

BUFFALO OPIOID INTERVENTION COURT

Final Evaluation Report - Summary

June 2021



Submitted to
**National Drug Court Institute and
the Bureau of Justice Assistance**



Submitted by
NPC Research

For questions contact:
Shannon Carey, Ph.D.
carey@npresearch.com



This project was supported by grant number 2016-MU-BX-K004 awarded to the National Association of Drug Court Professionals by the Bureau of Justice Assistance. The National Association of Drug Court Professionals contracted with NPC Research to conduct an independent analysis of the Buffalo OIC.

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Note: Rearrest information used in this study includes data provided by the New York State Division of Criminal Justice Services (DCJS). DCJS requires the following statement: “This data is provided by the New York State Division of Criminal Justice Services (DCJS). The opinions, findings, and conclusions expressed in this publication are those of the authors and not those of DCJS. Neither New York State nor DCJS assumes liability for its contents or use thereof.”

BUFFALO OPIOID INTERVENTION COURT: AN ANSWER TO THE OPIOID EPIDEMIC

In 2016, Erie County had the highest rate of opioid-related deaths of any county in New York (approximately 30 per 100,000 residents). With a population of just under 1 million, this rate translates to approximately 300 lives lost to opioid overdoses in 1 year. In 2016, the Erie County Opioid Epidemic Task Force implemented several public health responses to overdose fatalities.

As a result, in May 2017 the first opioid intervention court (OIC) was launched in Buffalo, New York. The Buffalo OIC's primary goal is saving lives through:

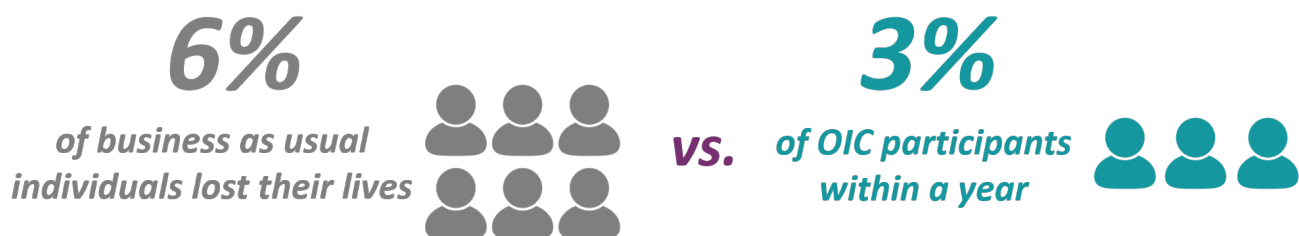
- rapid access to medication-assisted treatment (MAT), and
- supporting stabilization through intensive court supervision, peer support, and drug testing

The OIC is intended as a short term (90 to 120 day) intervention to prevent overdose death and initiate stabilization while the court is determining a participant's case disposition. Although the OIC is not a treatment court, it was designed based on research from treatment courts and includes rapid access to evidence-based treatment services (e.g., MAT, cognitive behavioral therapies for substance use disorders), specialized peer support, intensive case management, and frequent court appearances that include individual conversations with a judge similar to court appearances in treatment courts.

OIC Saves Lives

Evaluation results demonstrate that the Buffalo OIC is succeeding in its primary goal of saving lives. OIC participants were one-third as likely to die in the 6 months after their jail booking and entry into OIC, and half as likely to die within 1 year, compared to opioid users who were booked into the jail but experienced typical "business as usual" (BAU) criminal justice system case processing.¹

Death rates for opioid users in the OIC were cut in half



¹ Note that although the difference in death rate is substantial, these results were not statistically significant, most likely due to the relatively small numbers of deaths overall in the full sample. See the full appendix for details [<https://npcresearch.com/publication/buffalo-oic-process-outcome-and-cost-evaluation-full-study-detailed-report/>]

