



MDHHS | SUBSTANCE USE IN MICHIGAN

<http://www.mi-suddr.com>



ABOUT US

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PROJECT BACKGROUND

- Created via funding from a federal grant to the State Epidemiological Outcomes Workgroup (SEOW)
- Administered by the Office of Recovery Oriented Systems of Care (OROSC)

PURPOSE & AUDIENCE

- To provide data for:
 - ❖ Local prevention agencies and coalitions to enable data-driven programming decisions
 - ❖ For grant seeking purposes
- To define the scope of a problem in a specific geographical location
- Substance Use Disorder Administrators
 - ❖ Information about target populations

SITE OVERVIEW

- The Michigan Substance Use Disorder Data Repository allows users to find data on various substance use topics.
- The data is presented in visualizations that allow the data to be explored as interactive maps, bar charts and tables.
- The data can also be downloaded and used in community planning and outreach documents.

DATA SOURCES

Secondary Data Sources

- US Census
- Michigan Office of Highway Safety Planning
- Treatment Episode Data Set (TEDS)
- Centers for Disease Control
- Michigan Automated Prescription System (MAPS)
- Division of Vital Records & Health Statistics

Surveys

- Michigan Profile for Healthy Youth (MiPHY)
- National Survey on Drug Use and Health (NSDUH)

