



The Opioid Epidemic: Madison County, NY



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Executive Summary

Since 2016, this report has provided a comprehensive overview of the opioid epidemic at local, state, and national levels. The purpose is to guide future actions, efforts, and policies by presenting current data and highlighting examples of current initiatives.

Notably, this year's report shows the continued decline in opioid-related overdose deaths for both Madison County and New York State. The decline mirrors the national trend, which estimates a decrease in overdose deaths for 2023. This improvement suggests that the culmination of efforts in prevention, harm reduction, and treatment are working together to reduce opioid-related deaths and ultimately, the impact on our community.

The current report has been expanded to include more data related to current initiatives as a way to measure the progress of this complex issue. It is divided into two sections. The first part examines the context of the opioid epidemic and compares the number of overdose deaths, hospitalizations, and emergency department visits across county, region, and state levels. The second part highlights local efforts to address opioid use through prevention efforts, harm reduction strategies, and treatment options. Previous initiatives are captured through past reports and are available online: <https://www.madisoncounty.ny.gov/1754/Opioid-Epidemic-Annual-Reports>.

Key points outlined in this report include:

- Nationally, opioid-related overdose deaths decreased in 2023 for the first time since 2018.
- In Madison County, opioid-related overdose deaths for 2023 decreased for a second consecutive year following a three year period of increasing rates.
- Hospital admissions and emergency department visits related to opioids continued to decline in Madison County and the Central New York (CNY) region.
- Opioid prescribing rates have continued to decrease nationally, statewide, and locally; however, the rate in Madison County remains higher than the regional and state (excluding New York City) averages.
- Annual opioid-related treatment admissions to OASAS-certified chemical dependence programs have steadily decreased since peaking in 2016.
- Usage of Naloxone (Narcan®), a life-saving drug for opioid overdoses, decreased by 29% between 2022 and 2023.

Background

The opioid epidemic in the United States is a complex, multi-layered problem, characterized by three distinct waves (Figure 1). The first wave began in the 1990s due to widespread over-prescription of highly addictive pharmaceutical opioids like oxycodone (OxyContin®), hydrocodone (e.g., Vicodin®), and methadone.^{1,2} During the second wave, prescription practices tightened and many individuals shifted to more affordable and accessible alternatives such as heroin. From 2011 and 2013, heroin-related deaths increased among all demographic groups, but most notably in historically low-rate populations such as women and people who identify as non-Hispanic white.³

The current wave of the opioid epidemic began between 2013 and 2014 when synthetic opioid deaths surpassed heroin due to its higher potency, cost-effectiveness, and ease of transport.^{4,5} In particular, fentanyl has especially exacerbated the crisis due to its potency, which is 50-100 times greater than morphine.⁶ In 2022, 90% of the estimated 81,806 opioid overdoses were attributed primarily to fentanyl or other synthetic opioids, accounting for nearly 70% of all overdose deaths.⁷

Over the last decade, the opioid epidemic garnered national attention and was declared a public health emergency in 2017.⁸ This heightened awareness led to increased prevention, harm reduction, and treatment efforts at national, state, and local levels. In May of 2024, the CDC announced that opioid-related overdose deaths dipped for the first time in five years since 2023.⁹