TAKING OICS TO SCALE USING RESEARCH & EVALUATION

The National Drug Court Institute, under a grant from the Bureau of Justice Assistance, contracted with NPC Research to conduct a process, outcome, and cost evaluation of the Buffalo OIC as a promising model to address the opioid crisis. This report highlights the main findings of the comprehensive evaluation, including how the program was implemented and its effectiveness at meeting the *Essential Elements*; the OIC participant profile; and whether the OIC met its goals to provide intensive court supervision, connection to treatment and peer support, and save lives. In addition, the economic impact of the OIC was evaluated through a detailed cost-benefit analysis. Key outcomes for OIC participants (N = 326) were measured against a matched “business-as-usual” (BAU) comparison group of defendants who also used opioids and who had been arrested and booked in jail prior to the start of the OIC (N = 326). The BAU comparison group was matched to the OIC participants (using propensity scores) on demographics and clinical assessment information (substances used, socioeconomic characteristics, etc.) as well as criminal history and substance use disorder treatment histories. The detailed appendix² presents a thorough overview of all research methods and findings, as well as documentation of the data used for this study and the study limitations. Key limitations of the study including missing and incomplete data, other interventions addressing the opioid epidemic that were occurring in Buffalo simultaneous to OIC implementation, and typical rapid fluctuations in opioid and other drug use (and associated overdose rates) that occur over time, all of which could potentially impact the interpretation of the main findings of this study, particularly the death rates in the historical comparison group compared to the OIC participants.



² See <https://npcresearch.com/publication/buffalo-oic-process-outcome-and-cost-evaluation-full-study-detailed-report/>

OIC Succeeds in Facilitating Rapid Access to Services

Given the serious nature of opioid use disorder (OUD), the Buffalo Opioid Intervention Court measures successful intake in terms of hours. While many of the program features are similar to the traditional treatment court model (e.g. assessment, referral to evidence-based treatment, judicial contact, case management), what is significantly different about the OIC model is the immediacy of the brief screening³ completed in the jail the day of the arrest. If the defendant agrees to participate, they are brought before the judge for entry into the program within hours of arrest. At their first appearance in OIC, participants are walked to a mobile treatment van for clinical assessment and referral to MAT (buprenorphine, methadone, or naltrexone). Individuals receive rapid referral to treatment, other wraparound services, intensive monitoring, and peer support, along with daily court appearances and regular drug testing.

Sample Timeline for OIC Entry

- 1:00am**  Law enforcement contact & arrest
- 7:00am**  Brief OUD screening in jail
- 7:30am**  Screening results forwarded to clerk for first court appearance
- 8:00am**  Client meets with coordinator for explanation of OIC program
- 9:30am**  Appearance before OIC judge & connection to peer recovery support and defense attorney
- 12:00pm**  Assessment by mobile nurse and tele-med doctor evaluation
- 1:30pm**  Transferred to physical medical building for MAT
- 3:00pm**  Referral to services by peer recovery support specialist

Buffalo OIC Mobile Van



Buffalo OIC Peer Support Specialist inside the Van



³ <https://npcresearch.com/wp-content/uploads/RODS-Validation-INSTRUMENT-JCHC-072513.pdf>

Most OIC participants were assessed and had their first OIC court appearance within one day

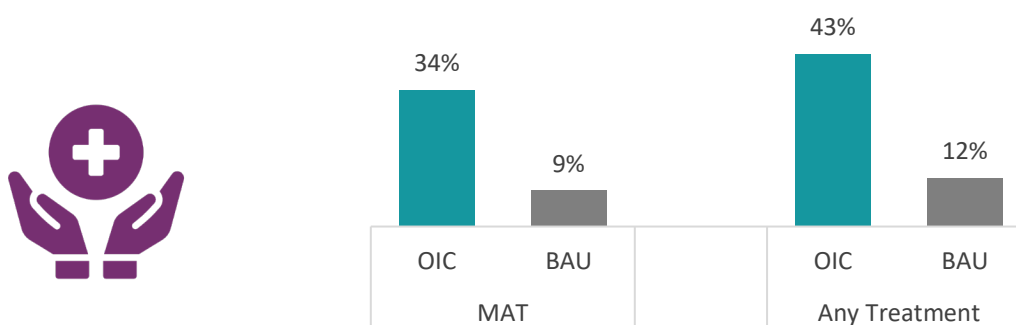
The median number of days between jail booking and the first court appearance was 1, meaning the majority of participants appeared in court the same day.



OIC participants connected with treatment significantly sooner than business-as-usual defendants with opioid use disorder

Participants are referred to treatment from the mobile van, and these referrals result in access sooner when compared to business as usual (BAU) court processes. Within 2 weeks of their jail booking, 24% of OIC participants engaged in MAT and 30% engaged in other forms of treatment, compared to less than 4% of individuals who experienced business-as-usual court services. At 30 days from their booking, nearly half of OIC participants had engaged in some form of treatment (including MAT) compared to just 12% of business-as-usual.