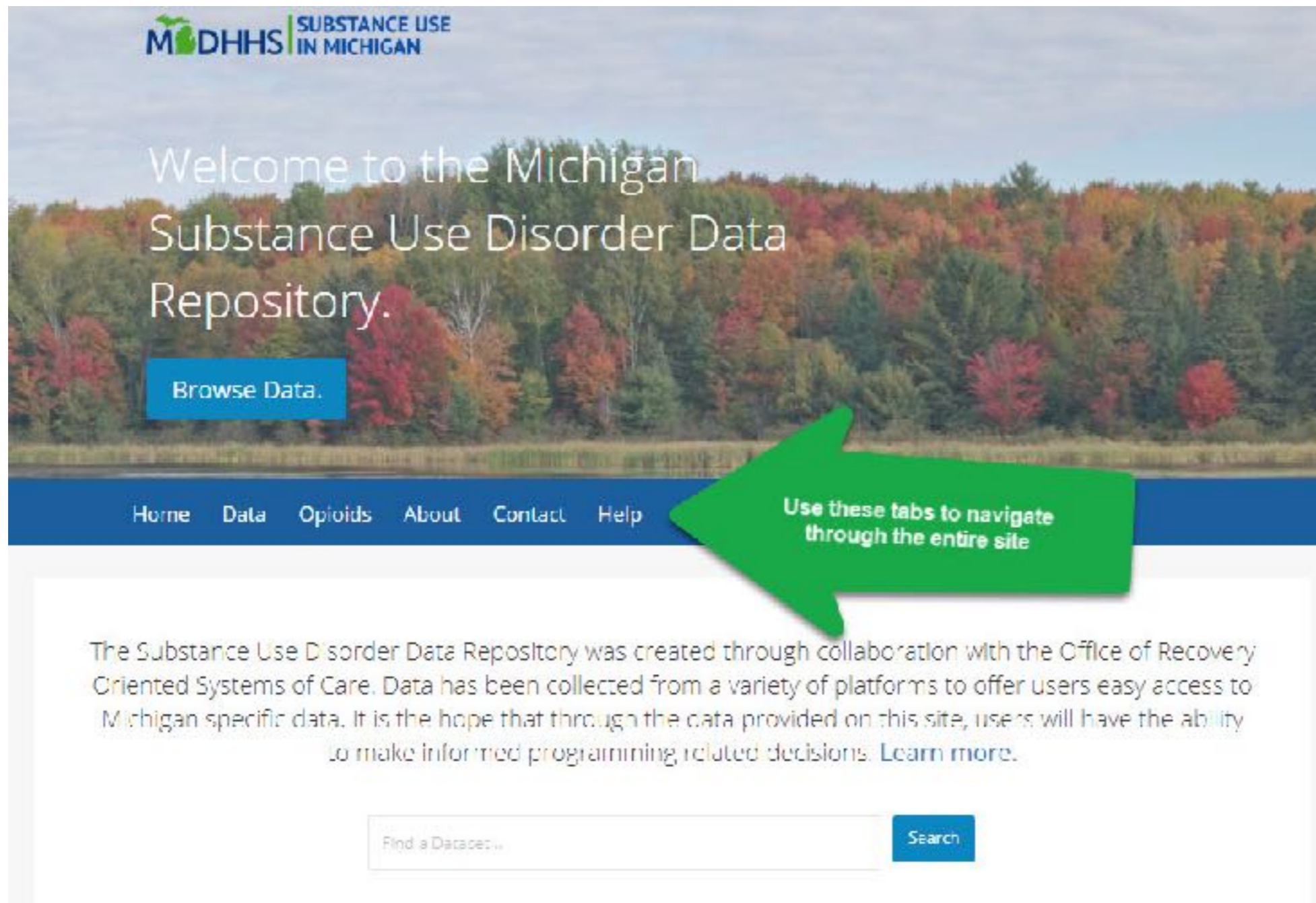
DATA LIMITATIONS

- **Generalizability:** The MiPHY results are based on student survey responses from high/middle schools that voluntarily participated in a county and may not be representative of all high/middle schools in the county. Therefore, the results cannot be generalized nor used to compare county to county.
- **Time lag:** There is generally a two year lag between when the deaths and hospitalizations data are available for publishing.
- **Measures:** That is reporting rates vs counts. Due to small number of incidences, counts are presented rather than rates to avoid flagged as unreliable due to high relative standard errors.

TECHNICAL DETAILS

- Site built in WordPress with a custom plugin created in Tableau
- Tableau is used to manage all data sets

HOMEPAGE VIEW



MDHHS | SUBSTANCE USE IN MICHIGAN

Welcome to the Michigan Substance Use Disorder Data Repository.

[Browse Data.](#)

[Home](#) [Data](#) [Opioids](#) [About](#) [Contact](#) [Help](#)

Use these tabs to navigate through the entire site

The Substance Use Disorder Data Repository was created through collaboration with the Office of Recovery Oriented Systems of Care. Data has been collected from a variety of platforms to offer users easy access to Michigan specific data. It is the hope that through the data provided on this site, users will have the ability to make informed programming related decisions. [Learn more.](#)

Find a Dataset: [Search](#)

Recent data updates will also be noted on the homepage.

SEARCHING FOR DATA

- On the home page you will find a bulletin linking to all new data
- Here you can search and view all the data sets available

The screenshot displays a web interface for data discovery. At the top right, the text "Newest Datasets" is visible. Below this, two data entries are listed. Each entry features a small "MIPHY" logo, a title, a date, a description, and a "Read More" button. The first entry is "Youth Access to Alcohol (MIPHY)" dated "NOVEMBER 5 2019". The second entry is "Youth Risk of Alcohol Use (MIPHY)" also dated "NOVEMBER 5 2019". Below the entries is a search bar with the placeholder text "Search Datasets...", a blue "Search" button, and a larger blue "View All Datasets" button.

COMMUNITY PROFILES

Community Profiles

Community profile data includes the most up to date US Census data (2010) for counties across Michigan. Census data includes; education attainment, employment status, race/ethnicity, and county level population data. State level data and poverty status county data are provided through the 2013-2017 American Community Survey data. Additional Census data can be found here: <https://www.census.gov/en.html>

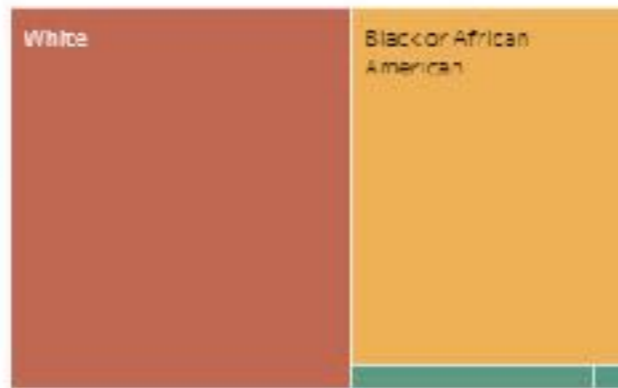
Wayne County

Population (2010)
1,020,584

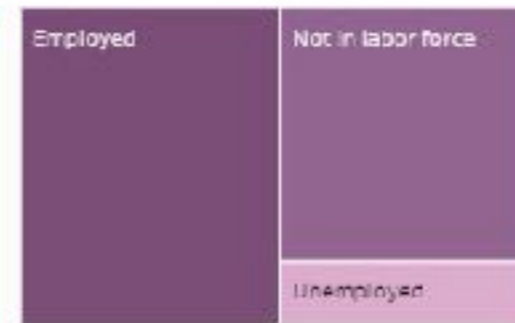
Click on a county then hover over the category boxes for data.