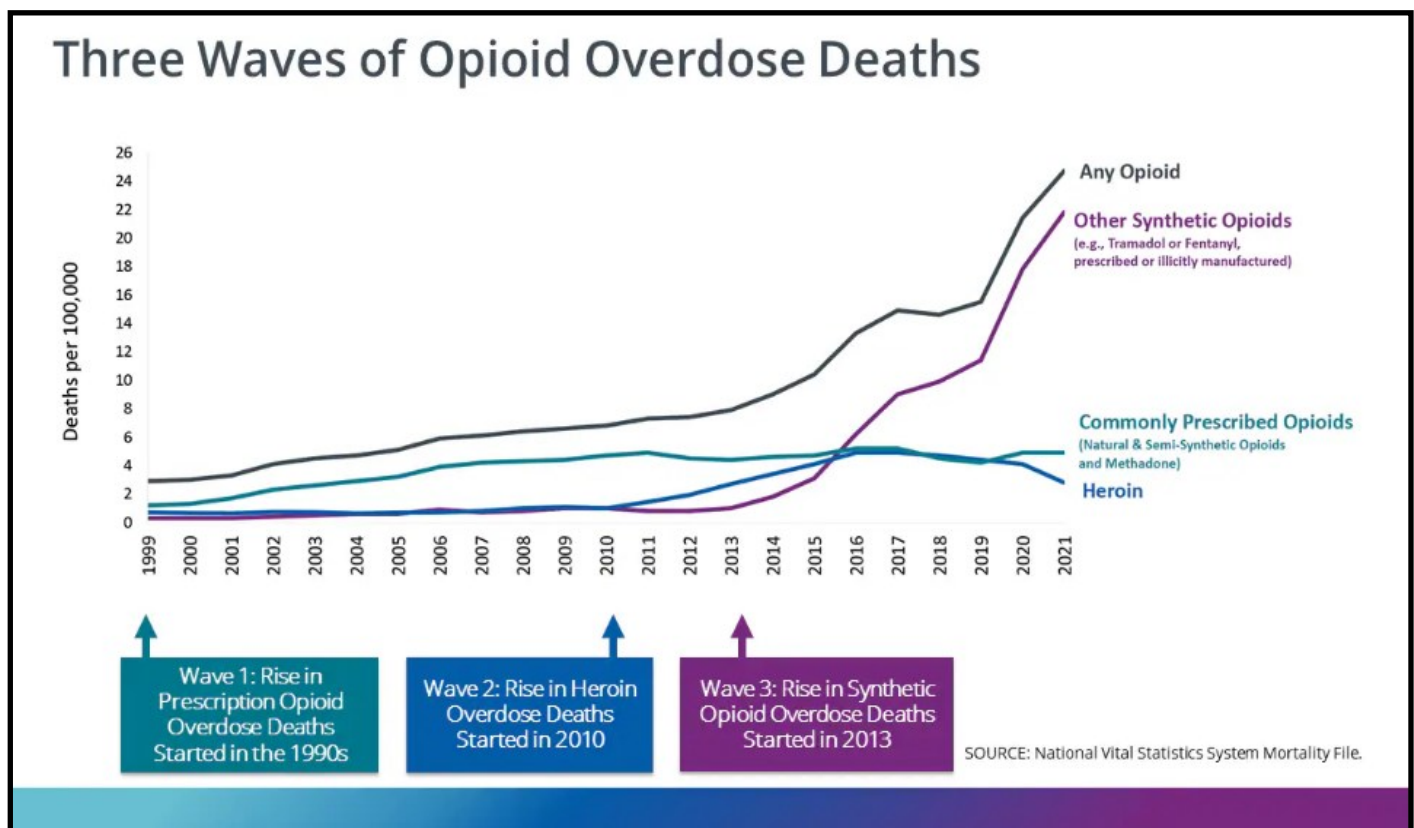


Figure 1. Opioid overdose death rates per 100,000 population among waves 1-3 of the opioid epidemic.

Source: National Vital Statistics System Mortality File.¹ Accessed: June, 2024.

The Heart of the Epidemic

Overdose Deaths

Madison County and Central New York's annual opioid overdose death rate declined for the second consecutive year following increases between 2019 and 2021 (Figure 2). Since 2022, Madison County's overdose death rate decreased by 7.3% to 19.1 per 100,000 population. Although the regional rate remains above New York State (excluding NYC), Madison County's rate is below both the region and NYS (excluding NYC), ranking as third lowest in the area (Figure 2). Additionally, the county continues to experience reduced opioid overdose deaths from all substance types (Figure 3).

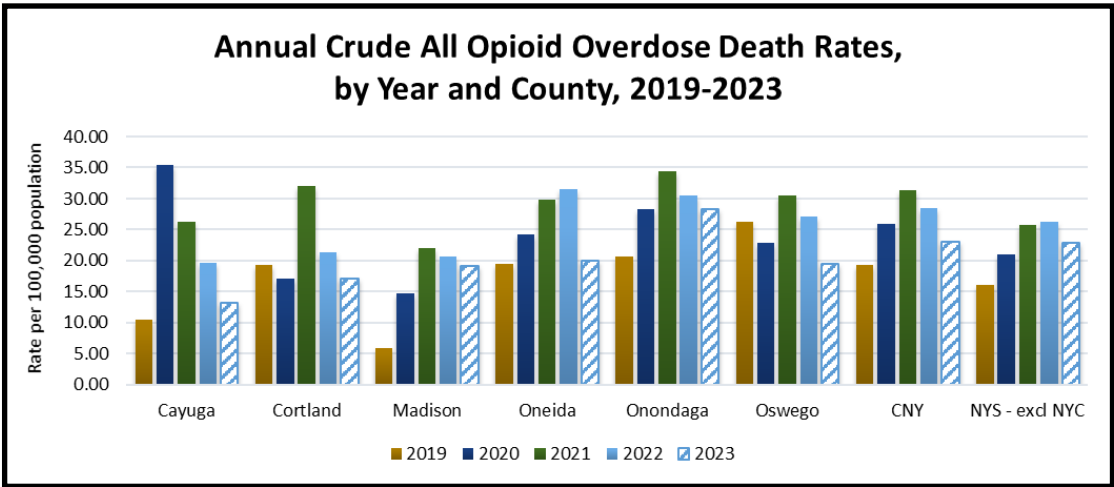


Figure 2. Annual opioid overdose death rate among Central New York counties compared with NYS (excluding NYC), 2019-2023. Source: NYSDOH Vital Statistics; 2019-2023 — NYSDOH, New York State County Opioid Quarterly Reports.¹⁰ Accessed: July, 2024.

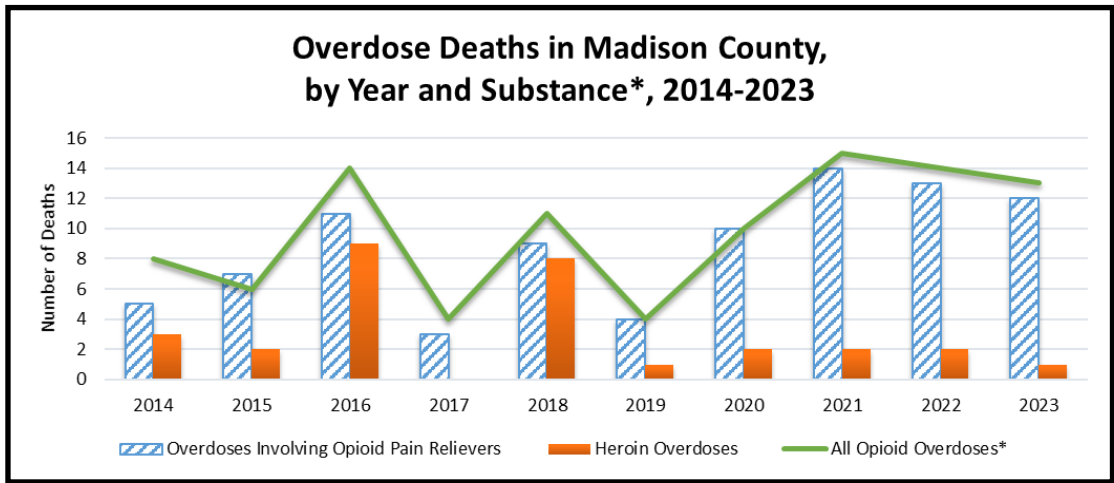


Figure 3. Annual overdose deaths by substance, Madison County, 2014-2023. *Indicators are not mutually exclusive. Decedents and patients may have multiple substances in their system. Thus, overdoses involving heroin and overdoses involving prescription opioid pain relievers will not add up to the overdoses involving all opioids. Source: 2014-2023 – NYSDOH, New York State County Opioid Quarterly Reports.¹⁰ Accessed: July, 2024.