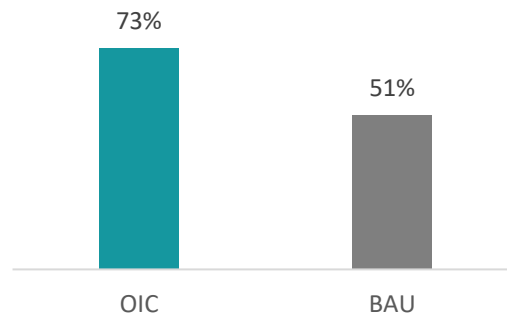
Significantly more OIC participants received treatment within 30 days of booking



Significantly more OIC participants engaged in treatment compared to business-as-usual defendants prior to OIC

Over 70% of all OIC participants entered substance use disorder treatment (including two-thirds receiving MAT) within 6 months of their jail booking compared to 51% of business-as-usual court processes. In addition, participants were referred sooner and were able to engage in treatment more swiftly, with a median number of 30 days between booking and the start of treatment compared to a median of 5 months for business-as-usual. Over 80% of OIC participants had engaged in treatment within 1 year of OIC entry.

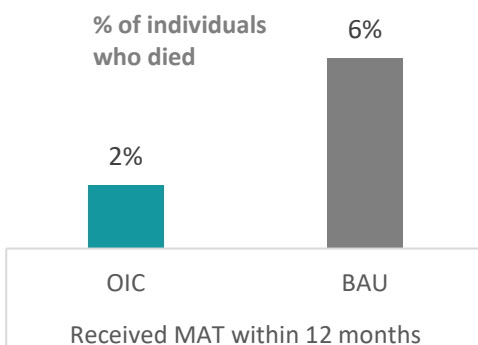
73% OIC participants engaged in treatment within 6 months of booking compared to 51% of business-as-usual



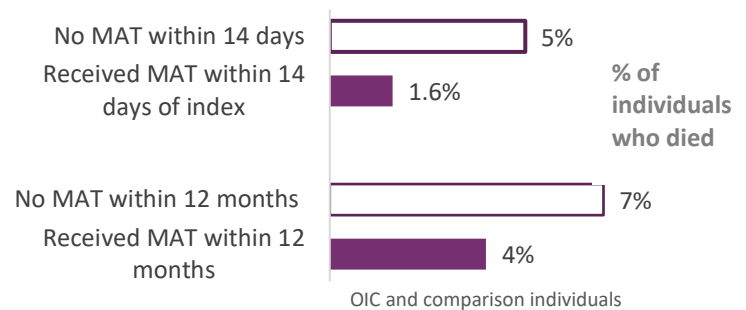
OIC plus MAT saves lives and MAT sooner is better

Regardless of whether or not they were OIC participants, individuals who received MAT within 14 days of their jail booking were less likely to die in the following 12 months than those who received MAT sometime later in that same 12-month period. For those in the OIC, participants who received MAT were one-third as likely to die than those who did not receive MAT.

OIC participants on MAT were less likely to die than BAU who received MAT



Individuals booked into the jail who received MAT sooner were less likely to die regardless of whether they were in the OIC



Overdose Death Rates and Emergency Department Visits Decreased in Western New York after OIC Implementation

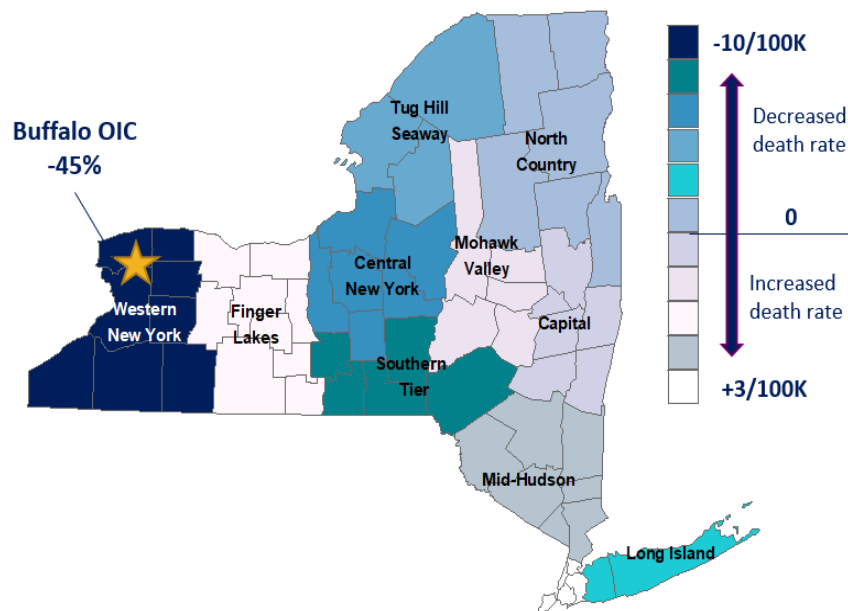
Opioid-related deaths decreased in Buffalo's region after OIC implementation more than any other area of New York