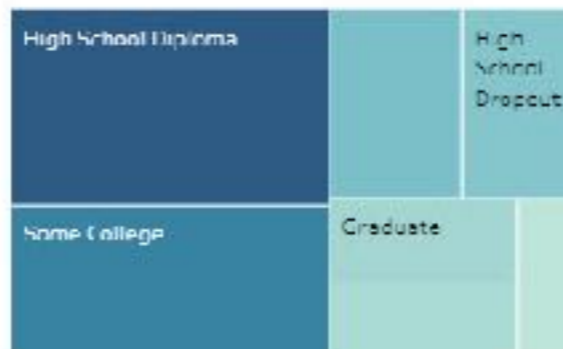
Race and Ethnicity



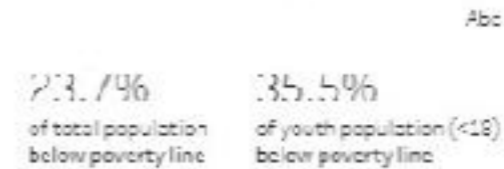
Employment



Education



Poverty



Abc

EXPLORING DATA

Each data visualization has two views for interacting with and selecting data for download:

Map/Chart View

Bar Graph View

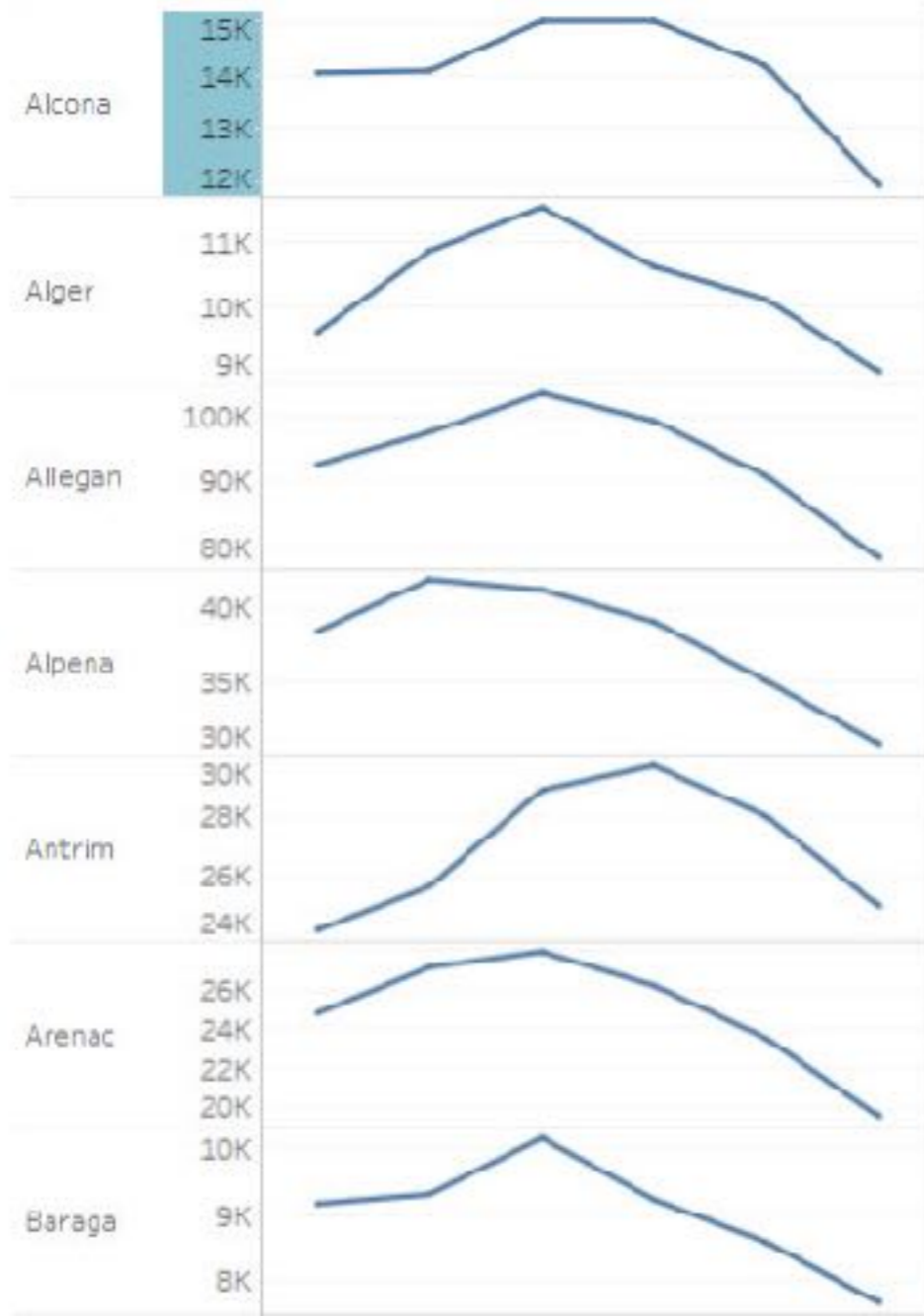
New: Spark Lines

SPARK LINES VIEW

Opioid Prescriptions Dispensed

Opioid Prescriptions Dispensed | Opioid Prescriptions Dispense... | Opioid Prescriptions Dispens

Opioid Prescriptions Dispensed



DATA DOWNLOAD

All of the data on the site is available for download in a variety of formats, including .PDF, .PNG, and .TXT. To download data, simply click the download icon located in the bottom right corner of each dataset, then follow the prompts to select your file format.



(Download icon is highlighted in red.)

A link to the data page can also be directly shared from the website. Data can be downloaded as: an image, data file, crosstab, PDF, or Tableau Workbook.

USING DATA

- For grants/fund development - basic information for needs and background, county profiles for target description.
- For planning - data required for logic models, work plans, goal development in prevention, community mental health etc...
- Where do you use data like this?

INTERPRETING DATA

- Here we provide helpful tips for utilizing the data on the website

Introduction to Interpreting Data

Using data requires some understanding of the nature and quality of the available data. The following outlines some basic data concepts and provides additional resources to help users best utilize the information available through this site.

Using Data with Your Strategic Prevention Framework Model

In keeping with the use of the Strategic Prevention Framework (SPF), we have provided some sample questions for each of the 5 steps of SPF model. The data you will find on this site is particularly useful for the Assessment and Capacity Building phase as noted below. The SPF model, however, builds on the following:



Assessment

What intervening variables contribute to the consequences and consumption patterns you wish to change?
What does the local data (county indicators, focus groups, key leader interviews, etc.) say about retail availability of laws and policies or social norms in your community? State the issue in a brief problem statement within the logic model.

Capacity Building