Effects on the Healthcare System

Hospitalization and Emergency Department Visits

The national opioid epidemic has placed a significant economic burden on the United States healthcare system. According to a 2020 study, the societal costs of opioid use disorder totaled \$786.8 billion in 2018, with healthcare expenditures accounting for \$89.1 billion of this amount.¹¹ Nationally, the cost of opioid-related visits and hospitalization continues to increase each year.

Opioid overdose-related hospitalizations and emergency department (ED) visits in New York State are tracked through the Statewide Planning and Research Cooperative System (SPARCS). Hospital admission rates among Madison County residents were unavailable for 2021 and 2022*. However, in 2023 the hospital admission rate for the county was 2.9 per 100,000 population, which is about 75% less than the rate calculated in 2020 (Figure 4).

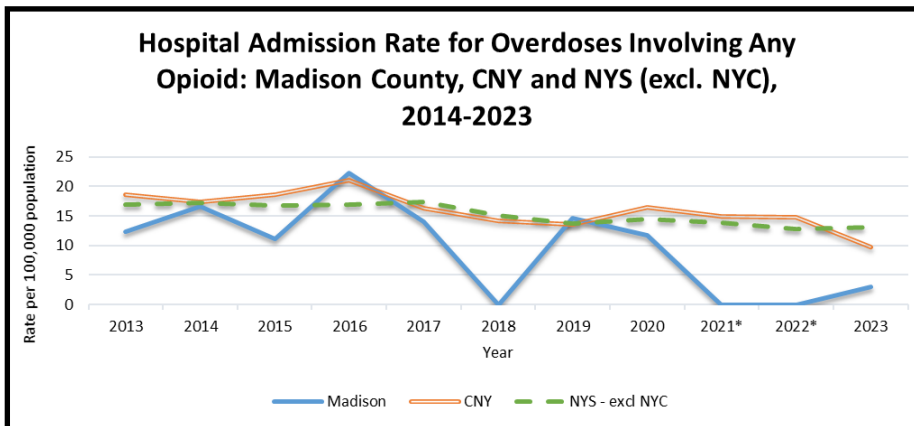


Figure 4. Annual inpatient hospitalization admissions rates due to opioid overdose in Madison County, Central New York (CNY), and New York State (excluding NYC), 2013–2023.

Source: NYSDOH, New York State County Opioid Quarterly Reports.¹⁰ Accessed: July, 2024.

*Admission counts <6 are reported as 0, and a rate cannot be calculated.

Madison County opioid overdose ED visit rates fluctuated until 2020 and peaked in 2016. After 2020, both Madison County, Central New York, and New York State (excluding NYC) have seen consistent declines in ED visit rates (Figure 5). In 2023, the ED visit rate among Madison county residents was 18.3 per 100,000 population.

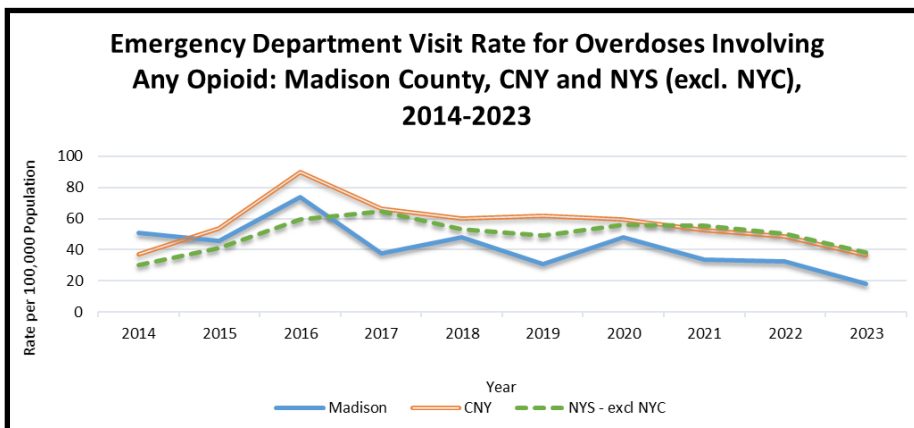


Figure 5. Annual emergency department visit rates due to opioid overdose in Madison County, Central New York (CNY), and New York State (excluding NYC), 2014–2023. Source: NYSDOH, New York State County Opioid Quarterly Reports.¹⁰ Accessed: April, 2024.

Prevention Efforts

Opioid prevention efforts aim to reduce non-medical use of illicit and prescription opioids through strategies that monitor trends in access, usage, and address community needs.¹² This section examines local prevention efforts, including Prescription Monitoring Programs (PMP), trends in drug sales, monitoring youth substance use, and the implementation of programs such as Mental Health First Aid (MHFA).

Opioid Prescribing Trends

In the United States, the opioid dispensing rate declined steadily from a rate of 46.8 opioid prescriptions dispensed per 100 persons in 2019 to a rate of 39.5 opioid prescriptions dispensed per 100 persons in 2022.¹³ This decline may be attributed to the 2015 federal brief advocating for statewide PMPs and universal prescribing practices, potentially prompting more states to implement PMPs and the CDC to issue opioid prescribing guidelines in 2016.¹⁴⁻¹⁶

Information on opioid prescribing in New York State is collected from the online Prescription Monitoring Program Registry and maintained by the NYS Department of Health's Bureau of Narcotic Enforcement.¹⁷ Licensed prescribers (excluding veterinarians) are required to consult the registry for Schedule II, III, and IV controlled substances. The list of substance by schedule is available on the US Drug Enforcement Administration website: <https://www.dea.gov/drug-information/drug-scheduling>.