Since 2016, opioid-related overdose (OD) deaths have sharply declined in Erie County (where Buffalo is located). The number of OD deaths per 100K population fell 45% from 30 in 2016 to 16 in 2018. The largest change occurred between 2017 and 2018 (a decrease of 45%), following the implementation of OIC. Other regions in NY that implemented public health responses, including distribution of Naloxone and training in its use, also saw decreases in death rates, though not as large as in Western New York and in Erie. The Western NY region, including Erie County, decreased by 35% during the same time

period, outpacing all other regions in the state. While New York State in its totality saw a decrease in the number of OD deaths, Erie County saw the most notable differences and led the overall trend.⁴

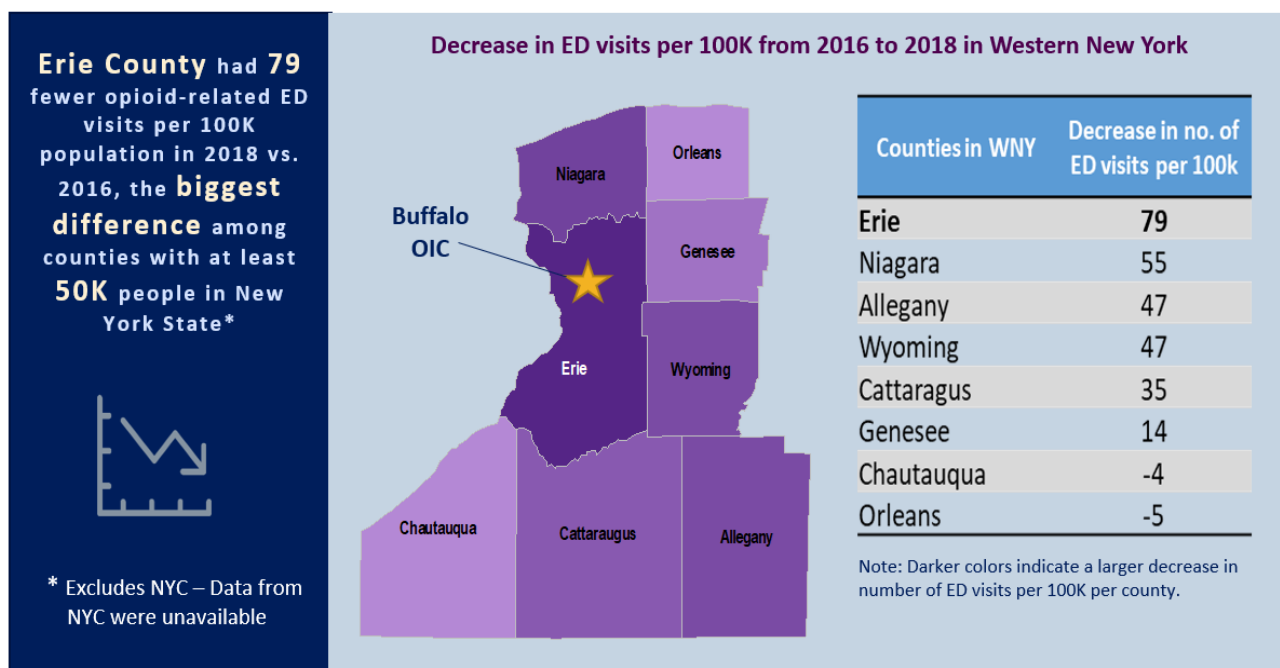
While some jurisdictions have attributed decreases in OD death rates to the increased use of Naloxone and other life-saving interventions, the larger decrease in death rates in Erie, where the holistic approaches used by the Erie County Opioid Epidemic Task Force were combined with the implementation of the Buffalo OIC, provide support for the idea that these additional steps to coordinate care in the criminal justice population may result in a substantial combined impact.



⁴ There were 10 fewer deaths in the Western region per 100K population between 2016 and 2018, the most of any region in New York. In Erie County, the decrease was even greater, at 14 fewer deaths per 100K.

Opioid-related emergency department visits decreased more in Erie County than any other county in Western New York

Emergency department (ED) visits related to opioid use are an important marker for a community's response to the opioid epidemic. In addition, since ED visits can be expensive (~\$5K-\$9K per visit according to a NIH study), these numbers also reflect the high cost of opioid addiction to our health care system and communities. While Western New York and New York State saw substantial drops in the number of ED visits from 2016 to 2018, the decrease in Erie County (where the Buffalo OIC was implemented in 2017) was nearly double the region-wide and state-wide numbers, indicating the possibility that the Buffalo OIC has had an impact over and above other efforts to combat the opioid epidemic in the region and in the state.

