEARN MORE".

Michigan Department of Health and Human Services
Sponsored

Loved ones of individuals with opioid addiction can obtain Naloxone free of charge.

STOP OPIOID OVERDOSE.

michigan.gov
Stop Opioid Overdose
Naloxone can save lives.

LEARN MORE



GLENGARIFF GROUP, INC.


**PRESCRIPTION PAINKILLER PRE CAMPAIGN AWARENESS SURVEY
500 SAMPLE SURVEY**

DECEMBER 1, 2017

TABLE OF CONTENTS

Page	Topic
2	Methodology
3	Key Findings
8	Aggregate Survey Results
17	Cross-tabulation Report

METHODOLOGY

The Glengariff Group, Inc. conducted a 500 sample survey of Michigan residents aged 25-44 years old. The live operator telephone survey was conducted from November 27-29, 2017 and has a margin of error of +/-4.4% with a 95% level of confidence. All respondents were interviewed by cell phone telephone. This survey was commissioned by the Michigan Department of Health and Human Services.

KEY FINDINGS

- Respondents were asked on a one to ten scale – with one being not a problem and ten being a crisis – how big of an issue abuse of prescription painkillers and other opioids including heroin was in Michigan. Respondents rated the situation at 7.7 on a 10.0 scale.
 - Respondents ranking the crisis above an 8.0 included the Upper Peninsula/North, Macomb County, in small towns, under \$20,000 income, between \$70,000-\$100,000 income, and a high school education or less.
 - White respondents rated the crisis at 7.8 while black respondents rated the situation at 7.1.

- Respondents were asked if they agree or disagree with the statement that ‘Only a small number of those people who take prescription pain medications become addicted.’ 40.6% of respondents agree with this statement compared to 51.0% who disagree with the statement.
 - The strongest level of disagreement to this statement came from Macomb County respondents where 61.0% disagree with the statement. [Note: Disagreement was higher among those with less than a high school degree, but the cell size of this demographic is too small to look at this number individually.]

- Respondents were asked if they agree or disagree with the statement that “Prescription painkiller addiction primarily affects people who do not follow the prescription directions of the drug.” Respondents agreed with this statement by a margin of 56.0%-39.0% -- 34.6% of respondents strongly agreed with this statement.
 - Of particular note was the difference by income. The chart below compares the intensity of agreement among those with incomes below \$40,000 as compared with those with incomes above \$40,000.

Income Level	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
<\$20,000	56.7%	16.7%	16.7%	10.0%
\$20-40,000	51.4%	18.6%	12.9%	8.6%
\$40-70,000	32.0%	23.3%	24.3%	17.5%
\$70-100,000	31.8%	18.2%	28.2%	19.1%
+ \$100,000	30.3%	22.0%	19.7%	21.2%

- Respondents were asked if they agree or disagree with the statement that “Prescription painkiller addiction primarily affects people who take painkillers for an extended period of time.” Respondents agree with this statement by a margin of 71.8%-24.2% -- 42.2% of respondents strongly agreed with this statement.
 - The strongest level of disagreement to this statement came from three primary demographics:
 - 33.9% of Oakland County respondents disagreed.
 - 30.8% of ‘suburban’ respondents disagreed.
 - 30.0% of respondents with less than \$20,000 in income disagreed.

- Respondents were asked if they agree or disagree with the statement that “Prescription painkiller addiction is an exaggerated problem.” By a margin of 10.4% - 84.0%, respondents overwhelmingly disagreed with this statement – 65.2% strongly disagree with the statement.
 - Several demographic groups were particularly intense in their disagreement with this statement:
 - 75.4% of UP/North respondents strongly disagreed.
 - 79.5% of Macomb respondents strongly disagreed.
 - 73.7% of small town respondents strongly disagreed.
 - 76.7% of respondents under \$20,000 strongly disagreed.

- Respondents were asked if they agree or disagree with the statement that “Prescription painkiller addiction can affect anyone that is prescribed painkillers, even for a short period of time.” By a margin of 81.0%-16.0%, respondents agreed with this statement. But intensity of agreement with this statement is split with 47.6% strongly agreeing and 33.4% somewhat agreeing.
 - The most intense agreement with this statement was with respondents under \$20,000 income who agreed 86.7%-13.3%, with 70.0% strongly agreeing with the statement.

- Respondents were asked what percentage of people prescribed painkillers in Michigan become addicted to them. The composite percentage was 41.3%. There was a significant progression of numbers by both income and education attainment – with high income and education levels both lowering their percentages of those that became addicted.

<u>Income</u>	<u>Percentage Addicted</u>	<u>Education</u>	<u>Percentage Addicted</u>
Less than \$20,000	58.5%	Less than High	60.0%
\$20-40,000	45.7%	High School Grad	49.8%
\$40-70,000	44.6%	Some Post	45.3%
\$70-100,000	38.5%	College Grad	36.8%
+\$100,000	35.2%		

- Respondents were widely in agreement that prescription painkiller addiction does not affect a particular class, type of town, or ethnicity differently. 85.6% of respondents said that it affected all classes equally. 86.4% of respondents said it affected all regions equally. And 88.6% said it affected all races/ethnic groups equally.
 - There was one unique demographic finding on these questions, however. 21.7% of black respondents said prescription painkiller addiction was most likely to affect people in suburban areas. And 26.1% of black respondents said prescription painkiller addiction was most likely to affect white people.
 - Black respondents were significantly more likely to view prescription painkiller addiction as a white suburban problem.
- By a margin of 75.8%- 6.0%, respondents say that heroin is an opioid. 18.2% of respondents do not know.
- 64.4% of respondents say there is a drug to reverse the effects of an opioid overdose while 9.8% say there is no drug. 25.8% of respondents simply do not know.
 - While 67.2% of white respondents said there was a drug to reverse an overdose, only 46.4% of black respondents said there was such a drug.
 - Only 59.1% of Macomb respondents and 55.1% of Wayne respondents knew there was an overdose drug.
 - The chart below looks at income levels and whether respondents know there is a drug to reverse an overdose.

<u>Income Level</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Less than \$20,000	53.3%	16.7%	30.0%
\$20-40,000	62.9%	15.7%	21.4%
\$40-70,000	52.4%	11.7%	35.9%
\$70-100,000	70.0%	4.5%	25.5%
+\$100,000	66.7%	9.8%	23.5%

- 83.2% of respondents agreed that addiction to prescription painkillers could lead to heroin use.
- Respondents were asked to provide a percentage of Michigan adults aged 18-44 who have used heroin in the past year. The composite percentage was 25.7%. The percentage decreased by rising income level and by education attainment.

<u>Income Level</u>	<u>Percent</u>	<u>Education Attainment</u>	<u>Percent</u>
Less than \$20,000	41.8%	Less than High School	45.0%
\$20-40,000	33.1%	High School Grad	32.9%
\$40-70,000	27.8%	Some Post	29.1%
\$70-100,000	22.4%	College Grad	21.7%
+\$100,000	19.0%		

- 62.8% of respondents say they personally know anyone addicted to prescription pain medications. There are no statistically significant differences based on income or education levels.
 - 64.0% of white respondents know someone, but only 46.4% of black respondents know someone. 55.1% of urban respondents say they know someone.
- 41.6% of respondents say they personally know someone that has a problem with heroin use.
 - The highest percentage of those knowing someone with a heroin problem was 54.5% among Macomb respondents.
 - Urban and Rural respondents were less likely to know someone with a heroin problem than suburban and small town respondents.

<u>Type of Town</u>	<u>Know Someone with Heroin Problem</u>
Urban	39.8%
Suburban	43.8%
Small Town	44.9%
Rural	35.1%

- In the past thirty days, 66.8% of respondents have seen or heard a message talking about addiction to prescription painkillers.
 - 64.7% said this message was on television while 33.5% said this message was on the radio.
 - 52.9% said this message was a PSA or commercial, while 61.7% said they saw this message as a news story.
 - 47.0% of respondents said the number of messages was more than usual while 49.7% of respondents said the number of messages was the same as usual.

- 18.4% of respondents recall seeing or hearing the slogan “Stop Overdoses.”
 - There was statistically significantly higher recognition of this slogan in the Detroit Metro region:

<u>Region</u>	<u>Recognition of Slogan</u>
UP/North	12.3%
West/SW	18.4%
Central	13.7%
Oakland	13.8%
Macomb	20.5%
Wayne	32.6%

- 28.4% of respondents self-report using prescription painkillers in the past two years. 24.8% of respondents self-report using these prescriptions as directed. 3.6% of respondents self-report not using prescription pain killers as directed.

PRESCRIPTION PAINKILLER PRE CAMPAIGN AWARENESS SURVEY

Hello, my name is _____. I'm not selling anything. I'm doing a quick survey of residents in our community. It should take approximately six minutes.

1. For purposes of balance, could you please tell me in what year you were born?

1.	18-24	1993 and later	TERMINATE	
2.	25-34	1983-1992	CONTINUE	23.0% (115)
3.	35-44	1973-1982	CONTINUE	77.0% (385)
4.	45 and older	1972 and earlier	TERMINATE	

2. And could you please tell me in which county you live in?

1.	UP/North	13.0% (65)
2.	West/Southwest	19.6% (98)
3.	Mid Michigan/East Central/ Detroit Rim MSA	27.8% (139)
4.	Oakland	13.0% (65)
5.	Macomb	8.8% (44)
6.	Wayne	17.8% (89)

3. On a scale of one to ten, with one being not a problem and ten being a crisis, how big of an issue would you say that abuse of prescription painkillers and other opioids including heroin is in Michigan? You can choose any number between one and ten.

SCORE: 7.7

1	2	3	4	5	6	7	8	9	10	DK/Ref
1.6%	0.6%	3.2%	1.6%	8.8%	4.2%	13.6%	19.2%	10.0%	25.8%	11.4%
(8)	(3)	(16)	(8)	(44)	(21)	(68)	(96)	(50)	(129)	(57)

4. Would you agree or disagree with the following statement: Only a small number of those people who take prescription pain medications become addicted. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

1.	Strongly agree	14.0%	(70)
2.	Somewhat agree	26.6%	(133)
3.	Somewhat disagree	24.0%	(120)
4.	Strongly disagree	27.0%	(135)
5.	Neither agree, nor disagree...DO NOT OFFER	2.2%	(11)
6.	Don't Know/ Refused....DO NOT OFFER	6.2%	(31)

5. Would you agree or disagree with the following statement: Prescription painkiller addiction primarily affects people who don't follow the prescription directions of the drug. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

1.	Strongly agree	34.6%	(173)
2.	Somewhat agree	21.4%	(107)
3.	Somewhat disagree	22.2%	(111)
4.	Strongly disagree	17.2%	(86)
5.	Neither agree, nor disagree...DO NOT OFFER	2.0%	(10)
6.	Don't Know/ Refused....DO NOT OFFER	2.6%	(13)

6. Would you agree or disagree with the following statement: Prescription painkiller addiction primarily affects people who take painkillers for an extended period of time. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

1.	Strongly agree	42.2%	(211)
2.	Somewhat agree	29.6%	(148)
3.	Somewhat disagree	13.6%	(68)
4.	Strongly disagree	10.6%	(53)
5.	Neither agree, nor disagree...DO NOT OFFER	1.6%	(8)
6.	Don't Know/ Refused....DO NOT OFFER	2.4%	(12)

7. Would you agree or disagree with the following statement: Prescription painkiller addiction is an exaggerated problem. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

1.	Strongly agree	5.0%	(25)
2.	Somewhat agree	5.4%	(27)
3.	Somewhat disagree	18.8%	(94)
4.	Strongly disagree	65.2%	(326)
5.	Neither agree, nor disagree...DO NOT OFFER	2.6%	(13)
6.	Don't Know/ Refused....DO NOT OFFER	3.0%	(15)

8. Would you agree or disagree with the following statement: Prescription painkiller addiction can affect anyone that is prescribed painkillers, even for a short period of time. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

1.	Strongly agree	47.6%	(238)
2.	Somewhat agree	33.4%	(167)
3.	Somewhat disagree	7.6%	(38)
4.	Strongly disagree	8.4%	(42)
5.	Neither agree, nor disagree...DO NOT OFFER	1.8%	(9)
6.	Don't Know/ Refused....DO NOT OFFER	1.2%	(6)

9. And what percentage of people that are prescribed prescription painkillers in Michigan would you say become addicted to those painkillers? You can give me any number between one and one hundred. IF DON'T KNOW, RECORD THE LETTER 'A'

SCORE: 41.3%

10. Would you say that addiction to prescription painkillers is most likely to affect those in the lower class, the middle class, the upper class – or would you say it would affect all classes equally?

1.	Lower Class	7.8%	(39)
2.	Middle Class	2.6%	(13)
3.	Upper Class	2.4%	(12)
4.	All classes equally	85.6%	(428)
5.	Don't Know/ Refused...DO NOT OFFER	1.6%	(8)

11. Would you say that addiction to prescription painkillers is most likely to affect those in rural areas, suburban areas, urban areas – or would you say it would affect all regions equally?

1.	Rural areas	3.2%	(16)
2.	Suburban areas	5.4%	(27)
3.	Urban areas	4.2%	(21)
4.	All regions equally	86.4%	(432)
5.	Don't Know/ Refused...DO NOT OFFER	0.8%	(4)

12. And would you say that addiction to prescription painkillers is most likely to affect white people, black people, Hispanic people, Native American people or would you say it would affect all race and ethnic groups equally?

1.	White	10.0%	(50)
2.	Black	0.2%	(1)
3.	Hispanic	0.2%	(1)
4.	Native American	0.0%	(0)
5.	Other ethnicity...DO NOT OFFER _____	0.0%	(0)
6.	All ethnicities equally	88.6%	(443)
7.	Don't Know/ Refused...DO NOT OFFER	1.0%	(5)

13. Would you say that heroin is or is not an opioid?

- | | | | |
|----|---------------------------|-------|-------|
| 1. | Is an opioid | 75.8% | (379) |
| 2. | Is not an opioid | 6.0% | (30) |
| 3. | Don't Know...DO NOT OFFER | 18.2% | (91) |
| 4. | Refused....DO NOT OFFER | 0.0% | (0) |

14. Would you say there is or is not a drug that can be used to reverse the effects of an opioid overdose?

- | | | | |
|----|---------------------------|-------|-------|
| 1. | Is a drug | 64.4% | (322) |
| 2. | There is not a drug | 9.8% | (49) |
| 3. | Don't Know...DO NOT OFFER | 25.8% | (129) |
| 4. | Refused...DO NOT OFFER | 0.0% | (0) |

15. Would you say that addiction to prescription painkillers could lead to heroin use?

- | | | | |
|----|------------------------------------|-------|-------|
| 1. | Yes | 83.2% | (416) |
| 2. | No | 8.4% | (42) |
| 3. | Don't Know/ Refused...DO NOT OFFER | 8.4% | (42) |

16. Please estimate the percentage of adults in Michigan aged 18-44 who have used heroin in the past year? You can give me any number between one and one hundred. IF DON'T KNOW, RECORD THE LETTER 'A'

SCORE: 25.7%

17. Do you personally know anyone who has become addicted to prescription pain medications?

- | | | | |
|----|------------------------------------|-------|-------|
| 1. | Yes | 62.8% | (314) |
| 2. | No | 36.8% | (184) |
| 3. | Don't Know/ Refused...DO NOT OFFER | 0.4% | (2) |

18. Do you personally know anyone who has had a problem with heroin use?

- | | | | |
|----|-------------------------------------|-------|-------|
| 1. | Yes | 41.6% | (208) |
| 2. | No | 57.4% | (287) |
| 3. | Don't Know/ Refused....DO NOT OFFER | 1.0% | (5) |

19. In the past 30 days, have you seen or heard any messages talking about addiction to prescription painkillers, such as a public service announcement on tv, message on the radio, news stories or something else?

- | | | | |
|----|-------------------------------------|-------|-------|
| 1. | Yes....MOVE TO Q20 | 66.8% | (334) |
| 2. | No...MOVE TO Q23 | 32.8% | (164) |
| 3. | Don't Know/ Undecided...MOVE TO Q23 | 0.4% | (2) |
| 4. | Refused....MOVE TO Q23 | 0.0% | (0) |

20. And where did you see or hear these messages?

- | | | | |
|----|---|-------|-------|
| 1. | Television....MOVE TO Q21 | 64.7% | (216) |
| 2. | Radio.....MOVE TO Q21 | 33.5% | (112) |
| 3. | Friend or relative/ MOVE TO Q 22 | 2.4% | (8) |
| 4. | Newspaper/ MOVE TO Q22 | 5.4% | (18) |
| 5. | Internet....MOVE TO Q21 | 21.0% | (70) |
| 6. | Billboard/ MOVE TO Q22 | 6.3% | (21) |
| 7. | Other _____ / MOVE TO Q22 | 3.9% | (13) |
| | [Doctor's office (3), Magazine (1), Notification at school (1), Walgreens (1), I'm a registered nurse (1), Seminar with the State police (1), At work classes (1), At work in the medical field (1), City meetings at townhall (1)] | | |
| 8. | Don't Know/ Undecided....DO NOT OFFER/ MOVE TO Q22 | 2.1% | (7) |
| 9. | Refused...DO NOT OFFER/ MOVE TO Q22 | 0.0% | (0) |

21. Was the TV/Radio/Internet message a commercial or advertisement, was it part of a news program, or was it something else?
IF SOMETHING ELSE, ASK: AND WHAT WOULD THAT HAVE BEEN?

[MORE THAN ONE RESPONSE ALLOWED]

1.	Commercial/ Advertisement/ Public Service Announcement	52.9%	(163)
2.	News story/ News program	61.7%	(190)
3.	YouTube	0.3%	(1)
4.	Pandora	0.6%	(2)
5.	Facebook	10.7%	(33)
6.	Twitter	0.6%	(2)
7.	Something else _____	1.9%	(6)
8.	Don't Know/ Undecided...DO NOT OFFER	1.6%	(5)
9.	Refused...DO NOT OFFER	0.0%	(0)

22. Would you say that the number of these messages you have seen or heard in the past 30 days is more than usual, fewer than usual, or about the same as usual?

1.	More than usual	47.0%	(157)
2.	Fewer than usual	2.1%	(7)
3.	About the same as usual	49.7%	(166)
4.	Don't Know/ Undecided...DO NOT OFFER	1.2%	(4)
5.	Refused...DO NOT OFFER	0.0%	(0)

23. Do you recall seeing or hearing the slogan "Stop Overdoses" in the past thirty days?

1.	Yes	18.4%	(92)
2.	No	79.0%	(395)
3.	Don't Know/ Refused...DO NOT OFFER	2.6%	(13)

Now, just a few questions for statistical purposes.

24. What is your race or ethnic background?

1.	White	75.6%	(378)
2.	African American	13.8%	(69)
3.	Hispanic (Puerto Rican/ Mexican-American)	2.4%	(12)
4.	Asian	1.2%	(6)
5.	Mixed Race	3.2%	(16)
6.	Native American	1.2%	(6)
7.	Don't Know/ Refused...DO NOT OFFER	2.6%	(13)

25. What is the last grade or level of schooling you completed?
[DO NOT OFFER OPTIONS]

1.	Not a high school graduate	1.0%	(5)
2.	High school graduate	18.6%	(93)
3.	Vocational Training/ Community College/ Some College	21.0%	(105)
4.	College Graduate	59.4%	(297)
5.	Don't Know/ Refused...DO NOT OFFER	0.0%	(0)

26. In the past two years, would you say you have or have not used prescription painkillers?
IF YES, ASK: AND WOULD YOU SAY YOU HAVE ALWAYS USED THEM AS PRESCRIBED OR WOULD YOU SAY THERE HAVE BEEN TIMES WHEN YOU HAVE USED THEM MORE FREQUENTLY THAN PRESCRIBED?