The opioid prescription rates in Madison County, Central New York, and New York State (excluding New York City) all experienced a steady decline from 2016 to 2021, with rates falling below 2012 baseline levels (Figure 6). Madison County's rate peaked in 2016, coinciding with the release of prescribing guidelines by the CDC. The overall trend shows that while Madison County's rates consistently remain higher than those of the surrounding region and state (excluding NYC), they have become more comparable over time, despite a slight increase of less than 1% in 2022 (Figure 6).

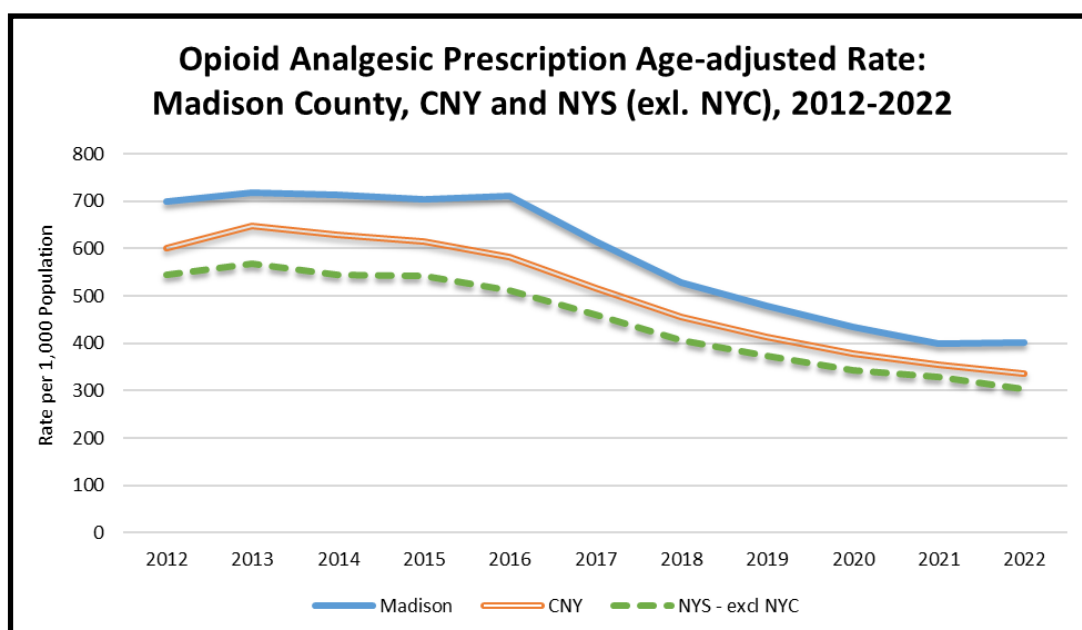


Figure 6. Opioid analgesic prescription rates, Madison County, Central New York (CNY), and New York State (excluding NYC), 2012–2022. Source: NYSDOH, New York State Opioid Data Dashboard.¹⁸ Accessed: July, 2024.

Drug Sales

Despite indications of declining trends, the United States has historically been one of the biggest consumers of opioids compared to other countries.¹⁹ According to the International Narcotics Control Board's 2023 Annual Report, in 2021, the United States had a notably higher availability of opioids, with 31,860 Defined Daily Doses per million people per day (S-DDDpm), in contrast to the majority of countries, which typically reported less than 10,000 S-DDDpm.²⁰

To ensure accountability and oversight in the distribution of controlled substances such as opioids, drug manufactures and distributors in the United States are required to report their retail transactions (to hospitals, retail pharmacies, practitioners, mid-level practitioners, and teaching institutions) to the Drug Enforcement Administration (DEA) through the Automated Reports and Consolidated Orders System (ACROS).²¹

Based on data from the most recent ACROS Retail Drug Summary, the graph below illustrates retail opioid sales per 100,000 people in the Central New York region and throughout New York State from 2014 to 2023 (Figure 7). Since 2014, opioid sales in the region have generally declined. Although they briefly rose in 2019, they never exceeded pre-2017 levels and have decreased yearly since 2021.

The rate of opioid sales per 100,000 population for NYS as a whole has consistently remained lower than that of the CNY except for 2018. Please note though that oxycodone distribution was excluded from the CNY total in 2018 and likely accounts for the significant difference in the rate.