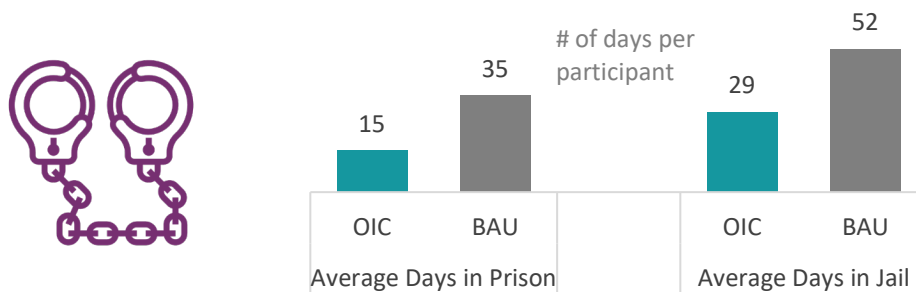


OIC Participants Have Lower Recidivism

OIC participants spent less time incarcerated

While reduced recidivism is not the immediate goal of the OIC, past research has demonstrated that engagement in treatment can impact recidivism.⁵ OIC participants were compared to business as usual on a variety of recidivism outcomes, including rearrests, reconvictions, and any associated incarceration sentences.

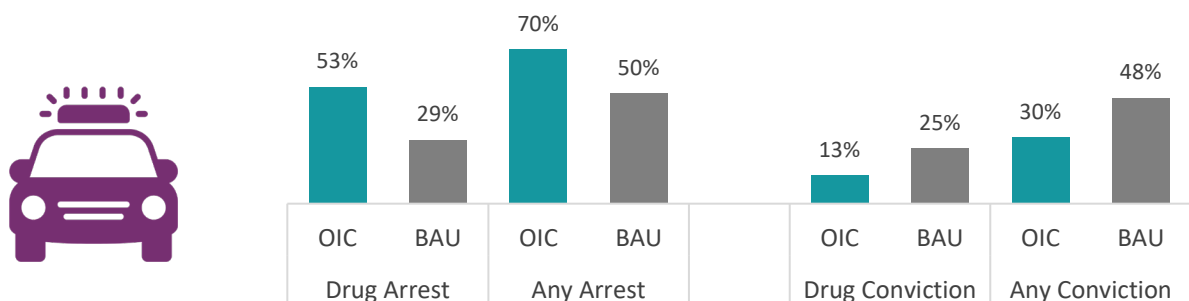
OIC participants spent significantly fewer days in prison and in jail in the year after jail booking/OIC entry



OIC participants were more likely to be re-arrested, but less likely to be convicted

The percent of individuals rearrested was markedly higher for OIC participants than for the business-as-usual group at 12-months post booking. However, reconvictions show the opposite trend, with OIC participants receiving substantially fewer convictions.⁶ The high rearrest rates are possibly due to OIC warrants. Law enforcement works with the OIC to actively look for OIC participants with an active warrant and bring them back to see the OIC judge.

One year from booking, a significantly higher percentage of OIC participants were rearrested but a significantly lower percentage were convicted for any charge and for drug charges



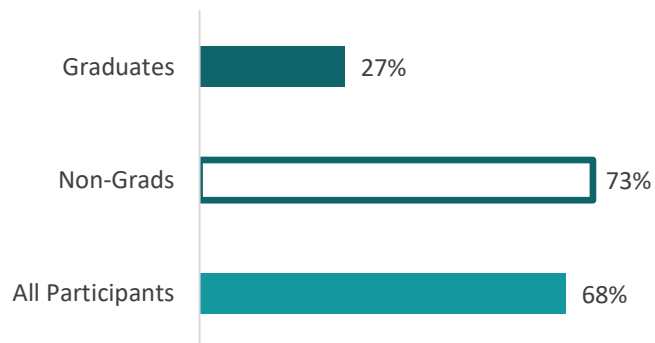
⁵ E.g., Finigan, M. (1995) and Belenko, S., Hiller, M., & Hamilton, L. (2013)

⁶ Although participants who did not have a full year of outcome data available were removed from the analysis, a possible reason for the lower number of convictions could be due to a time lag between the arrest and conviction in the DCJS arrest data.