Do you have expertise on your staff level or coalition to compile, share, and analyze data?
Are there local training and technical assistance needs concerning the importance, meaningfulness, and utility of data that need to be addressed?

Community Planning

What strategies, related to the contributing factors, can positively impact the intervening variables?

Implementation

Who are the experts in your community to carry out the strategy (policy, practice, or program) recommendations?

Evaluation

How will you best measure change, and also include them in the development of an evaluation plan?

More Information

For more information on the Strategic Prevention Framework model: <https://www.samhsa.gov/ncapt/applying-strategic-prevention-framework>

Tips for Analyzing Data

Be sure to analyze the data. Read the definitions, explanations, and footnotes because some of the data have limitations that may lead to inaccurate interpretations.

FACT SHEETS

- At the bottom of the data tab you will find the factsheets link

The Office of Recovery Oriented Systems of Care has produced fact sheets on the following topics. Click on a topic below to view and/or download the factsheet.

- ▶ Prescription Drug-Related Mortality in Michigan (2012)
- ▶ Preventing Prescription Drug Misuse (2016)
- ▶ Preventing Heroin Use (2013)
- ▶ Marijuana: How it Changes the Brain (2014)
- ▶ Preventing Youth Marijuana Use (2014)
- ▶ Preventing Marijuana Use Among Youth & Young Adults (2017)
- ▶ E-Cigarettes: Deconstructing the Health Claims
- ▶ Cancer and Alcohol Use (2014)
- ▶ Michigan Traffic Crashes (2005-2016)
- ▶ Fatal Traffic Crashes in Michigan (2017)

FACT SHEET EXAMPLE

Up in Smoke: Deconstructing the Health Claims of E-Cigarettes



Electronic cigarettes, or *e-cigarettes*, have been growing in popularity in recent years. As traditional smoking has declined, use of e-cigarettes has increased among teenagers, surpassing traditional cigarettes. While touted as the “healthier” cousin of the traditional cigarette, e-cigarettes still pose great risk to users. No long-term studies exist on the risks of e-cigarette smoking, nor does the industry currently possess a regulated manufacturing process—addictive nicotine and an unregulated mix of chemicals plague e-cigarettes just as they do traditional cigarettes. The infographic seen below is meant to shed some light on the adverse events and risks e-cigarette users face.