1.	Yes, always as prescribed	24.8%	(124)
2.	Yes, more frequently then prescribed/ Used them when not prescribed	3.6%	(18)
3.	No	70.8%	(354)
4.	Don't Know....DO NOT OFFER	0.0%	(0)
5.	Refused....DO NOT OFFER	0.8%	(4)

27. Would you say you live in an urban city, a suburban area, a small town, or a rural area?

1.	Urban city	19.6%	(98)
2.	Suburban area	37.0%	(185)
3.	Small town	23.6%	(118)
4.	Rural area	18.8%	(94)
5.	Don't Know/ Refused...DO NOT OFFER	1.0%	(5)

28. I am going to read you several categories. Please tell me in which category your total household income before taxes would fall.

1.	Under \$20,000	6.0%	(30)
2.	\$20,000-40,000	14.0%	(70)
3.	\$40,000-70,000	20.6%	(103)
4.	\$70,000-100,000	22.0%	(110)
5.	More than \$100,000	26.4%	(132)
6.	Refused...DO NOT OFFER	11.0%	(55)

29. Sex: DO NOT ASK

1.	Male	50.0%	(250)
2.	Female	50.0%	(250)

THANK YOU, THAT COMPLETES OUR SURVEY.

3. On a scale of one to ten, with one being not a problem and ten being a crisis, how big of an issue would you say that abuse of prescription painkillers and other opioids including heroin is in Michigan? You can choose any number between one and ten.

	SCORE
Male	7.7
Female	7.8
UP/North	8.0
W/SW	7.2
Central	7.8
Oakland	7.8
Macomb	8.1
Wayne	7.7
Urban	7.5
Suburban	7.6
Small	8.1
Rural	7.8
White	7.8
Black	7.1
<20,000	8.1
20-40,000	7.9
40-70,000	7.6
70-100,000	8.0
+100,000	7.4
<High	8.8
High Grad	8.0
Some Post	7.9
College Grad	7.6

4. Would you agree or disagree with the following statement: Only a small number of those people who take prescription pain medications become addicted. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Male	15.2%	26.4%	24.0%	27.6%
Female	12.8%	26.8%	24.0%	26.4%
UP/North	3.1%	35.4%	20.0%	26.2%
W/SW	16.3%	27.6%	21.4%	24.5%
Central	19.4%	23.0%	25.9%	28.1%
Oakland	7.7%	30.8%	32.3%	18.5%
Macomb	13.6%	22.7%	29.5%	31.8%
Wayne	15.7%	23.6%	18.0%	32.6%
Urban	11.2%	30.6%	16.3%	33.7%
Suburban	15.1%	24.9%	27.6%	24.9%
Small	12.7%	24.6%	28.8%	25.4%
Rural	16.0%	26.6%	20.2%	26.6%
White	12.7%	26.2%	26.5%	25.7%
Black	17.4%	29.0%	13.0%	33.3%
<20,000	23.3%	20.0%	16.7%	40.0%
20-40,000	14.3%	35.7%	18.6%	20.0%
40-70,000	10.7%	20.4%	29.1%	33.0%
70-100,000	12.7%	28.2%	22.7%	27.3%
+100,000	12.1%	25.0%	25.0%	26.5%
<High	0.0%	20.0%	20.0%	60.0%
High Grad	18.3%	24.7%	21.5%	31.2%
Some Post	19.0%	23.8%	21.0%	26.7%
College Grad	11.1%	28.3%	25.9%	25.3%

5. Would you agree or disagree with the following statement: Prescription painkiller addiction primarily affects people who don't follow the prescription directions of the drug. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Male	34.8%	20.4%	22.8%	18.4%
Female	34.4%	22.4%	21.6%	16.0%
UP/North	32.3%	23.1%	27.7%	10.8%
W/SW	30.6%	23.5%	23.5%	17.3%
Central	37.4%	23.0%	18.7%	17.3%
Oakland	26.2%	21.5%	24.6%	23.1%
Macomb	38.6%	15.9%	20.5%	20.5%
Wayne	40.4%	18.0%	21.3%	15.7%
Urban	42.9%	21.4%	9.2%	20.4%
Suburban	29.2%	20.0%	25.9%	21.1%
Small	39.0%	22.9%	22.9%	11.9%
Rural	30.9%	22.3%	27.7%	12.8%
White	31.2%	23.5%	23.5%	17.2%
Black	43.5%	15.9%	14.5%	18.8%
<20,000	56.7%	16.7%	16.7%	10.0%
20-40,000	51.4%	18.6%	12.9%	8.6%
40-70,000	32.0%	23.3%	24.3%	17.5%
70-100,000	31.8%	18.2%	28.2%	19.1%
+100,000	30.3%	22.0%	19.7%	21.2%
<High	60.0%	20.0%	0.0%	20.0%
High Grad	35.5%	21.5%	22.6%	15.1%
Some Post	39.0%	23.8%	18.1%	15.2%
College Grad	32.3%	20.5%	23.9%	18.5%

6. Would you agree or disagree with the following statement: Prescription painkiller addiction primarily affects people who take painkillers for an extended period of time. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Male	40.8%	29.6%	15.2%	10.0%
Female	43.6%	29.6%	12.0%	11.2%
UP/North	43.1%	30.8%	7.7%	10.8%
W/SW	42.9%	31.6%	12.2%	10.2%
Central	50.4%	25.9%	15.8%	7.2%
Oakland	29.2%	27.7%	18.5%	15.4%
Macomb	47.7%	29.5%	13.6%	6.8%
Wayne	34.8%	33.7%	12.4%	14.6%
Urban	44.9%	27.6%	11.2%	9.2%
Suburban	36.8%	29.7%	17.8%	13.0%
Small	45.8%	30.5%	10.2%	9.3%
Rural	45.7%	30.9%	12.8%	7.4%
White	41.8%	31.2%	14.3%	8.7%
Black	43.5%	24.6%	13.0%	15.9%
<20,000	26.7%	30.0%	16.7%	23.3%
20-40,000	47.1%	30.0%	10.0%	7.1%
40-70,000	48.5%	28.2%	12.6%	7.8%
70-100,000	39.1%	32.7%	16.4%	8.2%
+100,000	38.6%	29.5%	14.4%	13.6%
<High	20.0%	20.0%	40.0%	0.0%
High Grad	46.2%	30.1%	10.8%	10.8%
Some Post	45.7%	30.5%	10.5%	10.5%
College Grad	40.1%	29.3%	15.2%	10.8%

7. Would you agree or disagree with the following statement: Prescription painkiller addiction is an exaggerated problem.
 ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Male	6.0%	6.8%	16.4%	64.8%
Female	4.0%	4.0%	21.2%	65.6%
UP/North	0.0%	4.6%	15.4%	75.4%
W/SW	5.1%	7.1%	19.45	61.2%
Central	6.5%	5.8%	12.2%	68.3%
Oakland	1.5%	4.6%	36.9%	52.3%
Macomb	2.3%	4.5%	11.4%	79.5%
Wayne	10.1%	4.5%	21.3%	59.6%
Urban	11.2%	7.1%	17.3%	59.2%
Suburban	3.2%	3.2%	24.9%	63.8%
Small	5.1%	6.8%	11.9%	73.7%
Rural	2.1%	6.4%	17.0%	63.8%
White	3.2%	5.6%	19.0%	65.3%
Black	15.9%	5.8%	21.7%	55.1%
<20,000	10.0%	6.7%	6.7%	76.7%
20-40,000	8.6%	5.7%	17.1%	61.4%
40-70,000	4.9%	4.9%	17.5%	68.0%
70-100,000	2.7%	5.5%	22.7%	62.7%
+100,000	3.8%	6.8%	22.0%	61.4%
<High	20.0%	20.0%	0.0%	60.0%
High Grad	6.5%	7.5%	10.8%	69.9%
Some Post	7.6%	3.8%	20.0%	64.8%
College Grad	3.4%	5.1%	21.2%	64.0%

8. Would you agree or disagree with the following statement: Prescription painkiller addiction can affect anyone that is prescribed painkillers, even for a short period of time. ASK: WOULD THAT BE STRONGLY AGREE/DISAGREE OR JUST SOMEWHAT AGREE/DISAGREE?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Male	46.0%	35.2%	8.0%	7.6%
Female	49.2%	31.6%	7.2%	9.2%
UP/North	40.0%	40.0%	10.8%	6.2%
W/SW	39.8%	37.8%	9.2%	11.2%
Central	49.6%	34.5%	5.0%	7.2%
Oakland	53.8%	32.3%	4.6%	4.6%
Macomb	52.3%	27.3%	6.8%	9.1%
Wayne	51.7%	25.8%	10.1%	11.2%
Urban	51.0%	25.5%	5.1%	13.3%
Suburban	48.6%	33.5%	8.6%	7.0%
Small	43.2%	39.0%	6.8%	7.6%
Rural	45.7%	35.1%	9.6%	7.4%
White	47.4%	33.9%	7.9%	7.1%
Black	47.8%	30.4%	5.8%	15.9%
<20,000	70.0%	16.7%	3.3%	10.0%
20-40,000	37.1%	38.6%	8.6%	12.9%
40-70,000	45.6%	34.0%	11.7%	7.8%
70-100,000	47.3%	38.2%	5.5%	4.5%
+100,000	50.8%	31.1%	6.8%	9.1%
<High	60.0%	20.0%	0.0%	20.0%
High Grad	49.5%	32.3%	12.9%	5.4%
Some Post	49.5%	32.4%	4.8%	11.4%
College Grad	46.1%	34.3%	7.1%	8.1%

9. And what percentage of people that are prescribed prescription painkillers in Michigan would you say become addicted to those painkillers? You can give me any number between one and one hundred. IF DON'T KNOW, RECORD THE LETTER 'A'

	SCORE
Male	36.9%
Female	45.5%
UP/North	44.1%
W/SW	35.7%
Central	42.8%
Oakland	34.1%
Macomb	45.8%
Wayne	45.3%
Urban	41.4%
Suburban	38.6%
Small	44.1%
Rural	41.8%
White	40.0%
Black	45.2%
<20,000	58.5%
20-40,000	45.7%
40-70,000	44.6%
70-100,000	38.5%
+100,000	35.2%
<High	60.0%
High Grad	49.8%
Some Post	45.3%
College Grad	36.8%

10. Would you say that addiction to prescription painkillers is most likely to affect those in the lower class, the middle class, the upper class – or would you say it would affect all classes equally?

	Lower	Middle	Upper	All Equally
Male	9.6%	1.2%	2.8%	84.8%
Female	6.0%	4.0%	2.0%	86.4%
UP/North	13.8%	3.1%	0.0%	83.1%
W/SW	6.1%	1.0%	3.1%	87.8%
Central	5.8%	2.2%	1.4%	89.9%
Oakland	4.6%	3.1%	3.1%	87.7%
Macomb	13.6%	2.3%	0.0%	84.1%
Wayne	7.9%	4.5%	5.6%	77.5%
Urban	6.1%	2.0%	7.1%	81.6%
Suburban	8.6%	4.3%	0.5%	84.9%
Small	5.1%	0.8%	1.7%	91.5%
Rural	11.7%	2.1%	2.1%	83.0%
White	7.9%	2.9%	1.1%	86.8%
Black	7.2%	1.4%	10.1%	79.7%
<20,000	10.0%	0.0%	6.7%	83.3%
20-40,000	7.1%	1.4%	2.9%	88.6%
40-70,000	5.8%	3.9%	1.9%	87.4%
70-100,000	10.0%	2.7%	1.8%	84.5%
+100,000	8.3%	2.3%	2.3%	84.8%
<High	0.0%	20.0%	0.0%	80.0%
High Grad	4.3%	1.1%	2.2%	90.3%
Some Post	9.5%	0.0%	1.9%	87.6%
College Grad	8.4%	3.7%	2.7%	83.5%

11. Would you say that addiction to prescription painkillers is most likely to affect those in rural areas, suburban areas, urban areas – or would you say it would affect all regions equally?

	Rural	Suburban	Urban	All Equally
Male	3.6%	5.6%	4.8%	85.2%
Female	2.8%	5.2%	3.6%	87.6%
UP/North	7.7%	3.1%	0.0%	87.7%
W/SW	2.0%	2.0%	7.1%	87.8%
Central	2.2%	4.3%	2.2%	91.4%
Oakland	0.0%	6.2%	7.7%	83.1%
Macomb	9.1%	2.3%	6.8%	81.8%
Wayne	2.2%	13.5%	3.4%	80.9%
Urban	3.1%	11.2%	5.1%	80.6%
Suburban	3.8%	5.4%	7.6%	82.7%
Small	2.5%	3.4%	0.0%	93.2%
Rural	3.2%	2.1%	2.1%	90.4%
White	3.4%	2.6%	4.5%	88.4%
Black	0.0%	21.7%	2.9%	75.4%
<20,000	0.0%	10.0%	0.0%	90.0%
20-40,000	2.9%	7.1%	1.4%	88.6%
40-70,000	3.9%	5.8%	2.9%	86.4%
70-100,000	6.4%	5.5%	4.5%	82.7%
+100,000	2.3%	3.0%	6.1%	87.1%
<High	0.0%	0.0%	20.0%	80.0%
High Grad	2.2%	4.3%	1.1%	92.5%
Some Post	1.0%	7.6%	3.8%	86.7%
College Grad	4.4%	5.1%	5.1%	84.5%

12. And would you say that addiction to prescription painkillers is most likely to affect white people, black people, Hispanic people, Native American people or would you say it would affect all race and ethnic groups equally?

	White	Black	Hispanic	Native American	All Equally
Male	9.2%	0.0%	0.0%	0.0%	89.6%
Female	10.8%	0.4%	0.4%	0.0%	87.6%
UP/North	4.6%	0.0%	0.0%	0.0%	95.4%
W/SW	11.2%	0.0%	1.0%	0.0%	87.8%
Central	8.6%	0.7%	0.0%	0.0%	90.6%
Oakland	12.3%	0.0%	0.0%	0.0%	85.6%
Macomb	2.3%	0.0%	0.0%	0.0%	93.2%
Wayne	16.9%	0.0%	0.0%	0.0%	82.0%
Urban	15.3%	0.0%	1.0%	0.0%	82.7%
Suburban	11.4%	0.0%	0.0%	0.0%	87.0%
Small	9.3%	0.0%	0.0%	0.0%	89.8%
Rural	3.2%	1.1%	0.0%	0.0%	95.7%
White	6.6%	0.3%	0.3%	0.0%	91.8%
Black	26.1%	0.0%	0.0%	0.0%	73.9%
<20,000	6.7%	0.0%	0.0%	0.0%	93.3%
20-40,000	7.1%	0.0%	1.4%	0.0%	91.4%
40-70,000	11.7%	1.0%	0.0%	0.0%	86.4%
70-100,000	10.0%	0.0%	0.0%	0.0%	90.0%
+100,000	10.6%	0.0%	0.0%	0.0%	87.1%
<High	0.0%	0.0%	0.0%	0.0%	100.0%
High Grad	7.5%	0.0%	1.1%	0.0%	90.3%
Some Post	12.4%	0.0%	0.0%	0.0%	85.7%
College Grad	10.1%	0.3%	0.0%	0.0%	88.9%

13. Would you say that heroin is or is not an opioid?

	Is Opioid	Is Not Opioid
Male	79.6%	3.6%
Female	72.0%	8.4%
UP/North	73.8%	6.2%
W/SW	82.7%	2.0%
Central	74.1%	7.2%
Oakland	69.2%	9.2%
Macomb	79.5%	2.3%
Wayne	75.3%	7.9%
Urban	79.6%	6.1%
Suburban	77.8%	4.9%
Small	76.3%	3.4%
Rural	67.0%	11.7%
White	77.5%	4.5%
Black	71.0%	10.1%
<20,000	76.7%	3.3%
20-40,000	68.6%	8.6%
40-70,000	75.7%	5.8%
70-100,000	83.6%	5.5%
+100,000	75.8%	6.1%
<High	80.0%	0.0%
High Grad	69.9%	6.5%
Some Post	73.3%	4.8%
College Grad	78.5%	6.4%

14. Would you say there is or is not a drug that can be used to reverse the effects of an opioid overdose?

	Is Drug	Is No Drug
Male	61.6%	10.4%
Female	67.2%	9.2%
UP/North	66.2%	10.8%
W/SW	65.3%	8.2%
Central	70.5%	6.5%
Oakland	64.6%	6.2%
Macomb	59.1%	13.6%
Wayne	55.1%	16.9%
Urban	60.2%	11.2%
Suburban	63.8%	11.4%
Small	66.1%	9.3%
Rural	68.1%	6.4%
White	67.2%	8.2%
Black	46.4%	20.3%
<20,000	53.3%	16.7%
20-40,000	62.9%	15.7%
40-70,000	52.4%	11.7%
70-100,000	70.0%	4.5%
+100,000	66.7%	9.8%
<High	20.0%	40.0%
High Grad	51.6%	10.8%
Some Post	63.8%	11.4%
College Grad	69.4%	8.4%

15. Would you say that addiction to prescription painkillers could lead to heroin use?

	Yes	No
Male	81.6%	10.0%
Female	84.8%	6.8%
UP/North	90.8%	3.1%
W/SW	85.7%	8.2%
Central	83.5%	7.9%
Oakland	76.9%	7.7%
Macomb	84.1%	4.5%
Wayne	78.7%	15.7%
Urban	82.7%	13.3%
Suburban	78.9%	10.3%
Small	89.0%	4.2%
Rural	86.2%	5.3%
White	84.7%	6.1%
Black	78.3%	18.8%
<20,000	86.7%	10.0%
20-40,000	82.9%	14.3%
40-70,000	78.6%	10.7%
70-100,000	86.4%	3.6%
+100,000	85.6%	6.8%
<High	100.0%	0.0%
High Grad	78.5%	8.6%
Some Post	88.6%	6.7%
College Grad	82.5%	9.1%

16. Please estimate the percentage of adults in Michigan aged 18-44 who have used heroin in the past year? You can give me any number between one and one hundred. IF DON'T KNOW, RECORD THE LETTER 'A'

	Percentage
Male	21.0%
Female	30.5%
UP/North	25.1%
W/SW	24.1%
Central	27.5%
Oakland	19.4%
Macomb	26.6%
Wayne	29.3%
Urban	29.5%
Suburban	22.9%
Small	29.6%
Rural	21.9%
White	23.0%
Black	36.6%
<20,000	41.8%
20-40,000	33.1%
40-70,000	27.8%
70-100,000	22.4%
+100,000	19.0%
<High	45.0%
High Grad	32.9%
Some Post	29.1%
College Grad	21.7%

17. Do you personally know anyone who has become addicted to prescription pain medications?

	Yes	No
Male	65.2%	34.4%
Female	60.4%	39.2%
UP/North	61.5%	36.9%
W/SW	59.2%	40.8%
Central	65.5%	33.8%
Oakland	69.2%	30.8%
Macomb	59.1%	40.9%
Wayne	60.7%	39.3%
Urban	55.1%	44.9%
Suburban	63.8%	36.2%
Small	68.6%	29.7%
Rural	61.7%	38.3%
White	64.0%	35.4%
Black	46.4%	53.6%
<20,000	63.3%	36.7%
20-40,000	60.0%	40.0%
40-70,000	66.0%	34.0%
70-100,000	67.3%	32.7%
+100,000	61.4%	38.6%
<High	60.0%	40.0%
High Grad	63.4%	35.5%
Some Post	68.6%	30.5%
College Grad	60.6%	39.4%

18. Do you personally know anyone who has had a problem with heroin use?

	Yes	No
Male	40.8%	58.4%
Female	42.4%	56.4%
UP/North	40.0%	60.0%
W/SW	34.7%	62.2%
Central	38.8%	59.7%
Oakland	44.6%	55.4%
Macomb	54.5%	45.5%
Wayne	46.1%	53.9%
Urban	39.8%	59.2%
Suburban	43.8%	55.7%
Small	44.9%	54.2%
Rural	35.1%	63.8%
White	40.7%	58.5%
Black	42.0%	56.5%
<20,000	40.0%	60.0%
20-40,000	44.3%	54.3%
40-70,000	43.7%	55.3%
70-100,000	42.7%	57.3%
+100,000	41.7%	57.6%
<High	40.0%	60.0%
High Grad	45.2%	52.7%
Some Post	46.7%	52.4%
College Grad	38.7%	60.6%

19. In the past 30 days, have you seen or heard any messages talking about addiction to prescription painkillers, such as a public service announcement on tv, message on the radio, news stories or something else?