Warrant and re-arrest numbers suggest law enforcement is actively finding participants who abscond, and bringing them back to treatment

When participants fail to appear, law enforcement is dispatched to find them and bring them back to the court, where they may be rebooked into the jail briefly until the next daily court session. The percentage of OIC participants rearrested (70%) nearly exactly matches the percentage who were on warrant (68%) during the program. Active warrants are intended as a life-saving measure to ensure that the participants stay engaged in the OIC. As reconvictions are considerably lower for OIC participants, the high numbers of arrests suggest warrants as a plausible reason rather than criminal activity.⁷ The OIC's notable success engaging participants in treatment may be having a "side effect" of decreasing criminal recidivism in addition to the intended impact of saving lives.

More than two-thirds of OIC participants are put on warrant status at some point during the program



OIC participants who did not successfully complete the OIC program had more warrants than those who completed it. Although law enforcement actively searches for participants and brings them back before the OIC judge, some participants may not be ready to address their substance use disorder or may have other reasons for struggling to engage in the program and will continue to abscond.

⁷ The arrest data from DCJS only includes arrests for new charges, so if the arrests that occurs due to warrants are not recorded as new charges, then the higher rearrest rate may not be attributable to OIC warrants..

OIC Saves Money

For every taxpayer dollar invested in the OIC program, there is a return of \$5 taxpayer dollars

The costs of the program were assessed as well as the extent to which program costs were offset by any cost-savings related to participant outcomes.⁸ The cost for investing in the OIC was low, at only \$1,482 per OIC participant, and the taxpayer savings (or cost-offsets) were high at over \$7,000 per participant due largely to OIC participants spending less time incarcerated and using less publicly funded (and more privately funded) treatment. This result yields a cost-benefit ratio of 1:5. That is, for every taxpayer dollar invested in the OIC program, there is a return of \$5 after just 1 year.



Societal cost savings related to fewer deaths were over \$300,000

When societal costs⁹ (privately-funded treatment, victimizations, and deaths) were added to the taxpayer savings, the return after 1 year increased significantly, to \$301,744 per participant. These results suggest substantial savings for families, employers and society as a whole. If OIC participants continue to have positive outcomes in subsequent years, then these savings can be expected to continue to accrue and get even higher over time.

Societal Savings = \$301,744 per participant

⁸ The same program and comparison groups used for the outcome evaluation were used for the cost analysis.

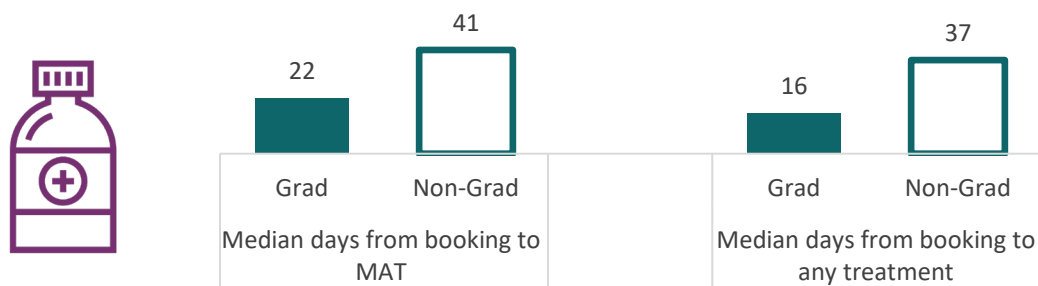
⁹ We are defining societal costs as costs that impact members of society that are not specifically covered by public funds such as privately funded treatment, costs paid for by victims of crimes and costs to the family and employers for lives lost.

Participants Who Successfully Complete the OIC Provide Insights Into Potential Improvements

Participants who successfully completed OIC engaged in treatment sooner

One of the OIC goals is to connect participants with treatment swiftly. The program has partnerships with treatment providers who assist them with this goal, ensuring that treatment slots are held available for OIC participants. Referrals to treatment frequently happen in the mobile van after a participant's first court session. The median amount of time to any treatment for OIC participants is just over 3 weeks (24 days). This indicates that the OIC should continue to strive for the warm hand off from referral to treatment to assist participants in getting into treatment sooner.