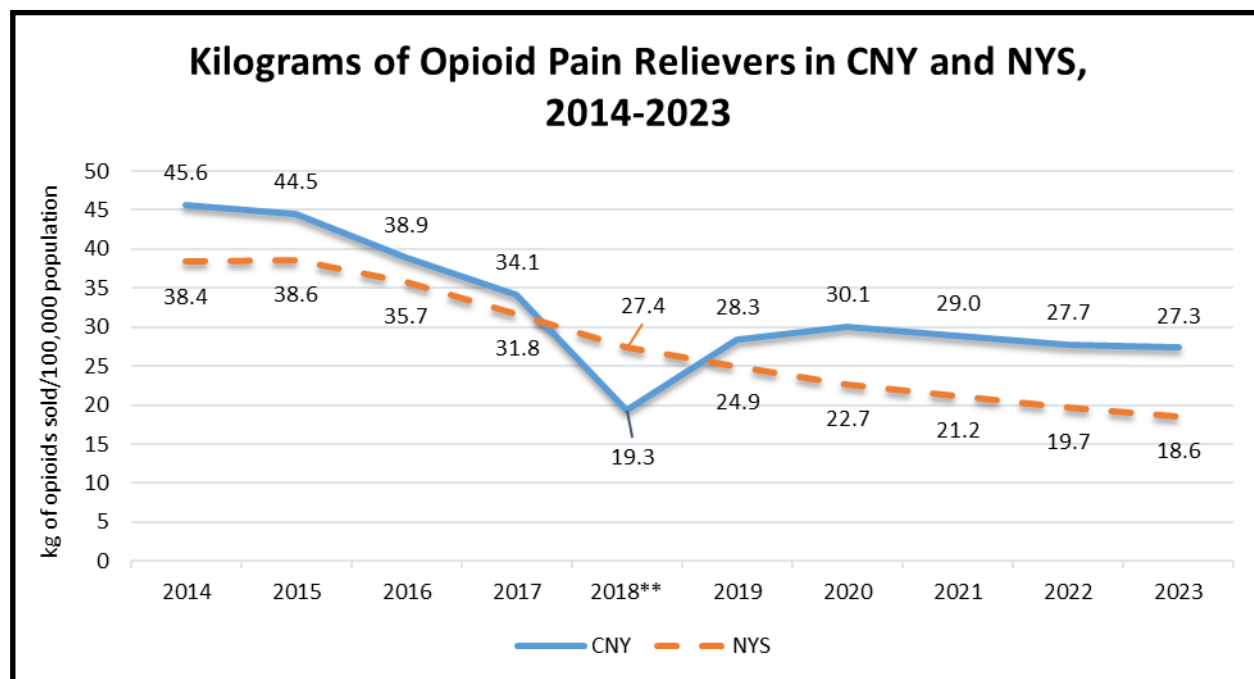


Figure 7. Opioid sales per 100,000 population in Central New York (CNY) and New York State (NYS), 2014–2023. Drug sales data collected for CNY zip codes 130XX-135XX, New York statewide, and drugs including Codeine, Fentanyl, Hydrocodone, Hydromorphone, Meperidine (Pethidine), Methadone, Morphine, and Oxycodone.

Source: Automated Reports and Consolidated Ordering System (ARCOS).²² Accessed: July, 2024.

**Oxycodone distribution was excluded from CNY total, likely accounting for the significant difference between NYS and CNY rates

Mental Health First Aid

Mental Health First Aid (MHFA) equips individuals with the tools to recognize, respond and provide initial support to those experiencing issues with mental health or substance use.²³ Since 2022, the Madison County Rural Health Council (MCRHC) has offered MHFA courses to teens and adults in Madison County and surrounding areas.²⁴ Teen and adult MHFA courses prepare individuals to provide initial support to their peers, while youth MHFA is tailored for parents, teachers, and adults supporting adolescents aged 12-18.

To date, MCRHC has trained 2,194 Madison County residents, with 74% being high school students. Of the 579 adults trained, approximately 87% received Youth MHFA training. Through school partnerships within Madison County, MCRHC reached 2,123 high school students, parents, and staff. In the first year of the partnership, 722 Madison County students received training; in the second year, an additional 893 students were trained (Figure 8).

During the 2023-2024 school year, participating schools documented 612 student referrals to mental health and substance use resources. Nearly 50% of these referrals were initiated by teens.

Research supports that the quality of an individual's relationships and social networks influences their risk of developing mental health or substance use disorders, which often coexist.²⁵⁻²⁷ According to the National Council for Mental Wellbeing, which oversees the national MHFA program, if 1 in 15 Americans become certified, nearly every American could have a Mental Health First Aider in their close circle of friends, family, or peers.²⁸ Applying this concept, the 2,194 people certified in Madison County could potentially impact up to 32,910 individuals. By offering these trainings, MCRHC has bolstered mental health and substance use disorder prevention efforts by cultivating supportive networks within our community.

To learn more, please visit their website at mcruralhealthcouncil.org.

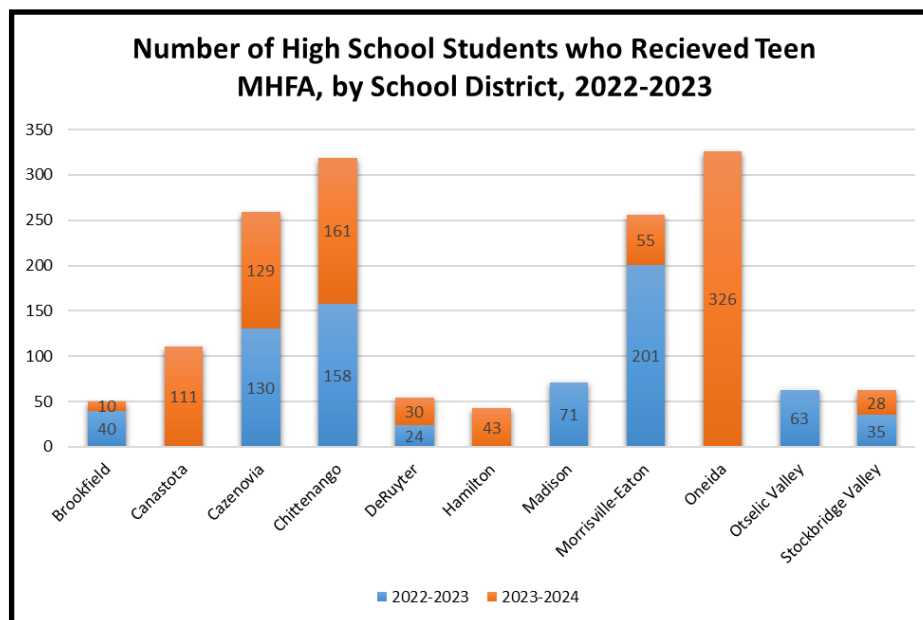


Figure 8. Number of Madison County Residents who Received MHFA, by Course, between 2022-2024.
Source: Madison County Rural Health Council. Requested: June, 2024

Substance Use Among Youth

In 2022, the Teen Assessment Project (TAP) survey, conducted by the Madison County Youth Bureau, collected information from 3,099 students in grades 7-12 at Madison-Oneida BOCES and nine school districts.²⁹ Beginning in 1999, this survey aims to assess the risk and protective factors, developmental assets and resources present in the lives of young people in Madison County. Behaviors related to substance use have been monitored through the TAP survey for many years.