	Yes	No
Male	66.8%	32.4%
Female	66.8%	33.2%
UP/North	70.8%	29.2%
W/SW	65.3%	34.7%
Central	64.7%	34.5%
Oakland	67.7%	30.8%
Macomb	65.9%	34.1%
Wayne	68.5%	31.5%
Urban	64.3%	35.7%
Suburban	69.2%	30.3%
Small	68.6%	31.4%
Rural	63.8%	35.1%
White	67.5%	32.0%
Black	59.4%	40.6%
<20,000	60.0%	40.0%
20-40,000	62.9%	37.1%
40-70,000	63.1%	35.9%
70-100,000	70.9%	28.2%
+100,000	73.5%	26.5%
<High	40.0%	60.0%
High Grad	64.5%	35.5%
Some Post	69.5%	29.5%
College Grad	67.0%	32.7%

20. And where did you see or hear these messages?

	TV	Radio	Friend	Newspaper	Internet	Billboard
Male	61.7%	38.9%	1.2%	6.0%	15.0%	4.8%
Female	67.7%	28.1%	3.6%	4.8%	26.9%	7.8%
UP/North	50.0%	37.0%	4.3%	8.7%	28.3%	4.3%
W/SW	68.8%	32.8%	1.6%	3.1%	21.9%	3.1%
Central	62.2%	31.1%	2.2%	5.6%	18.9%	5.6%
Oakland	77.3%	36.4%	4.5%	0.0%	13.6%	11.4%
Macomb	62.1%	31.0%	3.4%	6.9%	13.8%	0.0%
Wayne	67.2%	34.4%	0.0%	8.2%	26.2%	11.5%
Urban	71.4%	23.8%	1.6%	4.8%	23.8%	3.2%
Suburban	70.3%	33.6%	0.8%	4.7%	15.6%	7.0%
Small	56.8%	42.0%	4.9%	4.9%	22.2%	7.4%
Rural	56.7%	31.7%	3.3%	8.3%	28.3%	6.7%
White	62.4%	35.3%	3.1%	5.5%	21.6%	7.5%
Black	80.5%	26.8%	0.0%	2.4%	22.0%	2.4%
<20,000	77.8%	11.1%	0.0%	0.0%	16.7%	0.0%
20-40,000	65.9%	25.0%	6.8%	4.5%	11.4%	2.3%
40-70,000	58.5%	36.9%	1.5%	4.6%	30.8%	1.5%
70-100,000	60.3%	32.1%	0.0%	6.4%	19.2%	10.3%
+100,000	71.1%	41.2%	3.1%	4.1%	19.6%	8.2%
<High	50.0%	100.0%	0.0%	0.0%	0.0%	0.0%
High Grad	73.3%	33.3%	5.0%	3.3%	20.0%	3.3%
Some Post	63.0%	27.4%	5.5%	9.6%	19.2%	5.5%
College Grad	62.8%	35.2%	0.5%	4.5%	22.1%	7.5%

21. Was the TV/Radio/Internet message a commercial or advertisement, was it part of a news program, or was it something else?
 IF SOMETHING ELSE, ASK: AND WHAT WOULD THAT HAVE BEEN?

	PSA/Comm	News Story	You Tube	Pandora	Facebook	Twitter
Male	49.7%	64.1%	0.7%	0.7%	3.9%	0.0%
Female	56.1%	59.4%	0.0%	0.6%	17.4%	1.3%
UP/North	47.6%	64.3%	0.0%	0.0%	11.9%	2.4%
W/SW	50.8%	67.8%	0.0%	0.0%	8.5%	1.7%
Central	49.4%	64.2%	0.0%	1.2%	13.6%	0.0%
Oakland	57.1%	66.7%	0.0%	0.0%	9.5%	0.0%
Macomb	50.0%	46.4%	0.0%	3.6%	3.6%	0.0%
Wayne	62.5%	53.6%	1.8%	0.0%	12.5%	0.0%
Urban	50.0%	61.7%	1.7%	0.0%	13.3%	1.7%
Suburban	57.1%	58.8%	0.0%	0.8%	7.6%	0.0%
Small	52.7%	60.8%	0.0%	0.0%	12.2%	1.4%
Rural	46.3%	68.5%	0.0%	1.9%	13.0%	0.0%
White	52.8%	62.1%	0.0%	0.9%	11.5%	0.9%
Black	55.0%	57.5%	0.0%	0.0%	10.0%	0.0%
<20,000	81.3%	37.5%	0.0%	0.0%	12.5%	0.0%
20-40,000	57.5%	55.0%	0.0%	0.0%	5.0%	2.5%
40-70,000	47.5%	63.9%	0.0%	1.6%	19.7%	0.0%
70-100,000	50.7%	58.9%	0.0%	1.4%	9.6%	0.0%
+100,000	49.5%	65.9%	1.1%	0.0%	7.7%	0.0%
<High	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%
High Grad	59.6%	63.2%	0.0%	0.0%	12.3%	1.8%
Some Post	66.7%	48.5%	1.5%	1.5%	13.6%	0.0%
College Grad	45.9%	66.1%	0.0%	0.5%	9.3%	0.5%

22. Would you say that the number of these messages you have seen or heard in the past 30 days is more than usual, fewer than usual, or about the same as usual?

	More	Fewer	Same
Male	45.5%	2.4%	49.7%
Female	48.5%	1.8%	49.7%
UP/North	43.5%	4.3%	52.2%
W/SW	48.4%	3.1%	46.9%
Central	44.4%	2.2%	51.1%
Oakland	50.0%	0.0%	50.0%
Macomb	44.8%	3.4%	51.7%
Wayne	50.8%	0.0%	47.5%
Urban	49.2%	1.6%	47.6%
Suburban	43.0%	1.6%	53.9%
Small	44.4%	3.7%	51.9%
Rural	56.7%	1.7%	40.0%
White	47.8%	2.0%	49.0%
Black	65.9%	0.0%	34.1%
<20,000	66.7%	0.0%	33.3%
20-40,000	40.9%	4.5%	54.5%
40-70,000	52.3%	1.5%	44.6%
70-100,000	48.7%	2.6%	47.4%
+100,000	43.3%	1.0%	54.6%
<High	50.0%	0.0%	50.0%
High Grad	53.3%	0.0%	46.7%
Some Post	39.7%	2.7%	56.2%
College Grad	47.7%	2.5%	48.2%

23. Do you recall seeing or hearing the slogan “Stop Overdoses” in the past thirty days?

	Yes	No
Male	16.8%	80.4%
Female	20.0%	77.6%
UP/North	12.3%	83.1%
W/SW	18.4%	78.6%
Central	13.7%	84.2%
Oakland	13.8%	84.6%
Macomb	20.5%	77.3%
Wayne	32.6%	65.2%
Urban	25.5%	72.4%
Suburban	13.5%	83.2%
Small	21.2%	75.4%
Rural	18.1%	80.9%
White	14.6%	82.3%
Black	33.3%	66.7%
<20,000	46.7%	53.3%
20-40,000	30.0%	70.0%
40-70,000	20.4%	76.7%
70-100,000	7.3%	89.1%
+100,000	13.6%	84.1%
<High	40.0%	60.0%
High Grad	30.1%	64.5%
Some Post	19.0%	78.1%
College Grad	14.1%	84.2%



Statewide Opioid Assessment: Michigan

Identify, Prevent, and Manage Substance Use Disorders

Informed decision making for early intervention and improved outcomes

March 29, 2018

Michigan Collaborates with Appriss Health with New Tool in the Fight Against the Opioid Crisis



*The Michigan Department of Licensing and Regulatory Affairs (LARA) is one of the first state government agencies in the nation to utilize this new tool recently developed by Appriss Health in the fight against the opioid crisis; Appriss Health's **Statewide Opioid Assessment**.*

The Methods

- To apply this tool, Michigan provided three years of well-documented cases of unintentional overdose deaths, which Appriss Health linked to five years of prescription records in the state's prescription drug monitoring program (PDMP), the Michigan Automated Prescription System (MAPS). More than 7.5 million patients receiving 103.2 million prescriptions over the five years of PDMP history were linked to 5,261 overdose deaths.

The Value

- Using Appriss Health's Statewide Opioid Assessment, lawmakers and local community leaders can tailor laws, target resources, and design innovative programs to best address the opioid crisis in Michigan. This solution, along with other extensive collaborations underway between Michigan and Appriss Health, demonstrate the aggressive commitment of both entities to impact the opioid crisis in the state.

Appendix #3:

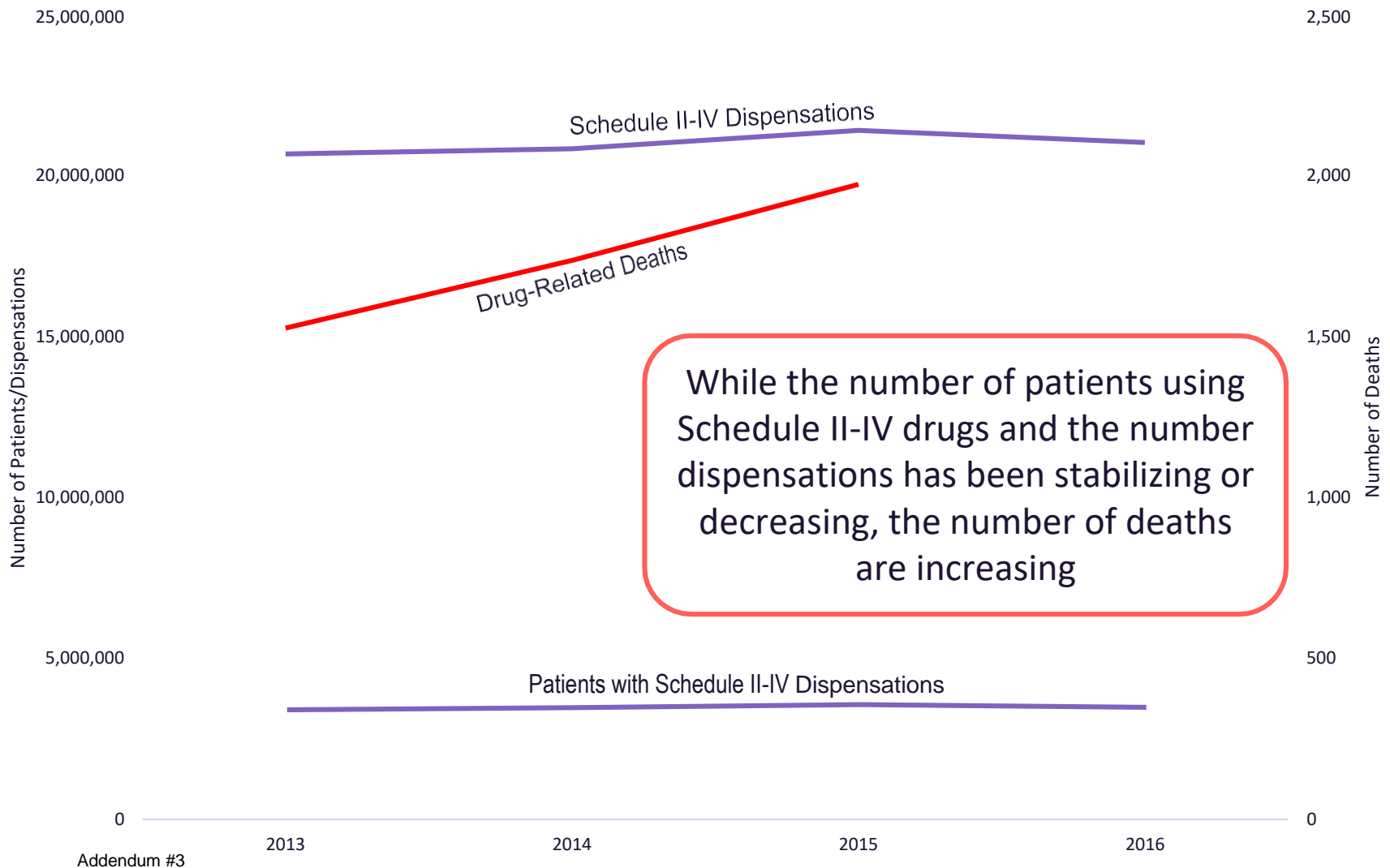
Michigan Collaborates with Appriss Health with New Tool in the Fight Against the Opioid Crisis



Statewide Opioid Assessment

- Appriss Health's Statewide Opioid Assessment provides state PDMP administrators valuable information on trends and patterns on a state's opioid usage. The Assessment examines patient-level and aggregate trends of controlled-substance prescriptions and overdose deaths within the state. Together, these statistics provide powerful insights into specific prescribing trends and risk factors for overdose death and helps identify communities most affected by the opioid epidemic.
- Michigan was one of the first states in the country to provide all PDMP users in the state access to NarxCare. NarxCare is a substance use disorder prevention and management platform developed by Appriss Health that includes an Overdose Risk Score, which predicts overdose death. The combination of the Statewide Opioid Assessment and the Overdose Risk Score contained in NarxCare both enables state administrators, policy makers, and public health officials to understand trends and over 150,000 providers to quickly assess a patient's PDMP history and risk of overdose death at a glance.

Prescription Drug Crisis in Michigan



Source: Michigan PDMP 2013-2016 and Michigan 2013-2015 all state-recorded drug-overdose deaths.

Michigan

PDMP October 23, 2012 - October 23, 2017
and
Drug-Related Deaths 2013-2015

General Statistics

Michigan PDMP Data for Prescriptions Written and Medications Dispensed between 2012 and 2017 Drug-Related Deaths between 2013 and 2015

	N	%
Patients	7,575,033	
Patients Who Died (Drug-Related) ¹	5,261	0.09
Patients With History of Receiving an Opioid Narcotic (including MAT)	6,414,174	84.68
Patients With History of Receiving a Sedative	2,849,423	37.62
Patients With History of Receiving Buprenorphine MAT Medication ²	72,780	0.96
Providers³	173,900	
Dispensations	103,214,576	
Dispensations of Opioid Narcotics	53,288,783	51.63
Dispensations of Sedatives	31,028,518	30.06
Prescriptions	84,855,880	
Prescriptions for Opioid Narcotics	47,731,852	56.25
Prescriptions for Sedatives	20,954,308	24.69
National Drug Codes (NDCs)	6,994	
NDCs for Opioid Narcotics	2,646	37.83
NDCs for Sedatives	1,663	23.78

Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017 and Michigan 2013-2015 drug-related deaths

Abbreviations: MAT: Medication-Assisted Treatment

Note: DEA number used to identify unique prescribers

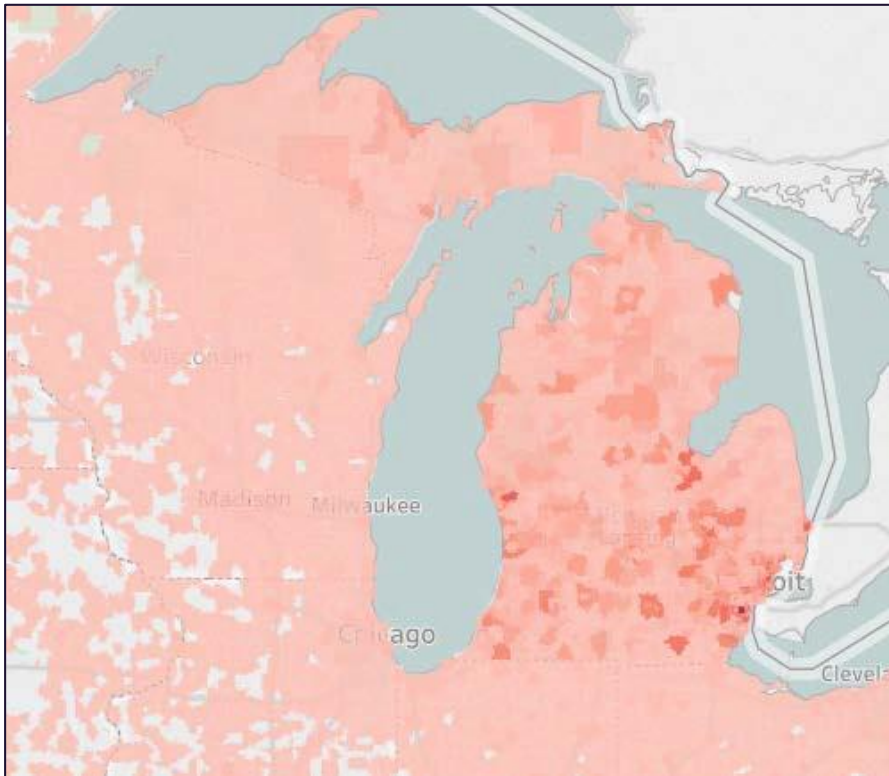
¹Number of deaths are only deaths from 2013-2015 identified by the state of Michigan as drug-related regardless of whether the individual was linked to a PDMP prescription. The denominator is the number of patients with a prescription during 2013-2015 (N=5,903,135).

²Buprenorphine Medication Assisted Therapy (MAT) includes all medication dispensations for NDCs falling under specific Generic Code Numbers (GCNs), including off-label use.

³Providers may have more than one DEA registration number.