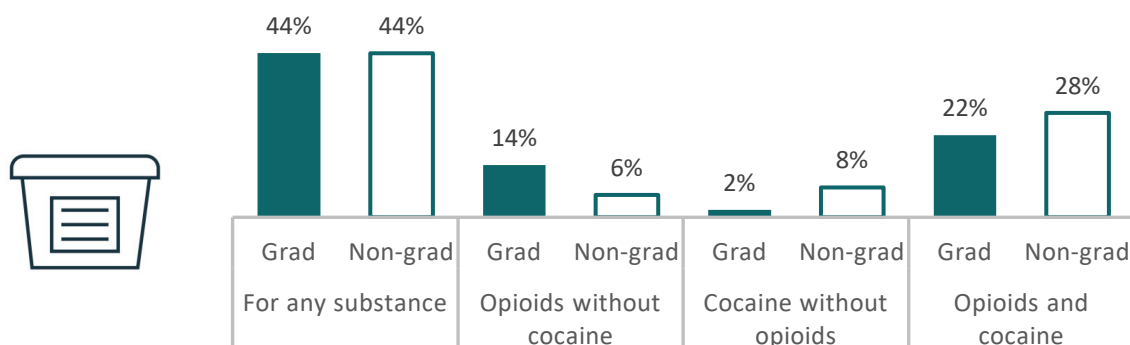
The number of days between jail booking and treatment engagement is shorter for graduates than for non-graduates



Cocaine use in addition to opioids presented further challenges for participants

Participants who were tested positive for opioids alone were more likely to complete OIC successfully (graduate) while participants who tested positive for cocaine alone, or cocaine in combination with opioids, were less likely to complete successfully. OIC participants may benefit from the OIC adding services to address cocaine use as well as opioids.

Participants who tested positive for cocaine in the first month were less likely to graduate



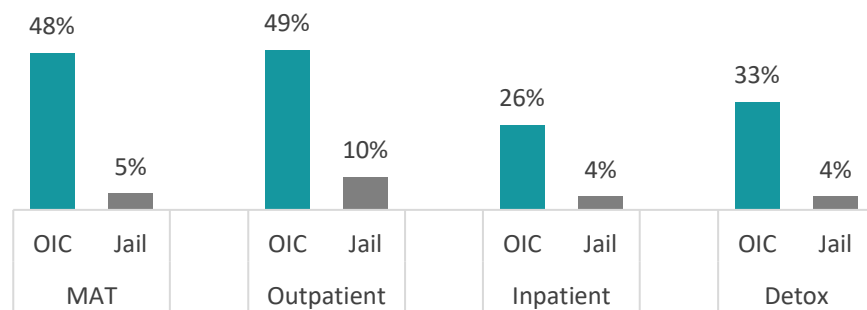


A Comparison to the General Jail Population Highlights Unique Characteristics of OIC Participants

OIC participants were more likely to have received prior treatment for substance use disorders compared to other participants in the jail

A much larger proportion (more than 5 times the number) of OIC participants had received substance use disorder treatment prior to their booking compared to the rest of the jail population.

The percent of OIC participants who received prior treatment of any modality was significantly higher

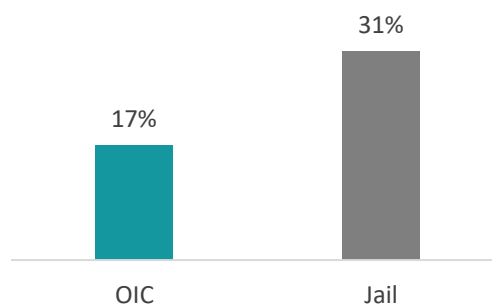


OIC participants were more likely to have a history of trauma, have parents with substance use disorders, have indications of a mental illness, and be unemployed than others in the jail

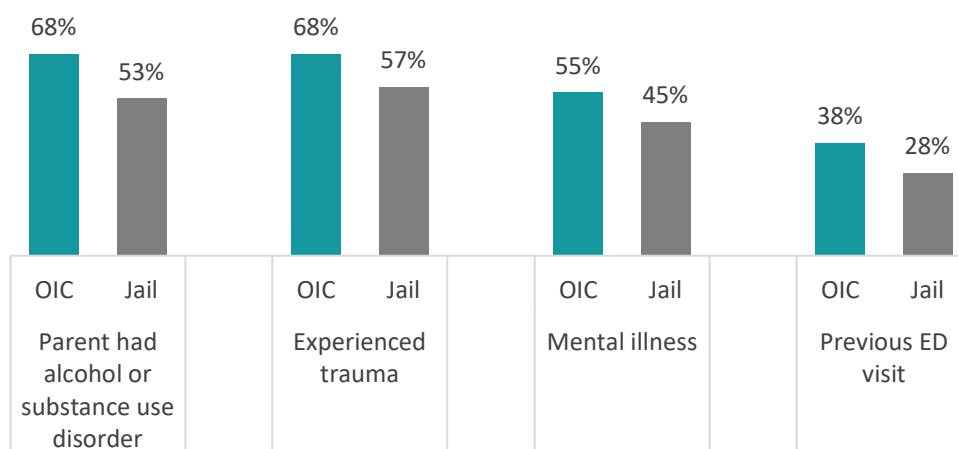
Assessment results for OIC participants and other individuals in the jail revealed that OIC participants were less likely to be employed or have an income than other individuals in the jail population. OIC participants were more likely to have a parent with a substance use disorder, experienced trauma, been treated for a mental illness, and visited an ED.