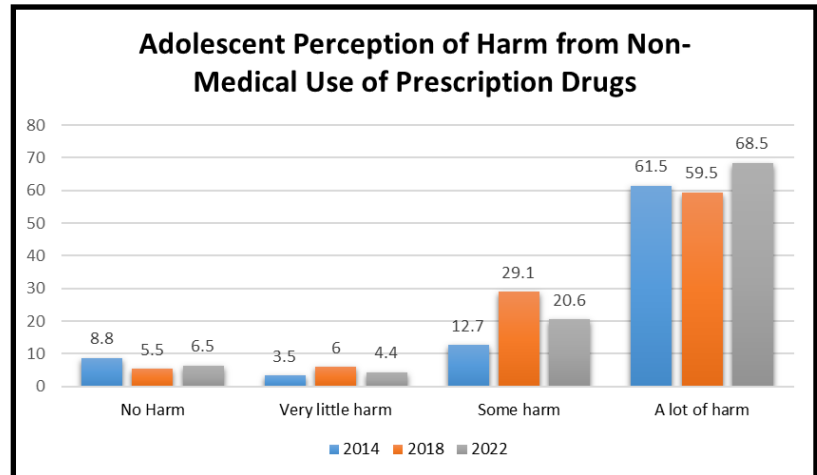


Figure 9. Adolescent Perception of Harm from Non-Medical Use of Prescription Drugs. Source: Madison County Youth Bureau, Teen Assessment Project (TAP) Survey Report.²⁹ Accessed: June, 2024.

Since 2014, between 96% and 99% of Madison County adolescents have never tried heroin or other opiates, and over 90% have consistently abstained from non-prescribed prescription drugs.²⁹ In 2022, 68.5% of students perceived using prescription medication without a prescription as causing "A lot of harm," with "Some harm" reported by 20.6%, "No harm" by 6.5%, and "Very little harm" by 4.4% (Figure 9).²⁹

Each year the majority of respondents consistently and increasingly cite "Health concerns and addiction prevention" as the strongest influential factor in preventing or stopping substance use.²⁹ In contrast, family influence, the second strongest reported influence deterring substance use among respondents, has shown a steady decline since 2014 (Figure 10).²⁹

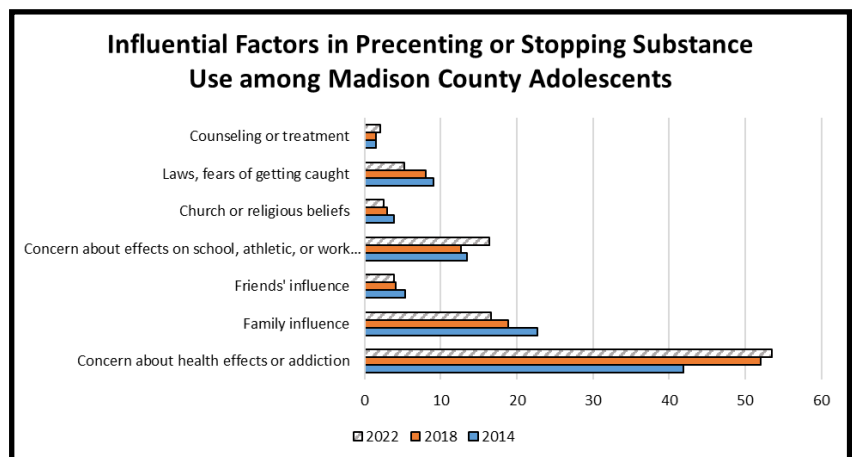


Figure 10. Influential Factors in Preventing or Stopping Substance Use Among Madison County Adolescents. Source: Madison County Youth Bureau, Teen Assessment Project (TAP) Survey Report.²⁹ Accessed: June, 2024.

Overall, the survey suggests that opioid use among Madison County adolescents is uncommon. However, schools and parents should emphasize to teens the current risks associated with accidental fentanyl exposure through the consumption of counterfeit prescription drugs, particularly as students transition to college or enter the workforce.³⁰ In addition to the Mental Health First Aid training provided in local school districts, Madison County Mental Health Department has also made services available in Chittenango, Cazenovia, Hamilton, and Morrisville school districts through satellite clinics. During the 2023-2024 school year, 468 students were referred to the clinics, and a total of 5,414 counseling sessions were provided.

Harm Reduction Efforts

Harm reduction encompasses a variety of public health policies and practices aimed at minimizing the adverse impacts of human behaviors, whether legal or illegal.³¹ An example of a daily harm reduction behavior includes using sunscreen when going outdoors or arranging for a sober driver when socializing in environments where alcohol may be present.³¹

When addressing opioid and other substance use, harm reduction is an evidence-based approach aimed at minimizing the potential harms of the opioid epidemic for individuals and the wider community.³² When implemented effectively, harm reduction strategies save lives and prevent future substance use.

The Madison County Council on Alcoholism and Substance Abuse, Inc. (BRiDGES) has spearheaded local initiatives related to harm reduction for many years, including programs that support safe disposal along with access to naloxone and fentanyl test strips. In 2023, Madison County Public Health became a registered opioid overdose prevention program in order to distribute and train community members on naloxone.

Safe Disposal Programs

Safe disposal refers to the ways in which most unused or expired medicines can be properly disposed of with the goal of reducing accidental use, intentional misuse, and potential environmental damage.

In Madison County, there are several permanent kiosks for safe medication disposal available year-round. Full list of locations available on the Madison County Solid Waste Department website: www.madisoncounty.ny.gov/2392/Pharmaceutical-Waste.

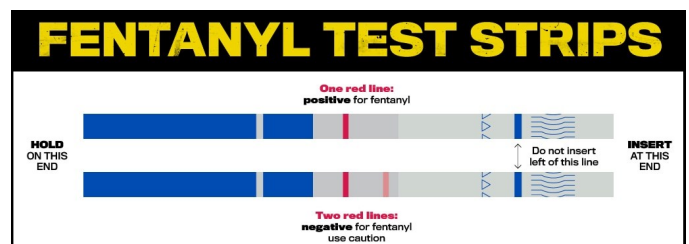
Community members may also contact BRiDGES at 315-697-3947 to receive a Detera bag for safe, at-home disposal. Lastly, community members can participate in a bi-annual Drug Take Back Day events hosted by BRiDGES and local law enforcement agencies.