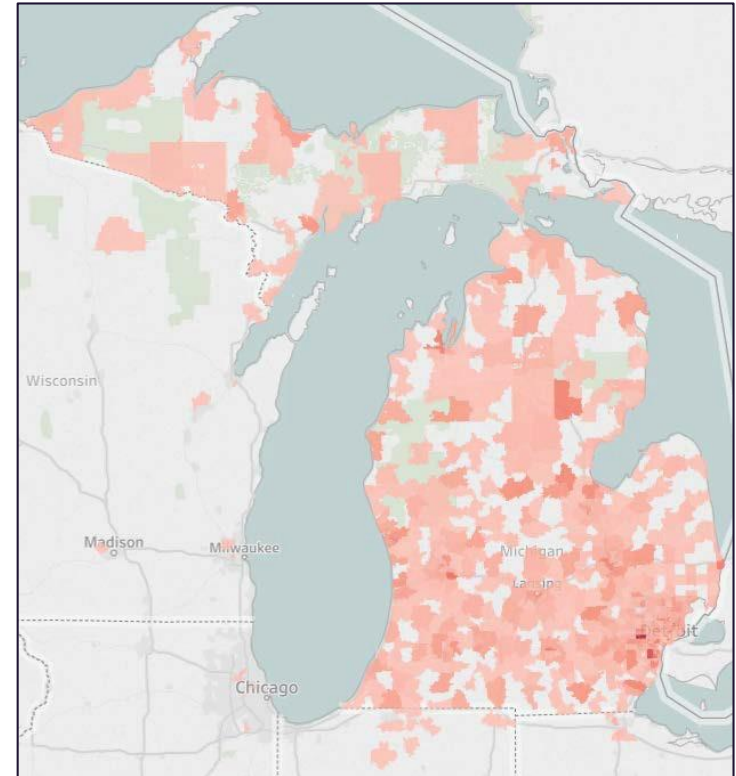
Narcotic and Sedative Prescription Volume by Location

By Patient Zip Code



Darker colors represent higher prescription volumes

By Dispenser Zip Code



Only includes dispensers with at least 20 fills

- 96.7% of patients in the PDMP database have Michigan addresses
- 3.3% of patients have addresses in other states
- The majority (89.9%) of dispensers are located in Michigan

Addendum #3

Patient Characteristics

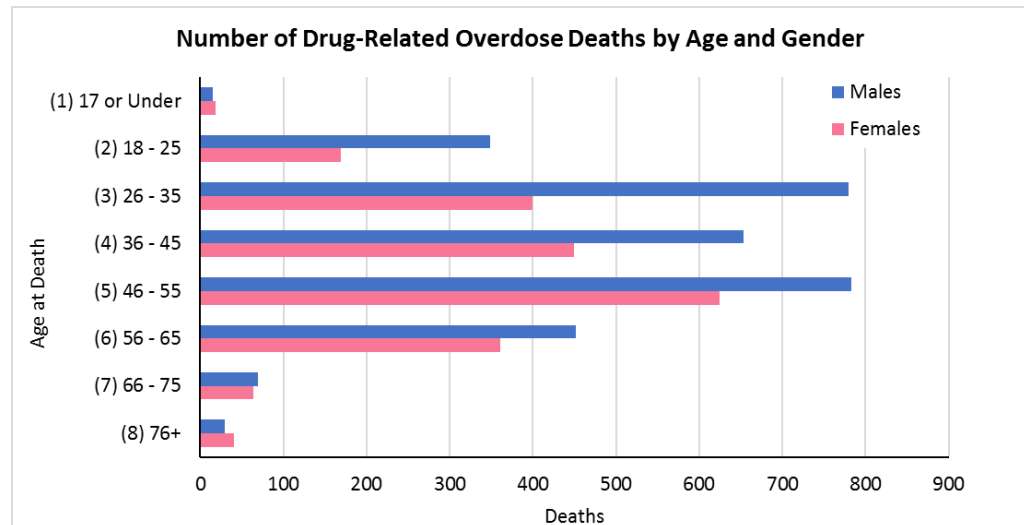
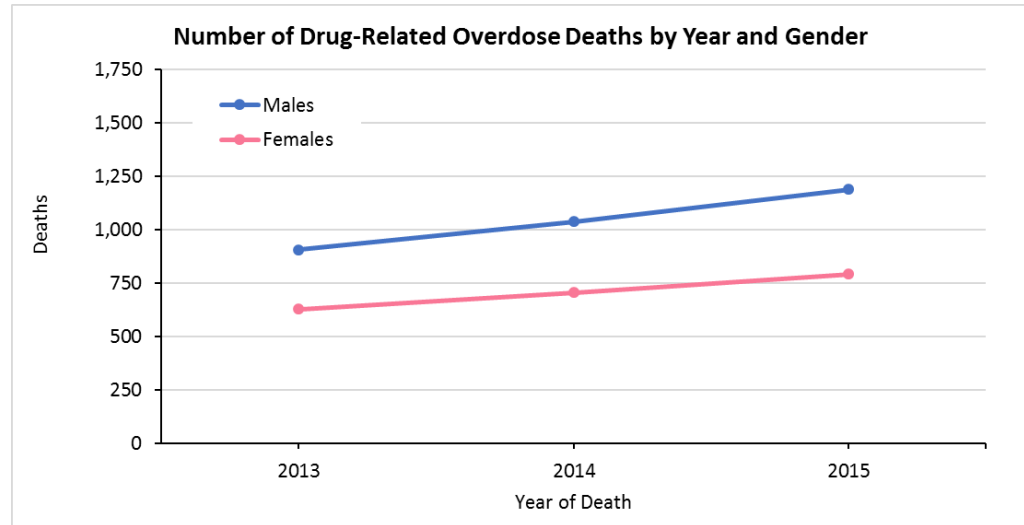
Death Data



There were 30% more drug-related overdose deaths in 2015 than in 2013

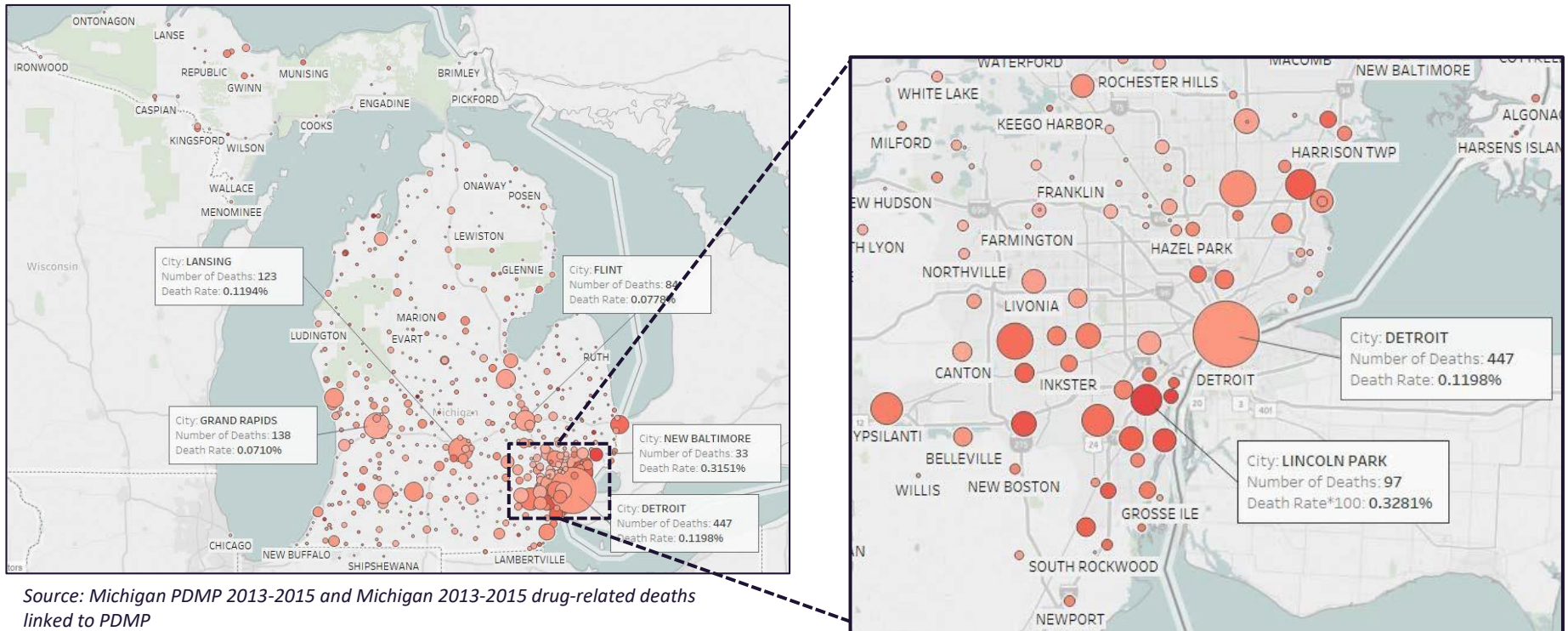
The largest number of drug-related overdose deaths occurred among men aged 26-35 and men aged 46-55

Among women, the largest number of drug-related overdose deaths were in the 46-55 age group



Death Rates by Location

By City



- Lincoln Park and Ecorse have the highest drug-related death rates
- Detroit and Grand Rapids have the most drug-related deaths

Top 10 Cities by Drug-Related Overdose Death Rate

City	Deaths per 1,000 Patients	Deaths
LINCOLN PARK	3.281	97
ECORSE	3.168	23
NEW BALTIMORE	3.151	33
ROMULUS	2.828	65
WYANDOTTE	2.770	55
WOODHAVEN	2.679	25
ROSEVILLE	2.603	92
FLAT ROCK	2.523	34
SOUTHGATE	2.519	58
WAYNE	2.456	37
MOUNT CLEMENS	2.365	29

Top 10 Cities by Number of Drug-Related Overdose Deaths

City	Deaths per 1,000 Patients	Deaths
DETROIT	1.198	447
GRAND RAPIDS	0.710	138
WESTLAND	2.206	133
WARREN	1.374	131
LANSING	1.194	123
TAYLOR	2.154	104
YPSILANTI	1.791	103
LINCOLN PARK	3.281	97
ROSEVILLE	2.603	92
FLINT	0.778	84
BATTLE CREEK	1.213	79

Top 10 Cities by Drug-Related Overdose Death Rate

City	Deaths per 1,000 Patients	Deaths
WYANDOTTE	1.243	14
PORT HURON	1.142	21
ROSEVILLE	1.110	22
LINCOLN PARK	1.086	18
WESTLAND	1.069	35
ROMULUS	0.868	11
TAYLOR	0.705	19
YPSILANTI	0.658	20
DEARBORN HEIGHTS	0.618	12
BAY CITY	0.605	15

Top 10 Cities by Number of Drug-Related Overdose Deaths

City	Deaths per 1,000 Patients	Deaths
DETROIT	0.418	88
WESTLAND	1.069	35
WARREN	0.586	31
LANSING	0.502	29
GRAND RAPIDS	0.233	24
KALAMAZOO	0.418	23
ROSEVILLE	1.110	22
PORT HURON	1.142	21
FLINT	0.337	21
YPSILANTI	0.658	20

Addendum #3

Source: Michigan PDMP 2013 and Michigan 2013 drug-related deaths linked to PDMP
 Note: Limited to cities with at least 10 deaths in 2013.

Top 10 Cities by Drug-Related Overdose Death Rate

City	Deaths per 1,000 Patients	Deaths
HAMTRAMCK	1.359	12
ROSEVILLE	1.324	27
SOUTHGATE	1.146	15
ROMULUS	1.087	14
LINCOLN PARK	1.043	18
PORT HURON	0.971	18
TAYLOR	0.790	22
YPSILANTI	0.770	24
WESTLAND	0.767	26
DEARBORN HEIGHTS	0.699	14

Top 10 Cities by Number of Drug-Related Overdose Deaths

City	Deaths per 1,000 Patients	Deaths
DETROIT	0.483	102
WARREN	0.613	33
LANSING	0.516	30
GRAND RAPIDS	0.273	29
ROSEVILLE	1.324	27
WESTLAND	0.767	26
YPSILANTI	0.770	24
SAGINAW	0.479	23
TAYLOR	0.790	22
FLINT	0.327	21

Addendum #3

Source: Michigan PDMP 2014 and Michigan 2014 drug-related deaths linked to PDMP
Note: Limited to cities with at least 10 deaths in 2014.

Top 10 Cities by Drug-Related Overdose Death Rate

City	Deaths per 1,000 Patients	Deaths
LINCOLN PARK	1.938	34
TAYLOR	1.293	37
ROMULUS	1.276	17
ROSEVILLE	1.246	26
WYANDOTTE	1.172	14
EASTPOINTE	1.155	16
WESTLAND	1.140	40
SOUTHGATE	1.100	15
PORT HURON	1.062	20
YPSILANTI	0.808	26

Top 10 Cities by Number of Drug-Related Overdose Deaths

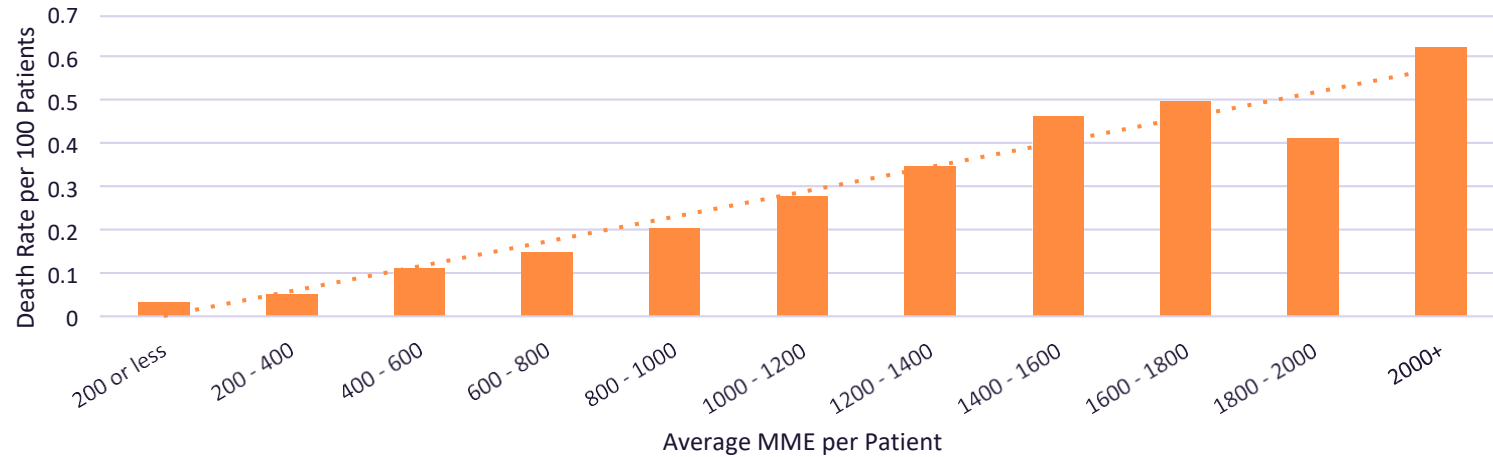
City	Deaths per 1,000 Patients	Deaths
DETROIT	0.650	140
WESTLAND	1.140	40
LANSING	0.653	39
GRAND RAPIDS	0.351	39
TAYLOR	1.293	37
LINCOLN PARK	1.938	34
WARREN	0.554	31
ROSEVILLE	1.246	26
YPSILANTI	0.808	26
BATTLE CREEK	0.645	25

Addendum #3

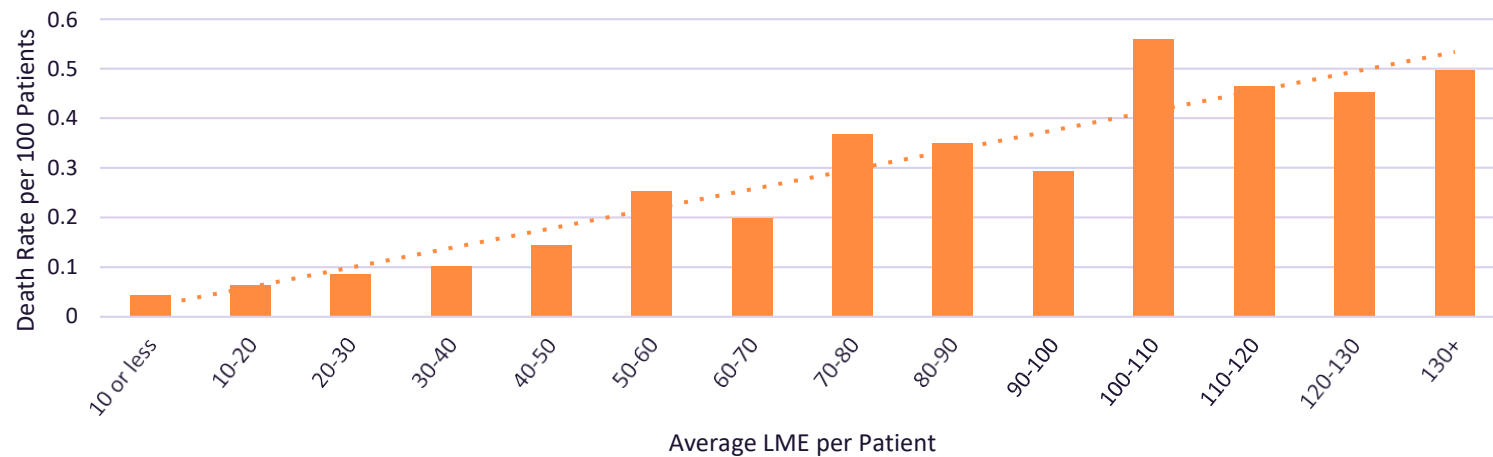
Source: Michigan PDMP 2015 and Michigan 2015 drug-related deaths linked to PDMP
Note: Limited to cities with at least 10 deaths in 2015.

Death Rate by Average MME/LME of Patients

Drug-Related Overdose Death Rate by Average Narcotic MME



Drug-Related Overdose Death Rate by Average Sedative LME



Addendum #3

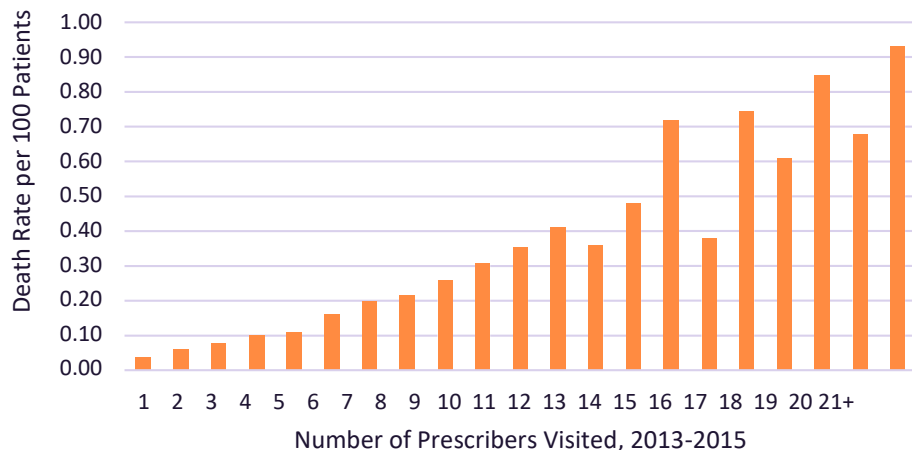
Source: Michigan PDMP Data 2013-2015 and Michigan 2013-2015 drug-related deaths linked to PDMP

Note: Narcotic MME excludes prescriptions classified as Buprenorphine MAT; MME= Number of Pills * Morphine Equivalent Units among Narcotic Prescriptions;

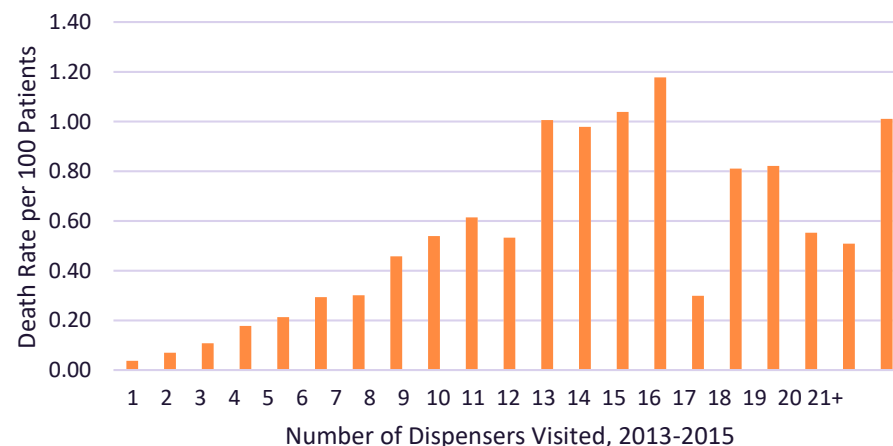
LME= Number of Pills * Lorazepam Equivalent Units among Sedative Prescriptions

Drug-Related Overdose Death Rates by Patient Behavior

Drug-Related Overdose Death Rate by Number of Prescribers Visited



Drug-Related Overdose Death Rate by Number of Dispensers Visited



1 out of every 100 patients visiting 21+ prescribers or 21+ dispensers between 2013 and 2015 died

Number of Dispensations by Drug Type

Drug Type	Number of Dispensations (N=103,214,576)		Total Patients ¹ (N=7,575,033)		Deaths ² (N=4,444)		Deaths per 1,000 Patients with a prescription ³
	n	%	n	%	n	%	
Narcotic ⁴	51,117,258	49.53%	6,391,737	84.38%	3366	75.74%	0.52
Buprenorphine MAT	2,171,525	2.10%	72,780	0.96%	380	8.55%	5.82
Sedative	31,028,518	30.06%	2,849,423	37.62%	2924	65.80%	0.97
Stimulant	14,934,746	14.47%	934,717	12.34%	508	11.43%	0.53
Neuropain	1,953,315	1.89%	201,248	2.66%	346	7.79%	1.96
Ginarcotic	373,205	0.36%	116,584	1.54%	64	1.44%	0.52
Steroid	949,011	0.92%	108,737	1.44%	61	1.37%	0.54
Cannabinoid	75,510	0.07%	22,669	0.30%	6	0.14%	0.36
Unassigned	44,431	0.04%	18,216	0.24%	0	0.00%	0.00
Anesthetic	2,006	0.00%	832	0.01%	0	0.00%	0.00
Other	565,074	0.55%	136,163	1.80%	19	0.43%	0.12

Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017 and Michigan 2013-2015 drug-related deaths linked to PDMP