Nicotine content in e-cigarettes is highly variable, regardless of the advertised content, because of the market’s lack of standard manufacturing processes.

After only **5 minutes** of use, e-cigarette smokers show signs of airway constriction and inflammation.

Infections may be harder to kill among e-cigarette users. E-cig vapors help protect the antibiotic-resistant bacteria linked to pneumonia.

The liquid stimulant used, known as **e-liquid**, can cause vomiting, seizures, or death when ingested or absorbed through the skin.

An **atomizer** heats liquid in the cartridge which can thermally breakdown into carcinogenic compounds such as formaldehyde and acetaldehyde.

Higher voltage batteries in e-cigarettes deliver high levels of nanoparticles, which can trigger inflammation and are linked to asthma, stroke, heart disease, and diabetes.



Propylene glycol and glycerin are the main ingredients of e-liquid. These compounds are known to be eye and respiratory irritants when heated and vaporized, and may also create carcinogenic compounds. If the e-liquid is substituted with unregulated synthetic drugs the potential for harm is amplified.

References:

- <http://www.drugabuse.gov/news-events/news-releases/2014/12/teen-prescription-opioid-abuse-cigarette-alcohol-use-trends-down>
- Grana R, Benowitz N, Glantz SA. E-cigarettes: a scientific review. *Circulation*. 2014 May 13;129(19):1972-86. doi: 10.1161/CIRCULATIONAHA.114.007667. Review.
- Vardavas CI, Anagnostopoulos N, Kougias M, Evangelopoulos V, Connolly GN, Behrakis PK. Short-term pulmonary effects of using an electronic cigarette: impact on respiratory flow resistance, impedance, and exhaled nitric oxide. *Chest*. 2012 Jun;142(6):1400-6.
- Kosmider L, Sobczak A, Flak M, Kryszak I, Zaczera M, Kurek J, Goniewicz ML. Carbonyl compounds in electronic cigarette vapors: effects of nicotine solvent and battery output voltage. *Nicotine Tob Res*. 2014 Oct;16(10):1319-26.

NEW: OPIOIDS TAB

- Goal for the opioid page is to provide the most up to date opioid related data and additional resources

The Problem

Over 11 million opioid prescriptions were filled in 2016, enough for at least one opioid prescription for every person in Michigan. Drug overdose deaths continue to increase and were the leading cause of injury deaths in 2015. The increases in drug overdose deaths are being driven by increases in opioids involved (prescription opioids and illicit) overdose deaths.