Fentanyl Test Strips

One major concern with fentanyl is its presence in other drug supplies, including counterfeit pills, which poses a risk of unknowingly consuming the substance and overdosing.³⁰

To address this issue, BRiDGES offers fentanyl test strips (FTS) to residents as part of their harm reduction services. FTS is a low-cost harm reduction tool that detects fentanyl in various drugs (cocaine, methamphetamine, heroin, etc.) and forms (pills, powder, injectable).



For access to drug testing supplies and harm reduction kits, please contact BRiDGES at 315-697-3947.

Naloxone Use

Naloxone (commonly referred to by the brand name, Narcan®) is a life-saving drug that can reverse the effects of an opioid overdose, including heroin and fentanyl.³³ Narcan® is non-addictive and the training of community members on how to administer it can help reverse opioid overdoses and support efforts by emergency medical services (EMS) to save more lives.³³

In New York State, regulations require that naloxone administration is reported and this information is made available to the public. In Madison County, law enforcement and EMS providers have been the primary source for naloxone administration. In addition, BRiDGES began distributing and training community members on naloxone in 2016, and formally became a community opioid overdose prevention program in 2020.

Between 2019 to 2021, there was a consistent rise in the number of doses administered in Madison before it began to taper off in 2022. In 2023, there was a further decrease of 26%, culminating in a total of 49 doses administered (Figure 11). Among the entities involved, EMS organizations remained the main administrators of naloxone.

In 2022, Madison County Public Health and BRiDGES started a joint initiative to distribute wall-mounted boxes to house emergency-use naloxone throughout the county. As a result of this collaboration, 70 boxes have been installed throughout the community. BRiDGES has trained or recertified 1,287 individuals to respond to an opioid overdose using Naloxone. Since becoming an opioid overdose prevention program, MCPH staff have equipped 87 community members and employees in naloxone administration.

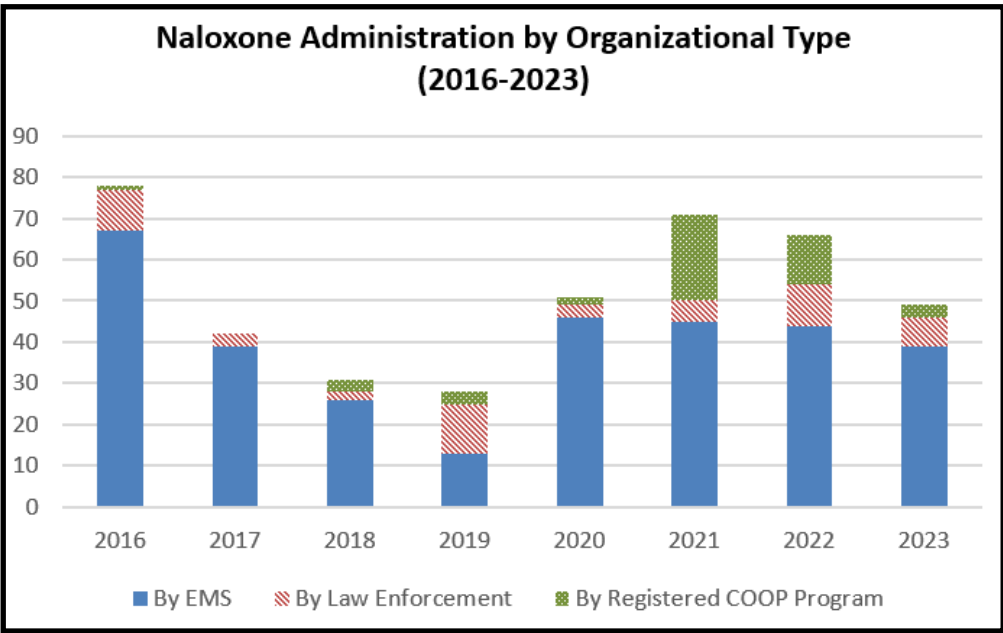


Figure 11. Naloxone Administration in Madison County by Organizational Type, 2016-2023. Source: NYSDOH, County Opioid Quarterly Report For Counties Outside of New York City.¹⁰ Accessed: May, 2024.

Notes: Naloxone data reflects the county in which the overdose occurred and naloxone was administered—not necessarily the county of the overdosed person’s residence. Although reporting naloxone administration is mandated under regulation, all data is self-reported and may be incomplete. COOP – Community Opioid Overdose Prevention.

Treatment and Harm Reduction Efforts

Opioid-Related Treatment Facility Admissions

Nationally, 48.7 million individuals aged 12 and above had a substance use disorder (SUD) in 2022, with 13.1 million (27%) receiving treatment.³⁴ In the same year, just 6.4% of New York State's 2.8 million individuals aged 12 and older with a SUD received treatment through programs overseen by the New York State Office of Addiction Services and Supports (OASAS).³³ Among these individuals, approximately 41% received treatment at an OASAS certified opioid treatment program.³⁵

The number of Madison County residents admitted to an OASAS certified opioid treatment program peaked in 2016 and has declined annually since then (Figure 13). Since 2016, an average of 97% of Madison County residents who received treatment for opioids at an OASAS-certified program went outside the county.