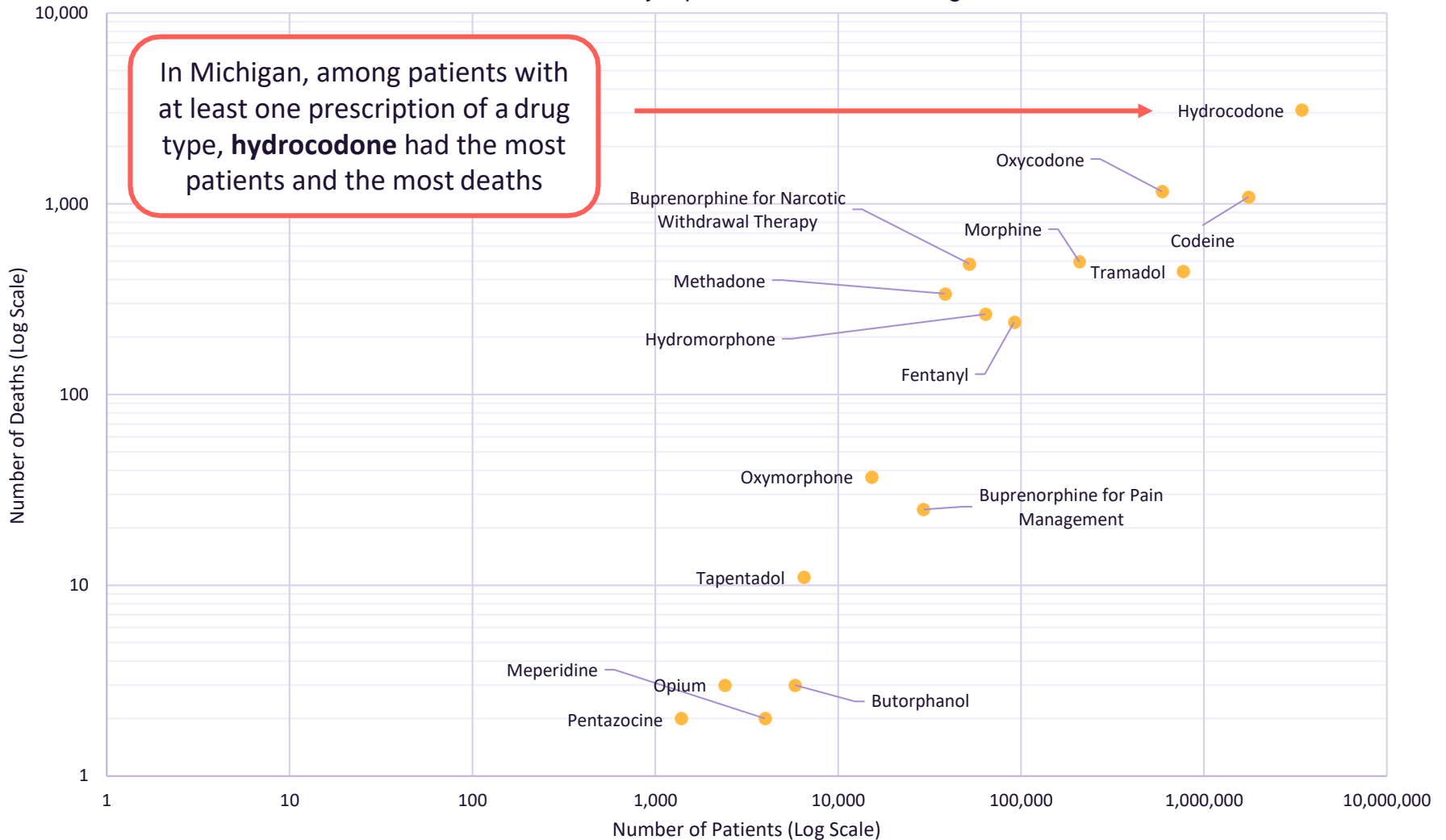
Abbreviations: MAT: Medication-Assisted Treatment

1. Patients=Total number of patients with at least one prescription for that drug type, Michigan PDMP Oct. 23, 2012-Oct. 23, 2017.
 2. Deaths=Number of drug-related overdose deaths that had a prescription of that drug type, 2013-2015 linked to PDMP; patients taking multiple drug types will be counted in each drug type category. 3. Drug-related overdose deaths per 1,000 patients with at least one prescription for that drug type in the year prior to death, 2014-2015 linked to PDMP. Only 2014/2015 deaths were included to ensure a full year of history in the PDMP. 4. Narcotic drug type excludes Buprenorphine MAT prescriptions.

While the largest proportion of deaths are associated with narcotic (75.7%) and sedative (65.8%) dispensations, the controlled substances with the highest death rates are those for buprenorphine MAT (5.82 deaths per 1,000 patients), neuropain (1.96 deaths per 1,000 patients), and sedatives (0.97 death per 1,000 patients).

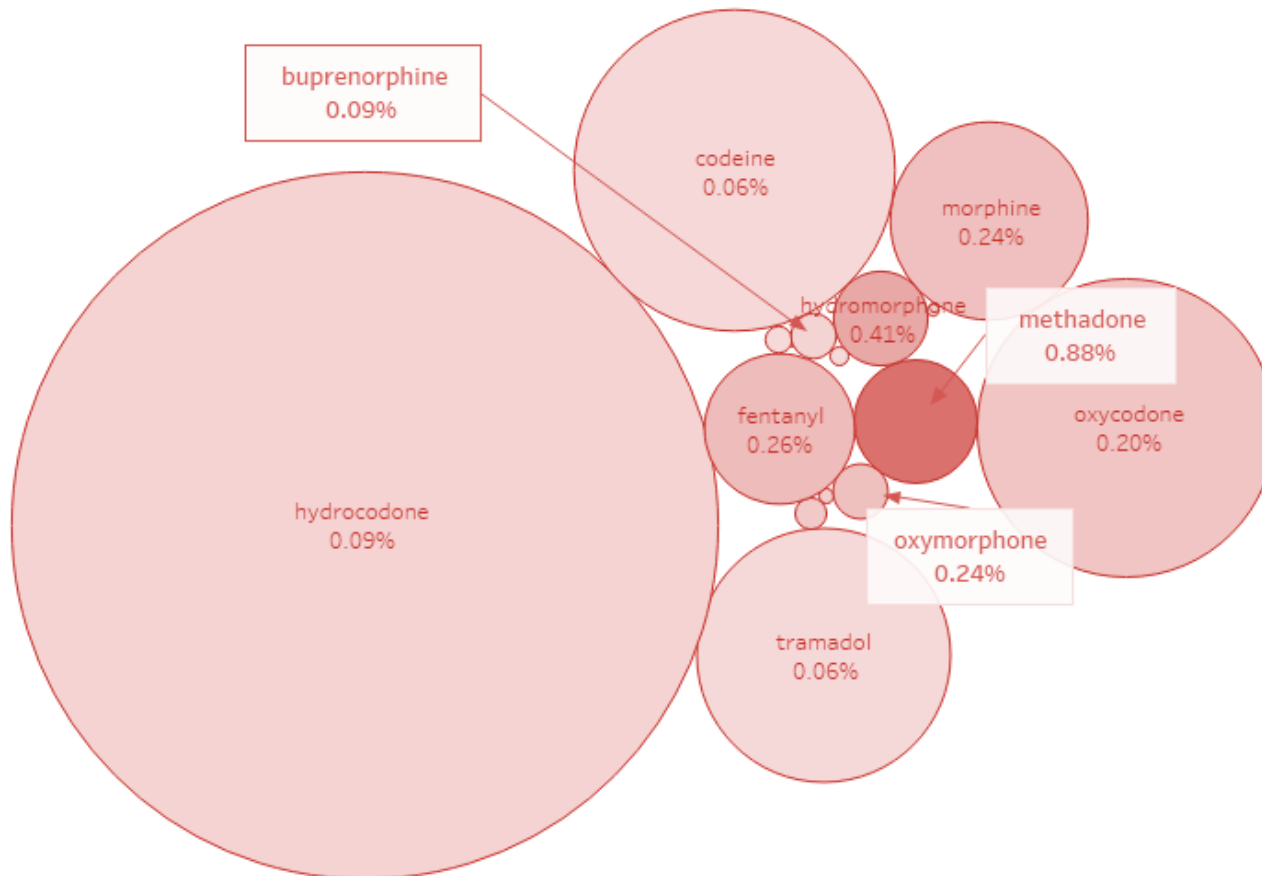
Drug-Related Overdose Deaths by Opioid Narcotic Active Ingredient

Patients and Deaths by Opioid Narcotic Active Ingredient



Addendum #3

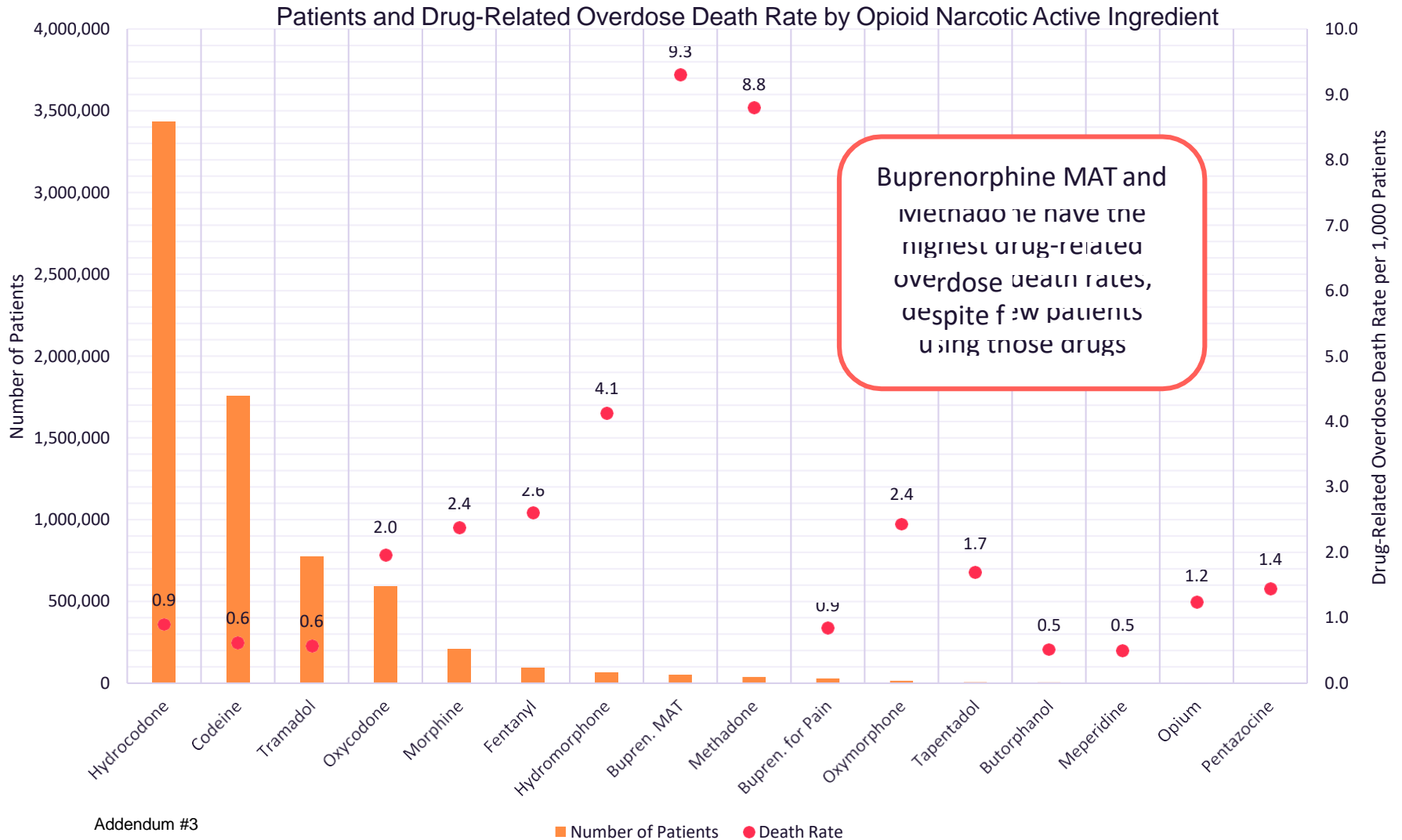
Drug-Related Overdose Deaths by Opioid Narcotic Active Ingredient



Highest death rates among patients who received at least one prescription of methadone (8.8 deaths per 1000 patients)

Size corresponds to proportion of prescriptions for that active ingredient type.
The buprenorphine category excludes Generic Sequence Numbers (GCN) for narcotic withdrawal therapy.
The darker the color, the higher the death rate.
Inscribed percent is the corresponding death rate.
Source: Michigan PDMP data (2013-2015) and Michigan drug-related death data (2013-2015) linked to PDMP

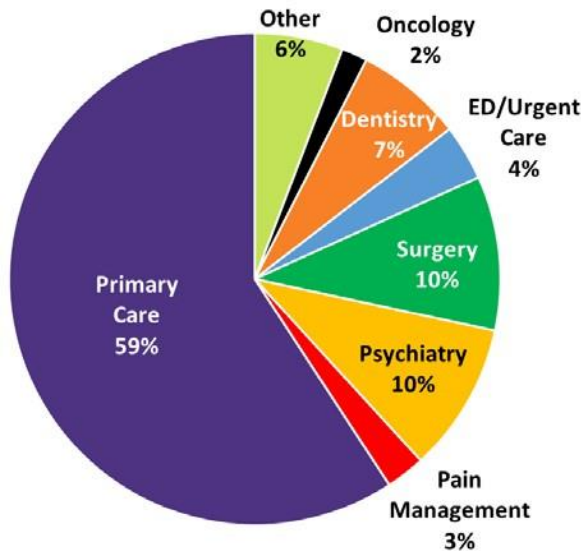
Deaths by Opioid Narcotic Active Ingredient



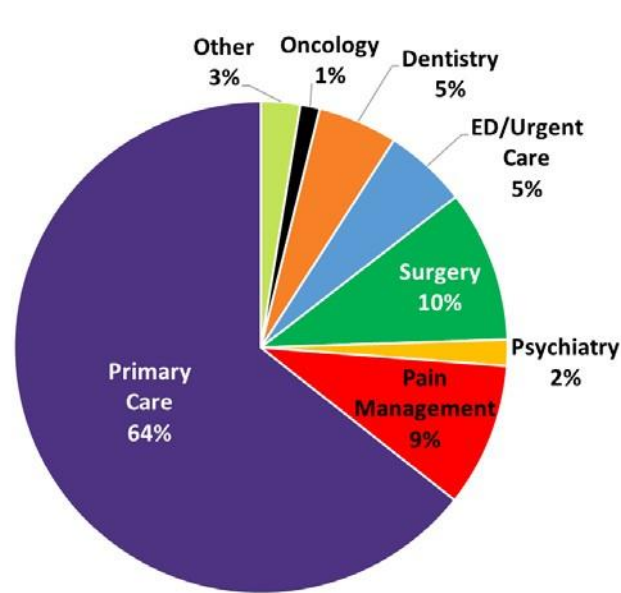
Addendum #3

Prescriber Characteristics

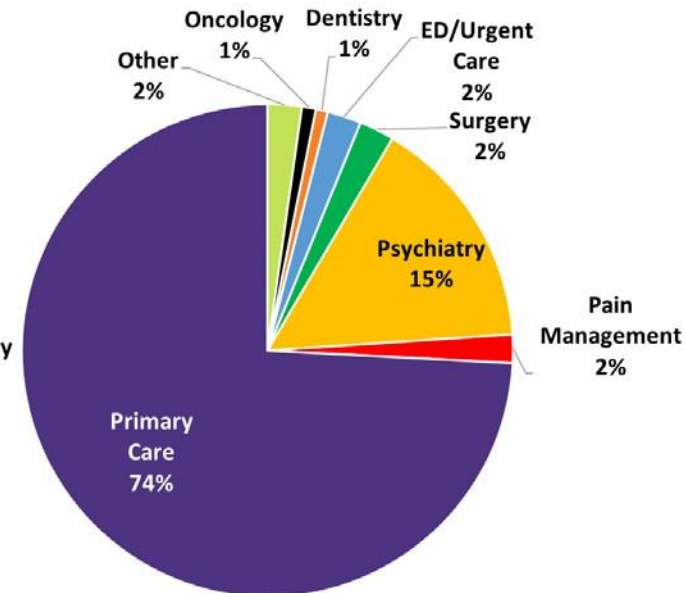
Prescriptions Written by Prescriber Specialty



Number of Prescribers by Specialty



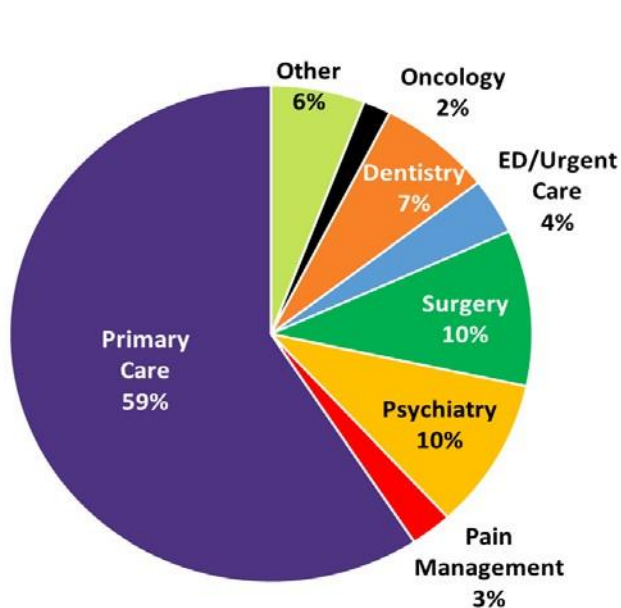
Number of Narcotic Prescriptions by Prescriber Specialty



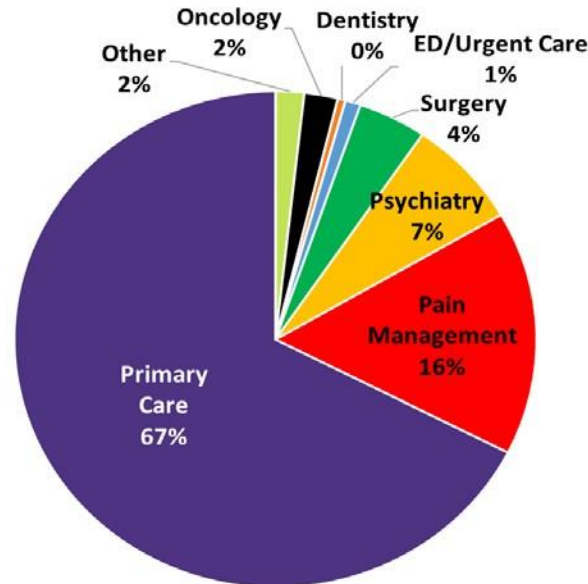
Number of Sedative Prescriptions by Prescriber Specialty

- 59% of prescribers are in **primary care**
- 9% of narcotic prescriptions are written by **pain management** prescribers (3% of all prescribers)
- 15% of sedative prescriptions are written by **psychiatry** prescribers (10% of all prescribers)