OPIOID HELPLINE: 1-800-662-4357 | www.hhs.gov/opioids

By The Numbers

30,711

People in SUD Treatment
for Opioids or Heroin
in Michigan in 2017

9,492,455

Opioid Prescriptions Written
in Michigan in 2017

2,053

Opioid Deaths
in Michigan in 2017

299%

Increase in Opioid Deaths
in Michigan in 2017

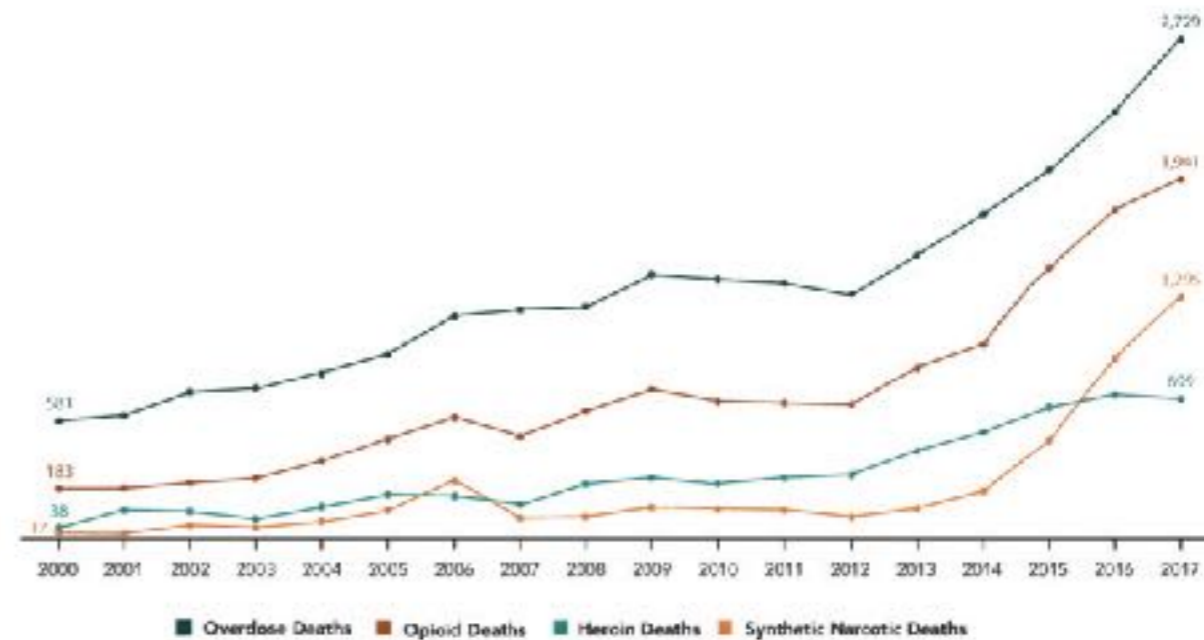


Image courtesy of Michael Sporn

OPIOIDS TAB

Explore Our Current Opioid Data

Click the title to expand and view the dataset.

▶ Opioid Overview Dashboard

▶ Opioid Related Hospitalizations

▼ Opioid Prescriptions Dispensed

Opioid Prescriptions Dispensed | Opioid Prescriptions Dispense... | Opioid Prescriptions Dispensed...

Opioid Prescriptions Dispensed



Opioid Prescriptions Dispensed Year
 1,121 10,000,701 | 2013

Opioid Prescriptions Dispensed

	2013	2014	2015	2016
Alcona	9,771,301	10,150,001	10,000,701	10,004,018
Alcona	14,099	14,075	15,000	15,011
Alcona	9,500	10,873	11,907	10,591
Alecan	92,004	97,000	100,000	99,271
Alcona	53,367	41,878	41,188	50,310
Alcona	21,189	25,600	25,016	25,060
Alcona	24,749	27,007	27,042	20,140
Alcona	0,140	0,290	10,197	0,211
Berry	15,000	50,000	50,000	50,000
Bay	117,000	130,000	117,000	114,111
Branch	17,501	17,017	18,327	18,433
Brenner	166,000	166,114	140,000	140,400
Brench	16,000	16,000	44,000	40,000
Calhoun	150,000	170,000	180,000	180,000
Cass	91,001	95,151	94,000	98,130
Charlevoix	11,000	10,000	11,000	12,000
Cheboygan	20,406	31,161	33,000	33,668
Chippewa	85,000	97,000	90,000	88,000
Clerc	49,000	52,000	52,000	49,100
Clinton	48,720	48,346	48,520	47,400
Crawford	15,106	16,000	18,500	18,701
Delta	10,000	10,000	17,000	10,000
Dikinson	25,000	27,000	20,000	25,140
Fallon	108,000	118,000	128,000	121,000
Emmet	10,000	10,000	10,000	10,000
Ganocob	887,000	888,000	905,000	872,810
Gladwin	40,000	40,000	40,000	38,500
Gogebic	10,000	10,000	10,000	10,000
Grand Traver..	68,000	68,000	70,400	68,640
Grandval	41,000	48,000	46,000	44,000
Hillsdale	10,000	10,000	17,000	10,000
Houghton	24,100	20,011	29,741	27,900
Huron	90,001	90,000	95,000	94,640
Ingham	207,000	207,000	211,000	200,000
Ionia	50,000	50,017	60,000	64,440
Ionia	41,000	44,000	46,000	46,810
Iron	10,000	10,000	10,000	10,000
Isabella	47,919	48,000	51,990	50,070
Ipswich	155,670	170,000	185,000	178,000
Kalamazoo	205,000	211,000	225,000	220,000
Kalamazoo	21,000	22,000	24,140	20,770
Kent	458,187	470,000	538,000	517,170
Keweenaw	1,000	1,000	1,000	1,000

Tableau

Tableau

FEEDBACK

- What data would you like to see on the site?
- How to make the site more user friendly?
- What features would you like to see?

CONTACT

Please contact us to let us know how we can continue to improve the site..

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MYTIE Grant Evaluator
WSU School of Social Work

Ask to be added to our listserve for site updates.