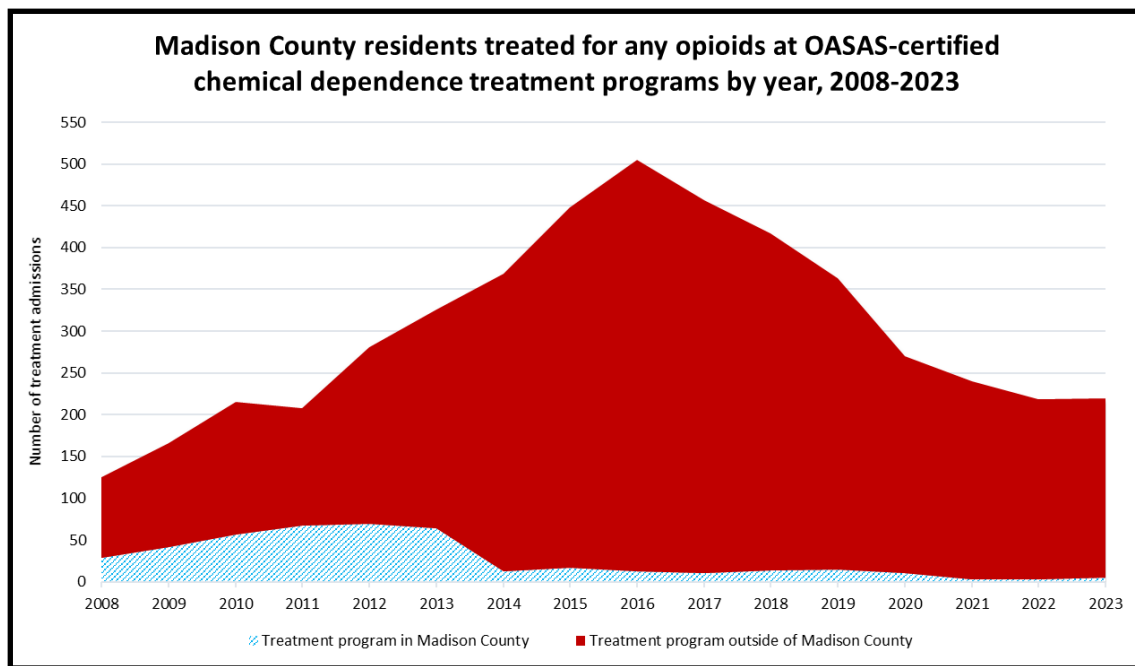


Figure 13. Admissions rates to OASAS-certified treatment programs for use of heroin and/or any opioid (2008-2023). Source: NYSDOH, OASAS Data Warehouse.²⁴ Note: Treatment admissions are not a unique count of individuals. *Individuals may be admitted more than once in a given year. Requested: May, 2024.

Conclusion

Madison County's progress in combating opioid misuse and reducing overdoses is attributed to the several local organizations that work hard to address the issue through evidence-based practices. Despite progress, challenges remain, particularly with the growing national concern over polysubstance use. The community's dedication to prevention and recovery efforts has shown promising results, highlighting the importance of continued investment in comprehensive strategies. Moving forward, future reports will continue to share information on emerging trends and innovative local efforts.

Appendix A. Data Tables

Table 1. Overdose Deaths — Madison County

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
All opioid overdoses*	4	4	8	7	14	3	11	4	10	15	14	13
Heroin overdoses	1	1	3	2	9	0	8	1	2	2	2	1
Overdoses involving opioid pain relievers	3	3	5	7	11	3	9	4	10	14	13	12

*Indicators are not mutually exclusive. Decedents and patients may have multiple substances in their system. Thus, overdoses involving heroin and overdoses involving prescription opioid pain relievers will not add up to the overdoses involving all opioids.

Source: 2010-2013 — NYSDOH Vital Statistics; 2014-2021 — NYSDOH, New York State County Opioid Quarterly Reports.¹⁰ Accessed: July, 2024.

Table 2. Hospitalization and Emergency Department Visit Rates (per 100,000 population) for Overdoses Involving Any Opioid

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Hospitalizations rate															
Madison County	8.6	s	9.5	12.4	12.4	16.6	11.1	22.3	14.0	s	14.7	11.8	s	s	2.9
CNY	13.6	14.8	16.1	16.7	18.6	17.4	18.6	21.1	16.3	14.1	13.6	16.2	14.9	13.5	9.8
NYS (excl. NYC)	13.0	14.3	16.1	16.2	16.9	17.3	16.7	16.9	17.4	15.1	13.7	14.0	13.8	12.6	3.1
Emergency department rate															
Madison County	s	13.6	9.5	12.4	26.2	51.1	45.9	73.8	37.9	47.9	31.0	47.9	33.8	32.4	18.3
CNY	12.9	14.9	17.5	22.5	32.3	37.4	53.8	89.9	66.1	59.8	61.7	55.9	52.4	42.2	7.4
NYS (excl. NYC)	11.7	13.2	15.8	18.0	25.0	30.2	41.0	59.4	64.4	53.0	49.0	53.3	55.6	47.8	10.5

s: Data for indicator are suppressed for confidentiality purposes if there are less than 6 discharges.

Source: NYSDOH, New York State County Opioid Quarterly Reports.¹⁰ Accessed: July, 2024.

Table 3. Opioid Analgesic Prescription Age-Adjusted Rate (per 1,000 population)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Madison County	698.4	687.5	640.4	580.0	528.1	478.1	433.9	398.3	401.4	496.9
Central New York	630.3	612.9	561.9	509.9	454.6	414.5	377.4	355.4	335	407.2
NYS (excl. NYC)	543.6	537.6	496.2	453.1	407.5	372.7	342.6	329.6	303.1	372.7

Source: NYSDOH, New York State Opioid Reports.¹⁹ Accessed: July, 2024.

Table 4. Drug Sales (Kilograms of Opioid Pain Relievers Sold per 100,000 population)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CNY	47.5	50.2	52.4	53.2	51.5	48.6	45.6	44.5	38.9	34.1	19.3*	28.3	30.1	29.0	27.7	27.3
NYS	39.7	41.9	42.9	44.3	42.4	40.0	38.4	38.6	35.7	31.8	27.4	24.9	22.7	22.2	19.7	18.6

Drug sales data collected for: CNY zip codes 130XX-135XX; New York statewide; and drugs: Codeine, Fentanyl, Hydrocodone, Hydromorphone, Meperidine (Pethidine), Methadone, Morphine, and Oxycodone. Source: Automated Reports and Consolidated Ordering System (ARCOS).²²

*Sales of oxycodone was excluded from CNY total in 2018 . Accessed July, 2024

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