Morphine Milligram Equivalency (MME) by Prescriber Specialty



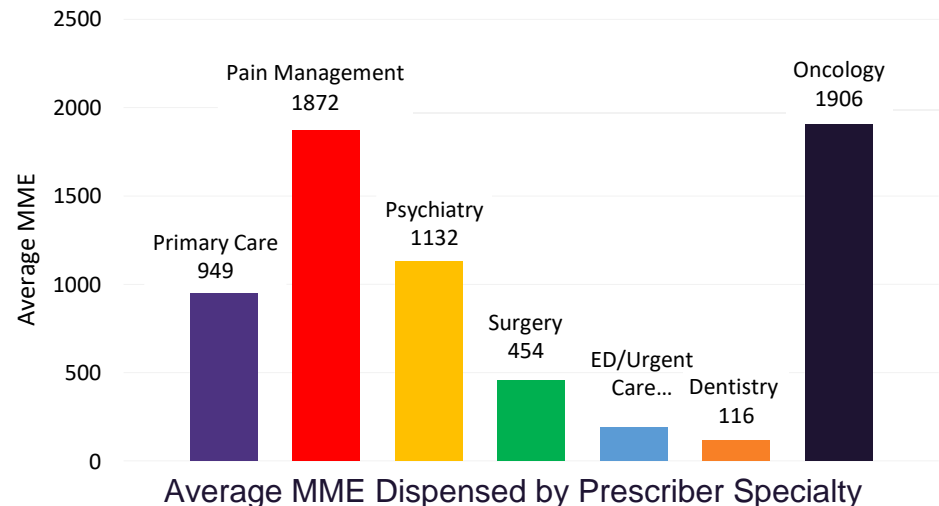
Number of Prescribers by Specialty



Aggregate MME of Prescription Fills by Prescriber Specialty

Pain management accounts for 16% of aggregate MMEs dispensed and the average MME per dispensation is 1.97 times that of primary care

Oncology's average MME per dispensation is twice that of primary care

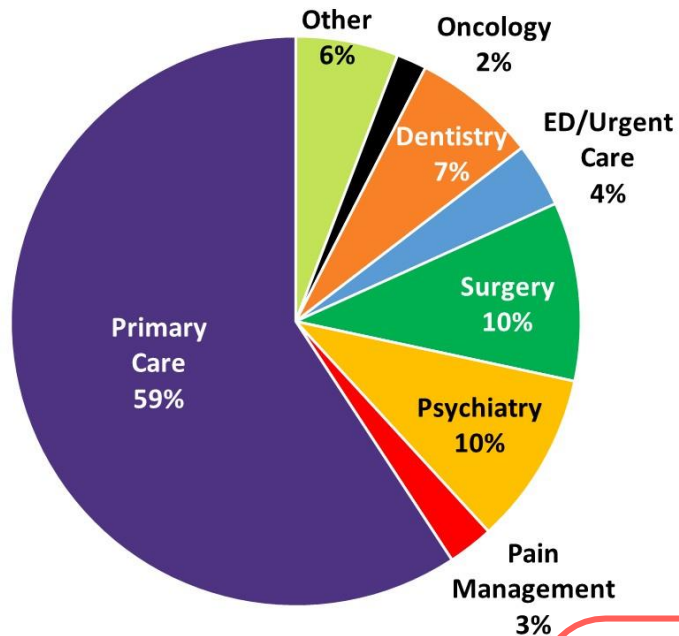


Average MME Dispensed by Prescriber Specialty

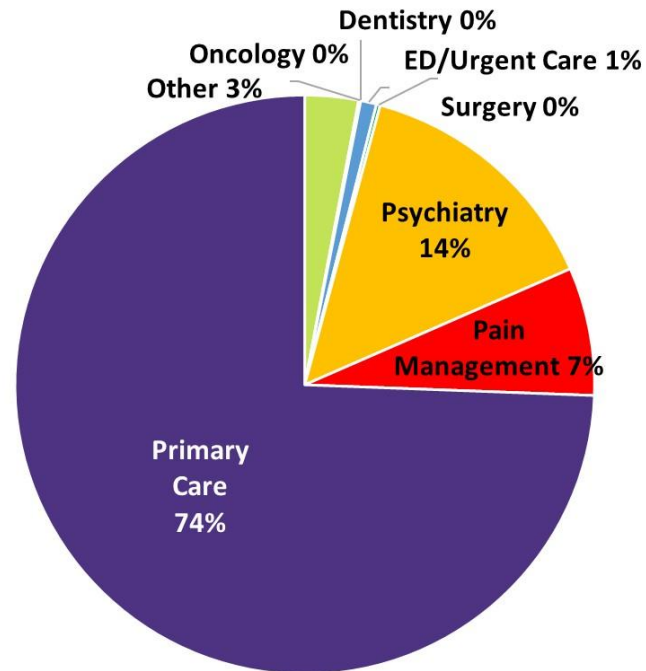
Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017 supplemented by NPPES NPI file
 Note: Narcotic prescriptions exclude prescriptions classified as Buprenorphine MAT. Prescribers are characterized by their primary specialty. Narcotic MME excludes prescriptions classified as Buprenorphine MAT; Excludes prescribers missing primary specialty classification; Other specialties include specialties not classified elsewhere; Addendum #3
 MME= Number of Pills * Morphine Equivalent Units among Narcotic Prescriptions

Buprenorphine MAT by Prescriber Specialty

Number of Prescribers by Specialty



Number of Buprenorphine MAT Prescriptions by Prescriber Specialty

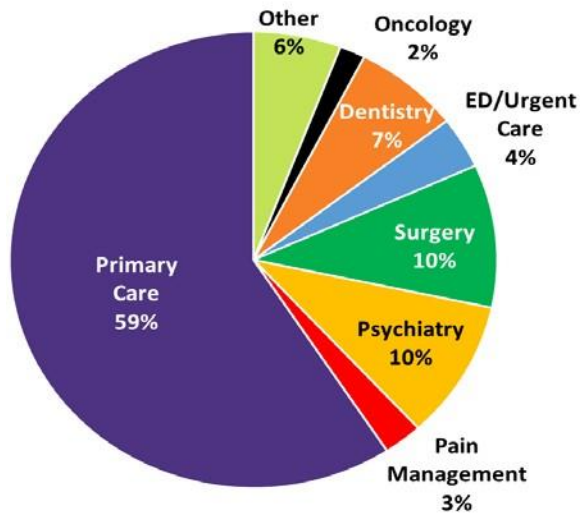


- 59% of prescribers are in **primary care**, but primary care writes 74% of the MAT prescriptions
- 7% of MAT prescriptions are written by **pain management** prescribers (3% of all prescribers)
- 14% of MAT prescriptions are written by **psychiatry** prescribers (10% of all prescribers)

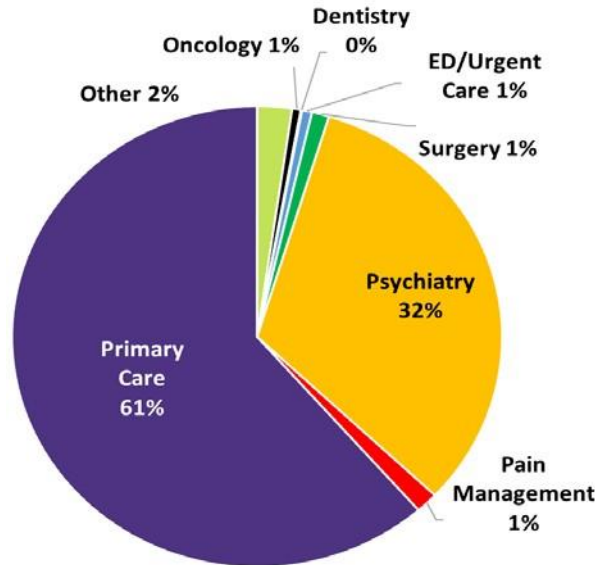
Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017 supplemented by NPPES NPI file

Note: Prescribers are characterized by their primary specialty. Excludes prescribers missing primary specialty classification. Other specialty includes specialties not classified elsewhere. Includes only prescriptions classified as Buprenorphine MAT. Buprenorphine Medication Assisted Therapy (MAT) includes all medication dispensations for NDCs falling under specific Generic Code Numbers (GCNs), including off-label use.

Lorazepam Milligram Equivalency (LME) by Prescriber Specialty

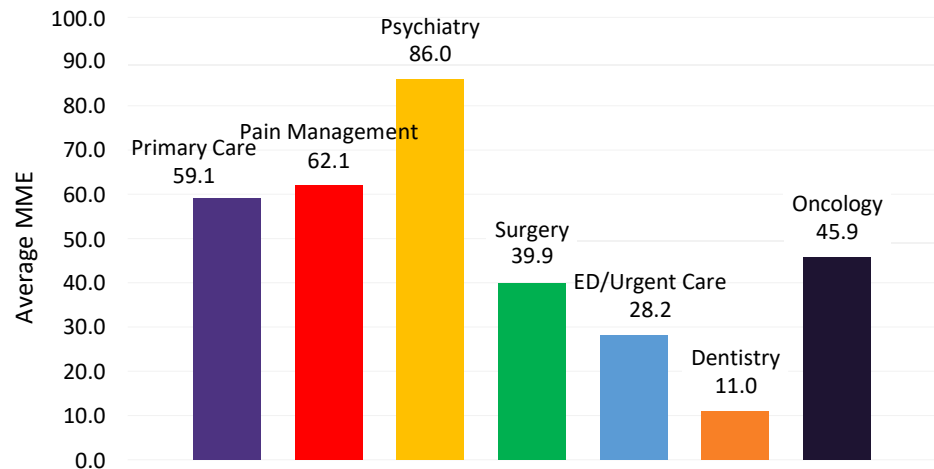


Number of Prescribers by Specialty



Aggregate LME of Prescription Fills by Prescriber Specialty

Psychiatry accounts for 32% of aggregate LMEs dispensed and the specialty's average LME per dispensation is 86.0 (1.46 times that of primary care)

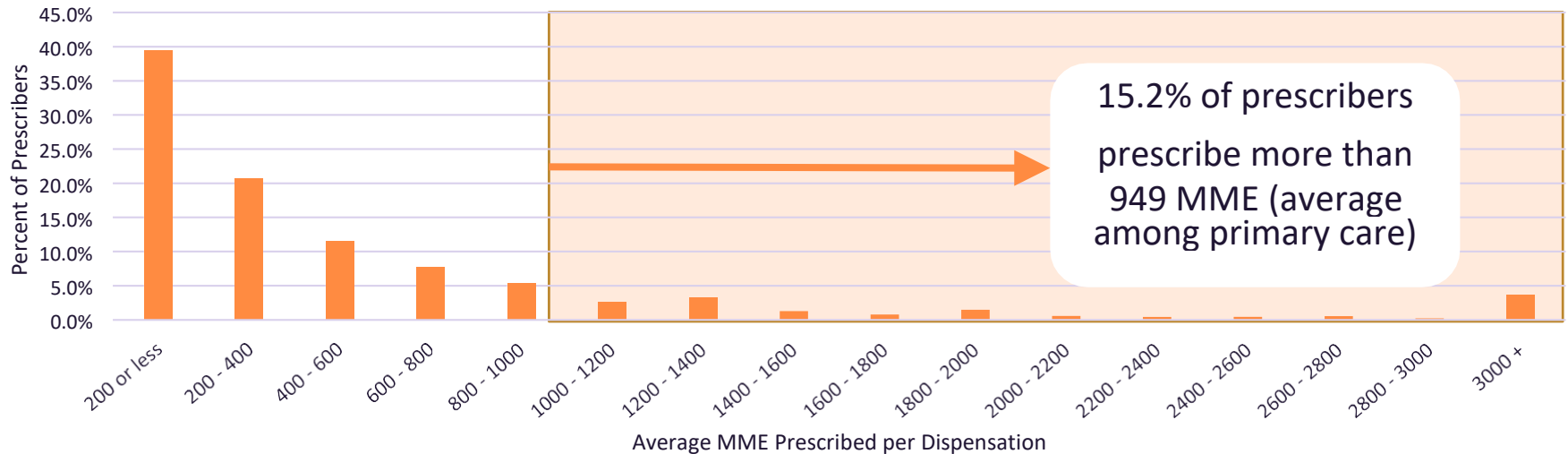


Average LME Dispensed by Prescriber Specialty

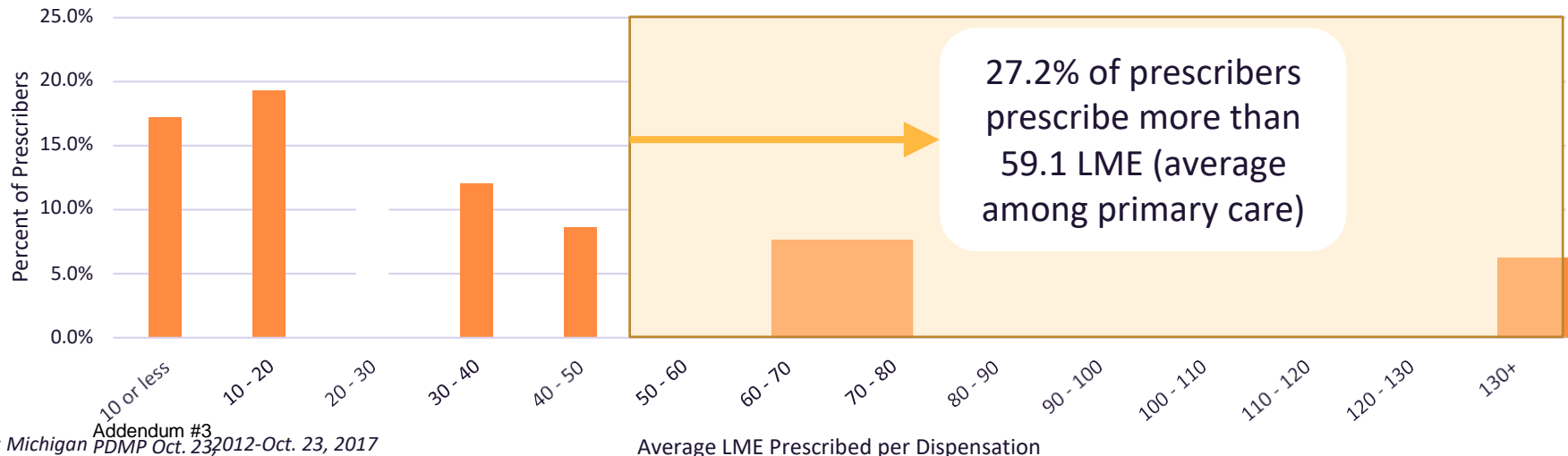
Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017 supplemented by NPPES NPI file
 Note: Excludes prescribers missing primary specialty classification
 Other specialty includes specialties not classified elsewhere
 LME= Number of Pills * Lorazepam Equivalent Units among Sedative Prescriptions

Distribution of Average MME/LME Prescribed

Distribution of Prescribers by Average Narcotic MME Prescribed



Distribution of Prescribers by Average Sedative LME Prescribed



Addendum #3

Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017

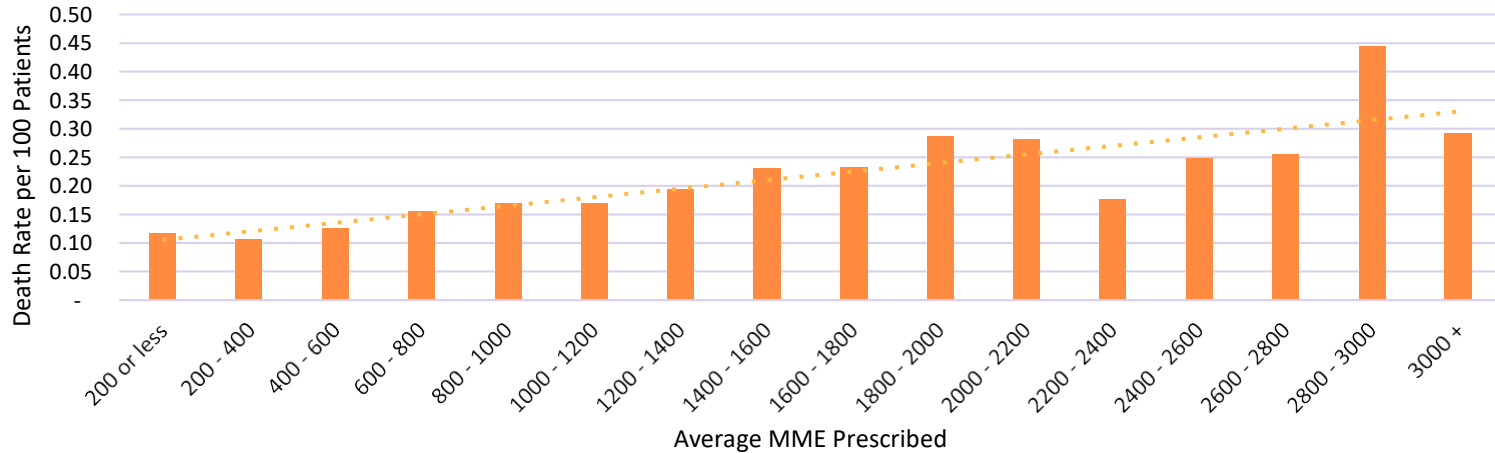
Note: Narcotic MME excludes prescriptions classified as Buprenorphine MAT; MME= Number of Pills * Morphine Equivalent Units among Narcotic Prescriptions;

LME= Number of Pills * Lorazepam Equivalent Units among Sedative Prescriptions

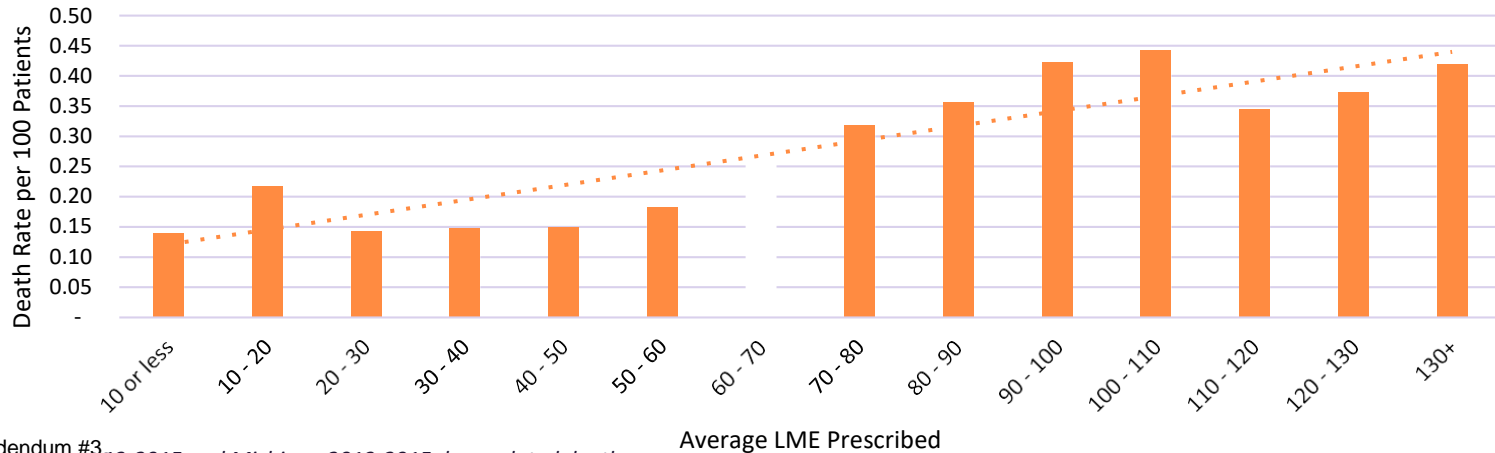
Drug-Related Overdose Death Rate by Average MME/LME of Prescribers



Drug-Related Overdose Death Rate by Average Narcotic MME of Prescribers



Drug-Related Overdose Death Rate by Average Sedative LME of Prescribers



Appendix #3

Source: Michigan PDMP Data 2013-2015 and Michigan 2013-2015 drug-related deaths

Note: Narcotic MME excludes prescriptions classified as Buprenorphine MAT; MME= Number of Pills * Morphine Equivalent

Units among Narcotic Prescriptions; LME= Number of Pills * Lorazepam Equivalent Units among Sedative Prescriptions

Vulnerable Subpopulations

Buprenorphine Medication-Assisted Treatment (MAT) Prescriptions and Deaths

- Patients with a MAT prescription are already being treated for opioid abuse, and are at higher risk of overdose death

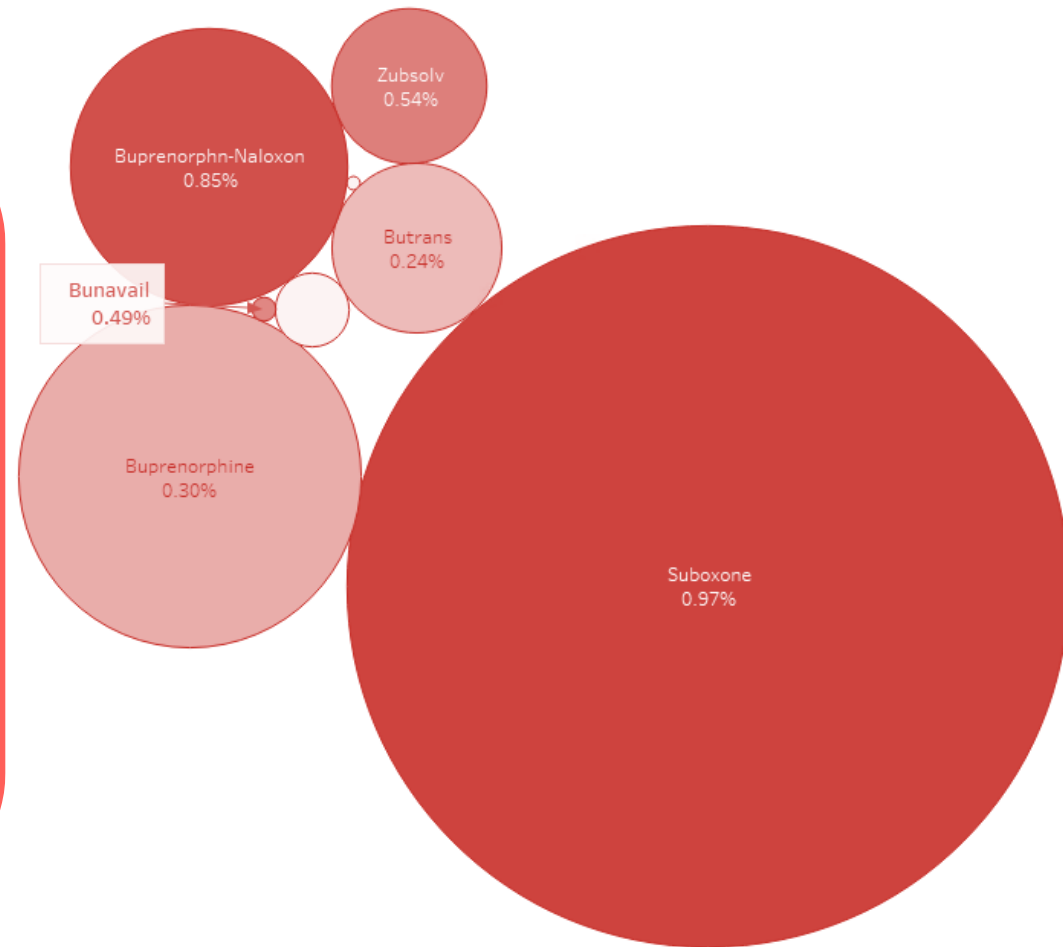
- Certain types of MAT have higher drug-related overdose death rates than others:

Suboxone

9.7 deaths per 1,000 patients

Buprenorphine-naloxone

8.5 deaths per 1,000 patients



Size corresponds to proportion of prescriptions for that active ingredient type.

The darker the color, the higher the death rate

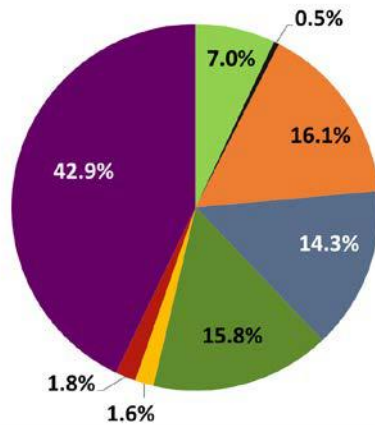
Source: Michigan Prescription Data (2013-2015) and Michigan drug-related death data (2013-2015) linked to PDMP.

Buprenorphine Medication Assisted Therapy (MAT) includes all medication dispensations for NDCs falling under specific Generic Code Numbers (GCNs), including off-label use.

First Narcotic Prescription and Future Use

First narcotic prescription is defined as the first prescription written in 2014 or later for patients who had no fills in 2013 or prior (N=3,586,184 patients)

Patients by Specialty of First Narcotic Prescriber

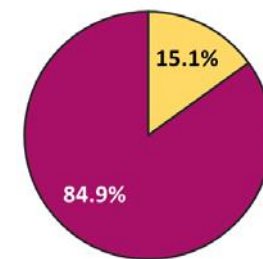


A large percentage of patients' first narcotic prescription are written in Surgery (15.8%), ED/Urgent Care (14.3%), and Dentistry (16.1%), though these specialties make up 10.2%, 3.6%, and 7.0% of prescribers, respectively

- Primary Care
- Pain Management
- Psychiatry
- Surgery
- ED/Urgent Care
- Dentistry
- Oncology
- Other

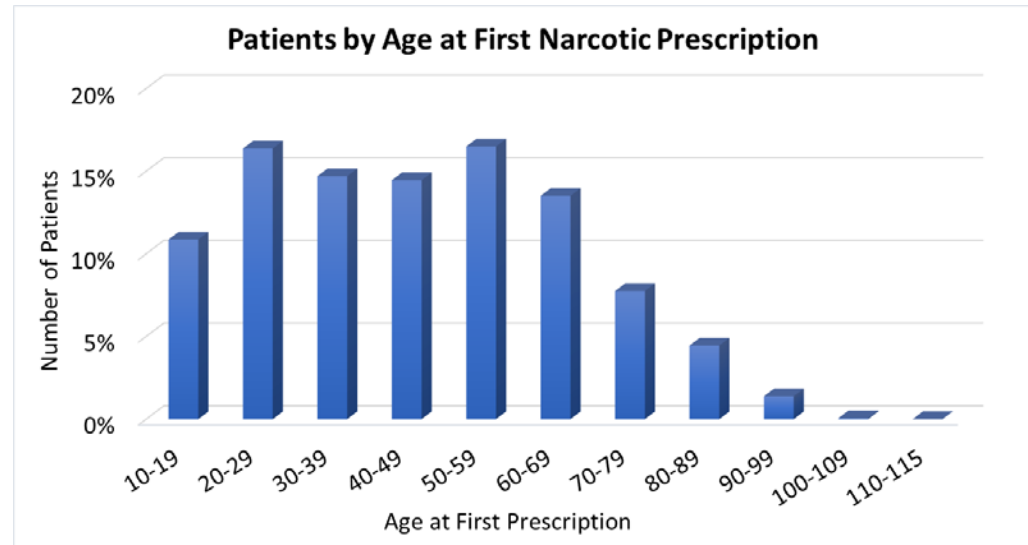
15.1% of patients are still filling narcotic prescriptions 6 months to 1 year after their first narcotic fill

Patients Filling Narcotic Prescriptions 6 to 12 months after First Narcotic Prescription Fill

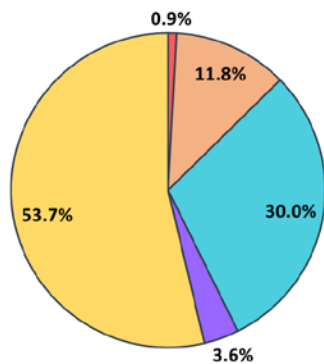


Patient Age at First Narcotic Prescription

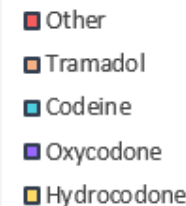
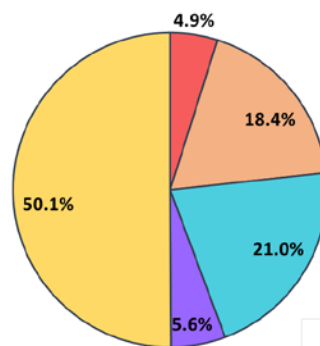
- 45.7 is the average age when patients are written their first narcotic prescription
- 10.9% of patients were first prescribed narcotics before the age of 20 and 27.2% before the age of 30



Patients Aged 19 or Younger by First Narcotic Medication Prescribed



Patients Aged 50 or Older by First Narcotic Medication Prescribed

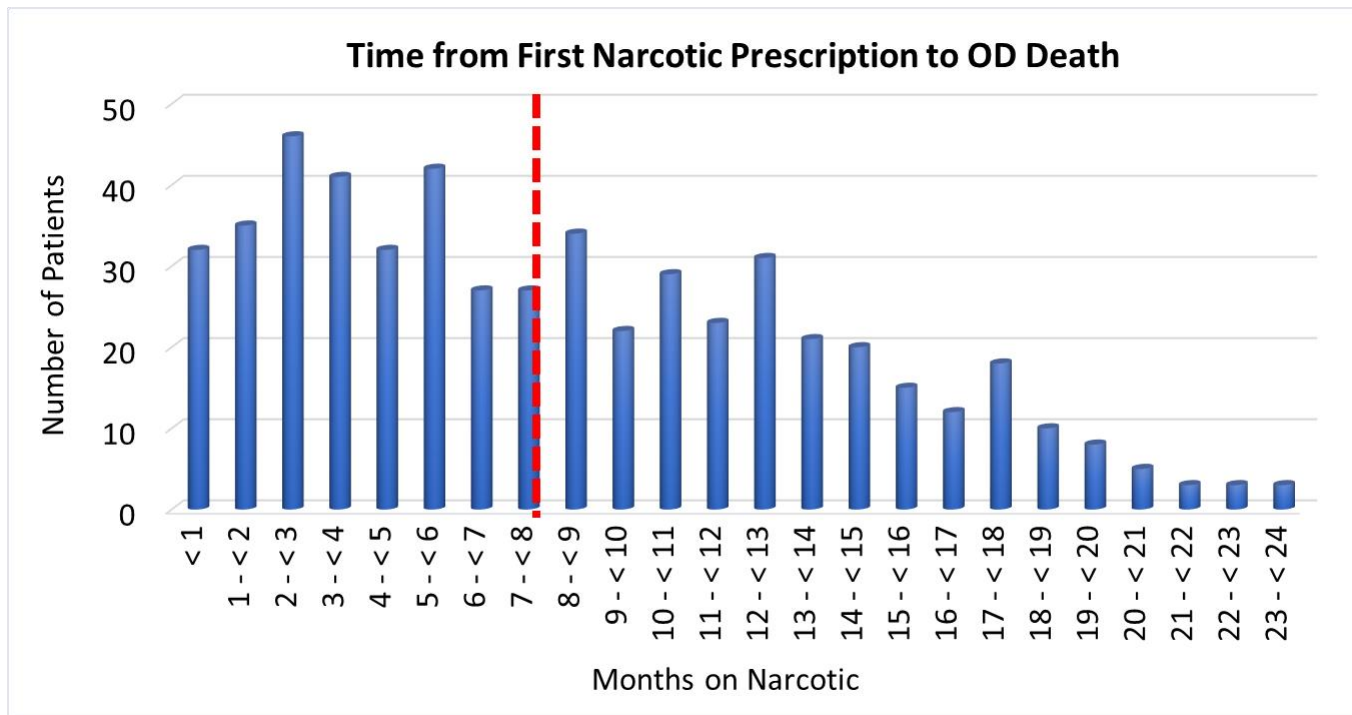


Younger patients (ages <20) are more likely to be prescribed codeine or hydrocodone as their first narcotic than older patients (ages 50+), who are more likely to be prescribed oxycodone, tramadol, or another narcotic

Source: Michigan PDMP Oct. 23, 2012-Oct. 23, 2017
 Addendum #3
 First narcotic prescriptions were written in 2014 or later; criteria used due to insufficient prescription data prior to 2013
 Excludes patients younger than 10 and older than 115 at their incident prescription.

Time from First Narcotic Prescription to OD Death

Among patients whose first narcotic prescriptions were written between 2014 and 2015, those who died of a drug overdose were prescribed narcotics for only 8 months prior to death, on average



Addendum #3

Source: Michigan PDMP 2013-2015 and Michigan drug-related death data (2013-2015) linked to PDMP
First narcotic prescriptions were written in 2014 or later; criteria used due to insufficient prescription data prior to 2013

The Overdose Risk Score (ORS)

Overview of Appriss' Overdose Risk Score



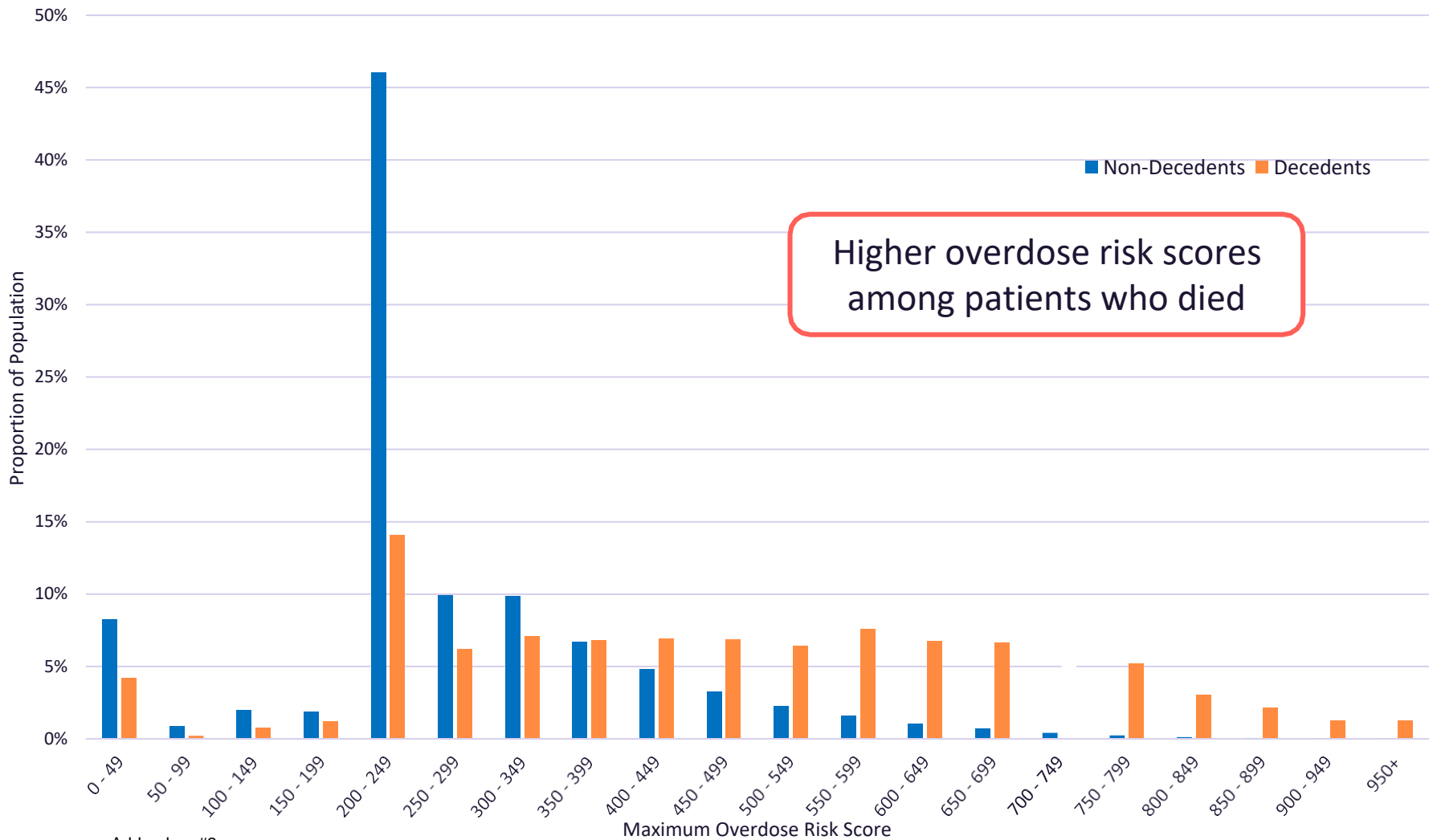
- Appriss has created a proprietary risk score that predicts the likelihood of a drug-related death, taking into account a variety of patient characteristics
- The risk score ranges from 0 to 999
- NarxCare is live today in these states: CT, OH, IN, VA, SC, MI, AZ, CO, NV, ID, WV, & NJ
- NarxCare contracts have been signed in these states and will be implemented soon: TX & PA

Overdose Risk Score Range	Odds Ratio (95% CI)
0-200	Ref.
201-300	1.70 (1.39, 2.06)
301-400	2.68 (2.22, 3.23)
401-500	5.28 (4.39, 6.35)
501-600	11.01 (9.18, 13.20)
601-700	30.20 (24.95, 36.56)
701-800	64.10 (51.97, 79.06)
801-900	55.61 (41.55, 74.43)
901-999	350.83 (211.89, 580.88)

350 times more likely to die of a drug-related death than people with an OD score less than 200

Note: Odds ratios are calculated using case-control sampling. Excludes decedents whose death was prior to 2015, as 2 years of prescription history data not available. For every death, 100 random controls are selected who had a prescription within the year preceding the date of death of the case. For both cases and controls, their maximum overdose risk score within that year period was taken as their exposure.

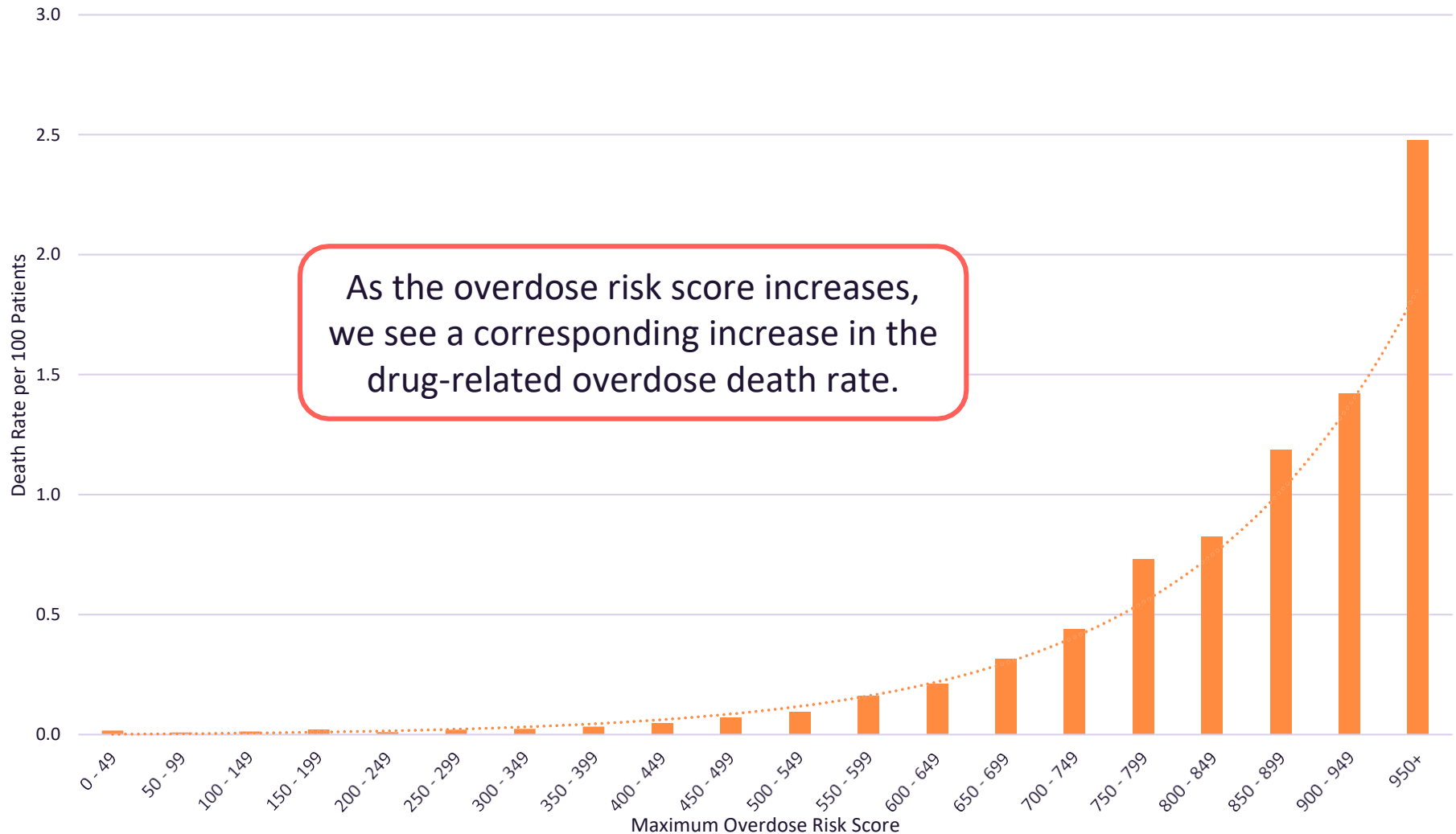
Overdose Risk Scores Distribution



Source: Michigan PDMP 2013-2015 and Michigan 2015 drug-related deaths

Note: Excludes decedents whose death was prior to 2015, because 2 years of prescription history data not available. Overdose Risk Score is the maximum over the entire PDMP history for that patient

Drug-Related Overdose Death Rate by Overdose Risk Scores

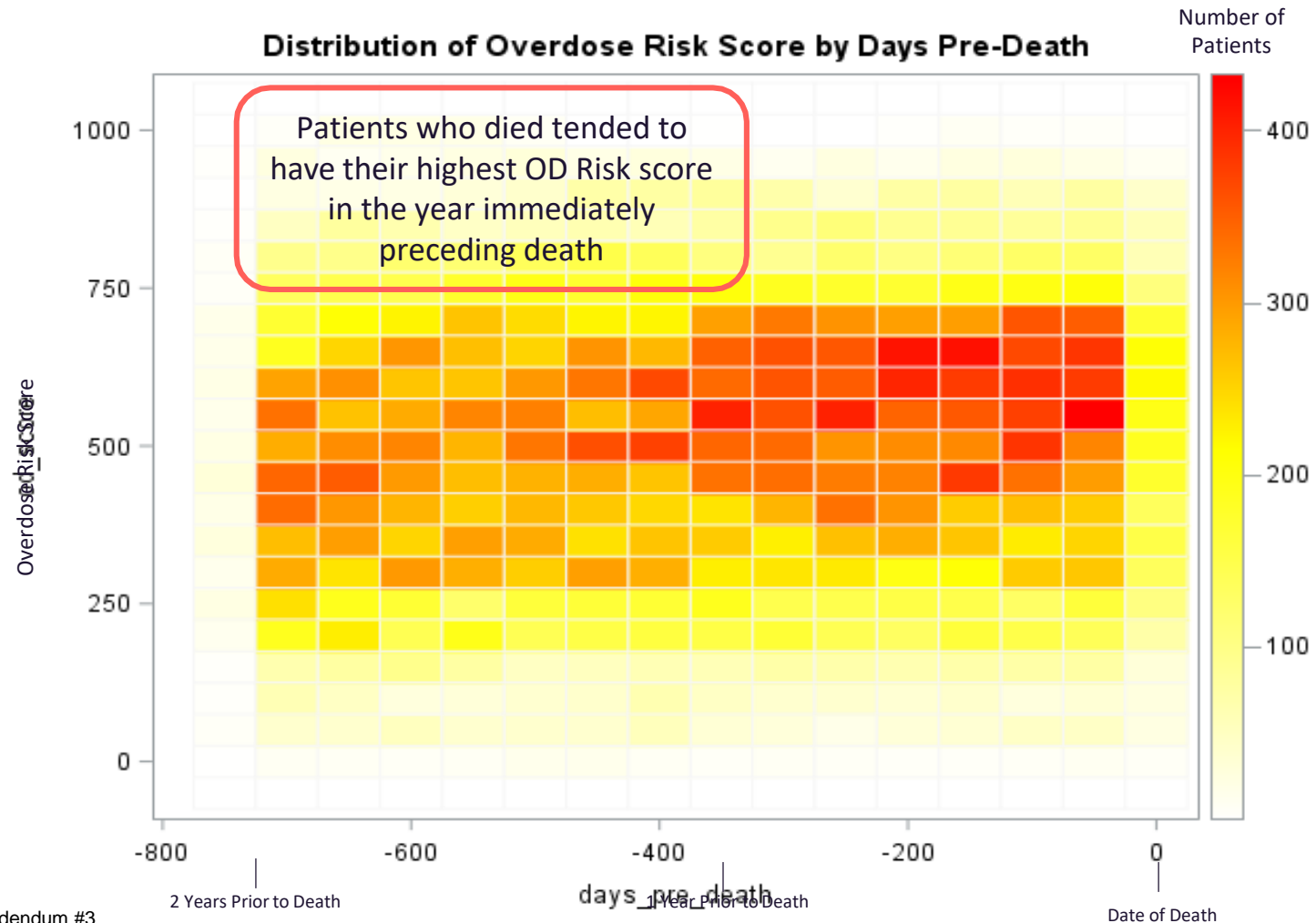


Source: Michigan PDMP 2013-2015 and Michigan 2015 drug-related deaths

Note: Excludes decedents whose death was prior to 2015, because 2 years of prescription history data not available. Overdose Risk Score is the maximum over the entire PDMP history for that patient

Overdose Risk Score Trends Prior to Death

Distribution of Overdose Risk Score Over Time
All 2015 Michigan Decedents

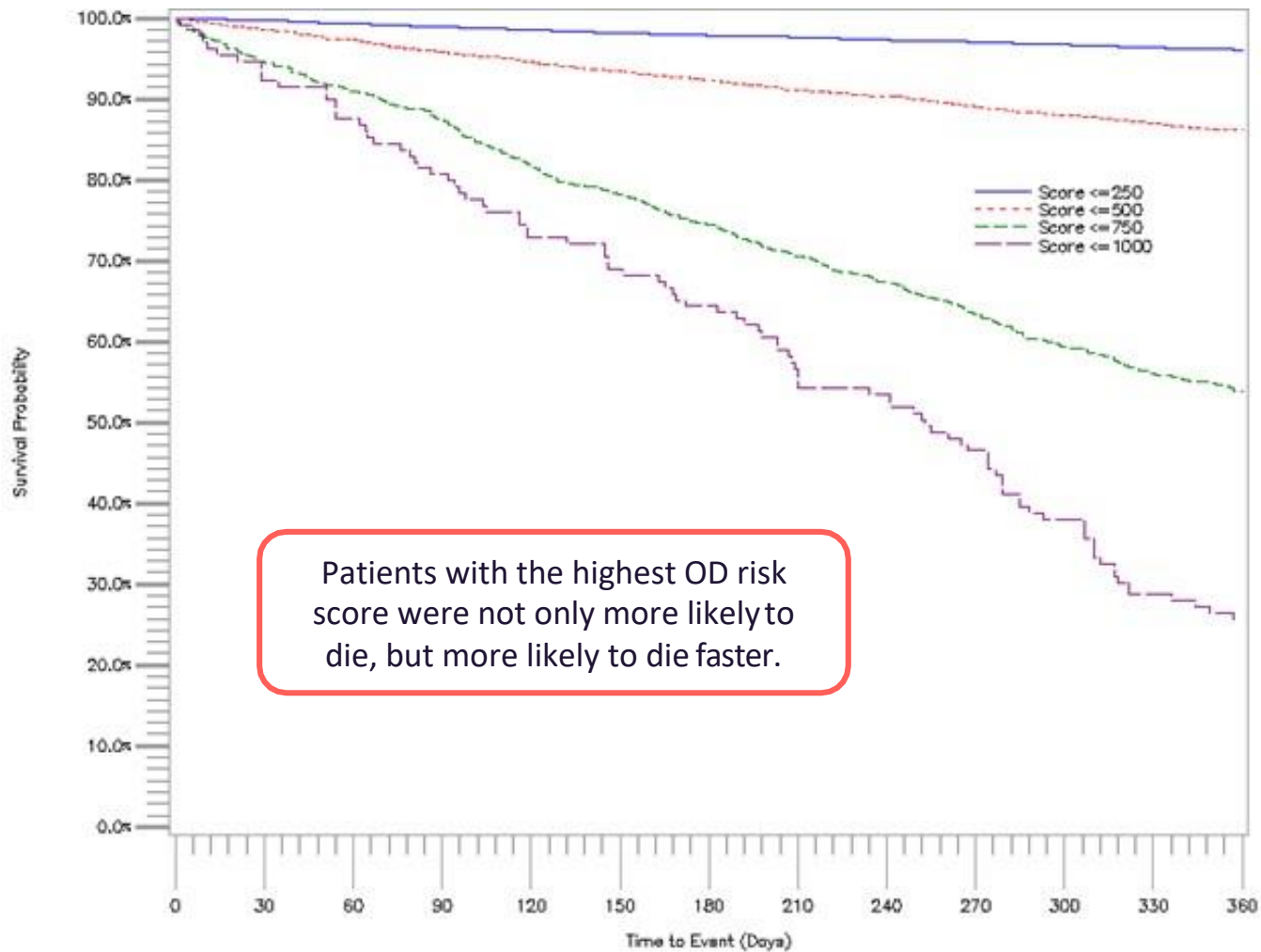


Addendum #3

Source: Michigan PDMP 2013-2015 and Michigan 2015 drug-related deaths
Note: Excludes decedents whose death was prior to 2015, because 2 years of prescription history data not available

Overdose Risk Score Kaplan-Meier Plot

Kaplan-Meier Plot Michigan 2015
(All Decedents and a Random Sample of 15,000 Non-Decedents)

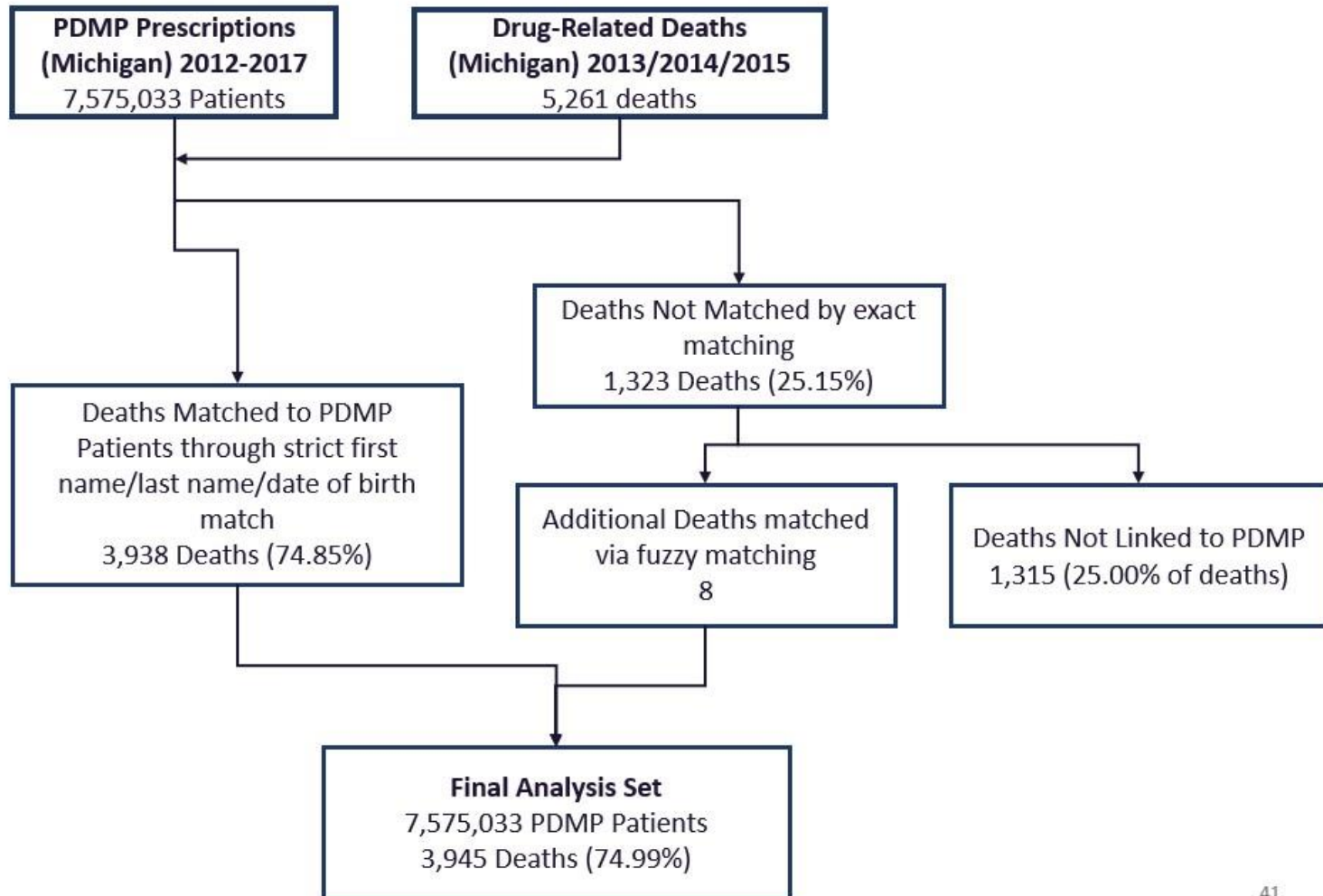


Patients with the highest OD risk score were not only more likely to die, but more likely to die faster.

Source: Michigan PDMP Oct. 23, 2012-Dec.31, 2014 and Michigan 2015 drug-related deaths
Note: Includes all decedents from 2015 and a random sample of 15,000 non-decedents. Day 0 is Jan 1, 2015. ODS Score is the last score calculated for each patient in 2014. Patients had to have had a fill during 2014.

Appendix

Michigan Drug-Related Deaths ('13, '14, '15) and PDMP Prescriptions October 23, '12 to October 23, '17



Acute Care Opioid Treatment and Prescribing Recommendations:

A Summary of Best Practices

These recommendations are to be used as a clinical tool, but they do not replace clinician judgment.

Dental

Pre-Procedure

- Opioid prescriptions should not be written prior to completing a dental procedure.
- Communicate a conservative philosophy by emphasizing the efficacy and appropriateness of over the counter medications' analgesic properties.
- Address dental pain through clinical intervention rather than opioid pain relief.
- Refer patients to a free or low-cost dental program in the absence of insurance or financial constraints.

Prescribing

- The prescription drug monitoring program (PDMP) must be accessed prior to prescribing controlled substances schedules 2-5, in compliance with Michigan law.
- Conduct full dental and medical history of the patient and include analysis of current medications.
- Identify any high-risk behaviors or diagnoses (previous substance use disorders, alcohol or tobacco use, psychiatric comorbidities including depression or anxiety).
- Non-opioid therapies (e.g., acetaminophen, ibuprofen) should be encouraged as the primary treatment.
- Non-pharmacologic therapies (e.g., acupuncture, mindful practice) should be encouraged when the patient is open to these alternative solutions to pain control.
- For breakthrough or severe pain, short-acting opioids (e.g., hydrocodone, oxycodone) should be prescribed at the lowest effective dose for no more than 3-5 day courses.
- Do not co-prescribe opioids with other sedatives or CNS depressant medications (e.g., benzodiazepines).
- Consider offering a naloxone co-prescription to patients who may be at increased risk for overdose, including those with a history of overdose, a substance use disorder, those already prescribed benzodiazepines, and patients who are receiving higher doses of opioids (e.g., >50 MME/Day).

For patients discharged with an opioid prescription

- Discuss the expectations regarding recovery and pain management goals with the patient.
- Educate patient and parent/guardian (for minors) regarding safe use of opioids, potential side effects, overdose risks, and developing dependence or addiction as required by Michigan law.
- Emphasize not using opioids concomitantly with alcohol or other sedative medications (e.g., benzodiazepines).
- Educate patient on tapering of opioids as dental/oral pain resolves.
- Refer to Michigan-Open.org for additional patient resources.

Acute Care Opioid Treatment and Prescribing Recommendations:

A Summary of Best Practices

These recommendations are to be used as a clinical tool, but they do not replace clinician judgment.

Emergency Department (ED)

For patients presenting with acute exacerbation of chronic non-cancer pain

- Non-opioid therapies should be used as first line therapy.
- Lost or stolen prescriptions should not be replaced.
- The prescription drug monitoring program (PDMP) must be accessed prior to prescribing controlled substances schedules 2-5, in compliance with Michigan law.
- Consider care coordination and/or effective ED-based Screening, Brief Intervention, and Referral to Treatment (SBIRT) with patients that have suspected risky opioid use or frequent ED visits.

For patients in methadone maintenance programs

- Replacement methadone should NOT be provided in the Emergency Department (ED).

For patients presenting with acute painful conditions

- Non-opioid therapies (e.g., acetaminophen, ketorolac) are encouraged as primary or adjunctive treatments.
- Non-pharmacologic therapies (e.g., ice, splinting) should be utilized.
- The prescription drug monitoring program (PDMP) must be accessed prior to prescribing opioids, in compliance with Michigan law.
- Meperidine (Demerol) should not be used.

For patients discharged from the ED with an opioid prescription for acute pain

- Long-acting opioids (e.g., fentanyl, methadone, OxyContin) should NOT be prescribed.
- Short-acting opioids (e.g., hydrocodone, oxycodone) should be prescribed for no more than three-day courses.
- Do not prescribe opioids with benzodiazepines and other sedatives.
- Information should be provided about opioid side effects, overdose risks, potential for developing dependence or addiction, avoiding sharing and non-medical use, and safe storage and disposal.
- Consider offering a naloxone co-prescriptions to patients who may be at an increased risk for overdose, including those with a history of overdose, a substance use disorder, those already prescribed benzodiazepines, and patients who are receiving a higher doses of opioids (e.g., >50 MME/day).

Acute Care Opioid Treatment and Prescribing Recommendations:

A Summary of Best Practices

These recommendations are to be used as a clinical tool, but they do not replace clinician judgment.

Surgical Department

Preoperative Counseling:
For patients not using
opioids before surgery

- Discuss the expectations regarding recovery and pain management goals with the patient.
- Educate the patient regarding safe opioid use, storage, and disposal.
- Determine the patient's current medications (e.g., sleep aids, benzodiazepines), and any high-risk behaviors or diagnosis (e.g., substance use disorder, depression, or anxiety).
- Do NOT provide opioid prescription, for postoperative use, prior to surgery date.

Intraoperative

- Consider nerve block, local anesthetic catheter or an epidural when appropriate.
- Consider non-opioid medications when appropriate (e.g., ketorolac).

Postoperative

- Meperidine (Demerol) should NOT be used for outpatient surgeries.
- If opioids are deemed appropriate therapy, oral is preferred over IV route.
- Ensure all nursing, ancillary staff and written discharge instructions communicate consistent messaging regarding functional pain management goals.

For patients discharged
from surgical department
with an opioid prescription

- The prescription drug monitoring program (PDMP) must be accessed prior to prescribing controlled substances schedules 2-5, in compliance with Michigan law.
- Non-opioid therapies should be encouraged as a primary treatment for pain management (e.g., acetaminophen, ibuprofen).
- Non-pharmacologic therapies should be encouraged (e.g., ice, elevation, physical therapy).
- Do NOT prescribe opioids with other sedative medications (e.g., benzodiazepines).
- Short-acting opioids should be prescribed for no more than 3-5 day courses (e.g., hydrocodone, oxycodone).
- Fentanyl or Long-acting opioids such as methadone, OxyContin and should NOT be prescribed to opioid naïve patients.
- Consider offering a naloxone co-prescription to patients who may be at increased risk for overdose, including those with a history of overdose, a substance use disorder, those already prescribed benzodiazepines, and patients who are receiving higher doses of opioids (e.g., >50 MME/Day).
- Educate patient and parent/guardian (for minors) regarding safe use of opioids, potential side effects, overdose risks, and developing dependence or addiction.
- Educate patient on tapering of opioids as surgical pain resolves.
- Refer to opioidprescribing.info for free prescribing recommendations for many types of surgeries.