A significantly smaller percentage of OIC participants were employed compared to others in the jail



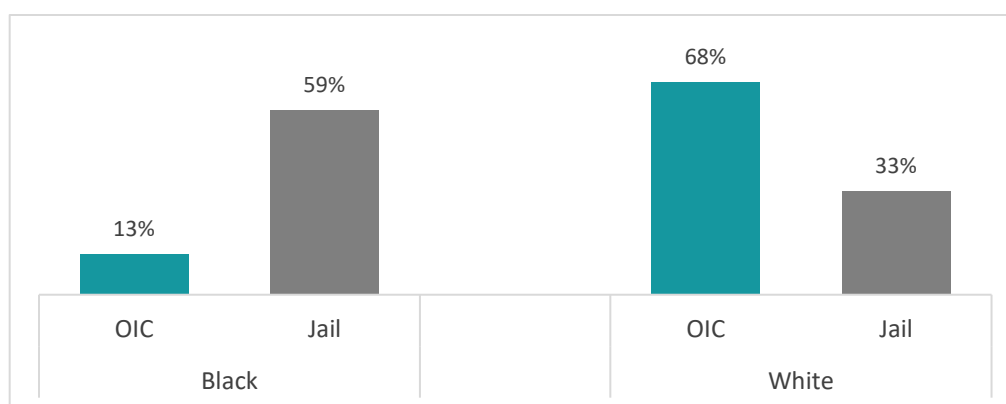
A higher percentage of OIC participants had social and health issues compared to other individuals in the jail



OIC participants were more likely to be White and less likely to be Black than the rest of the jail population

White individuals were vastly overrepresented in the OIC compared to the rest of the jail population. Although on the surface this looks like a gross disparity, an examination of statistics from the New York State Opioid Annual Report¹⁰ revealed that between 2016 and 2018 the rate of opioid-related emergency department (ED) visits, opioid-related overdoses, and opioid-related overdose deaths in the State of New York for individuals who were White was more than double that for individuals who were Black, indicating that OIC demographics may reflect the demographics of the opioid-using population overall.

The percent of OIC participants who are White is significantly higher and the percent who are Black is significantly lower than the rest of the jail population



OIC participants were typically single, White, unemployed males over 30 – with extensive substance use disorders and trauma histories

Assessment results showed that most OIC participants had prior drug arrests, roughly half had been arrested and used substances before age 18, and half had been to the ED for opioid-related issues. Most had prior substance use disorder treatment. Just under 80% of this population was unemployed, and nearly half had not completed high school. Roughly two-thirds reported experiencing trauma and had parents with substance use disorders.

¹⁰ <https://www.health.ny.gov/statistics/opioid/>

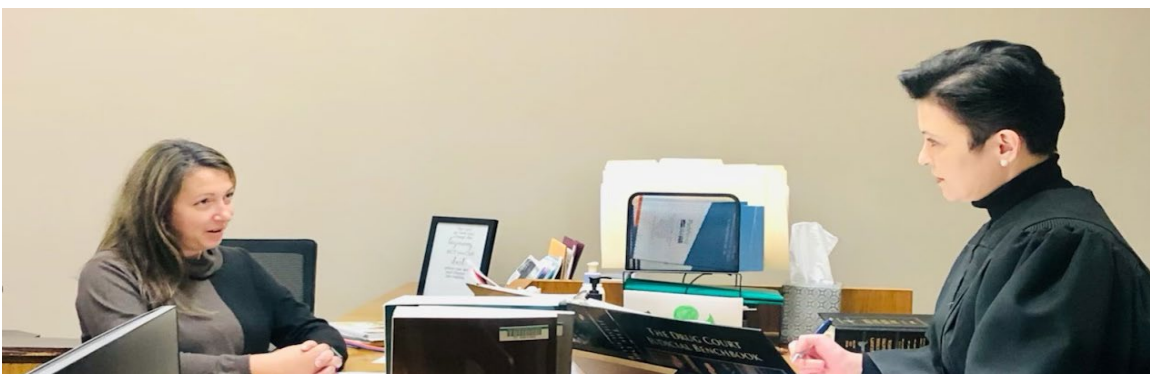
Conclusion: Essential Elements for Opioid Intervention Court Success

Widespread diversion and misuse of prescription opioid pain relievers in the United States has escalated to a public health crisis. In addition, the use of heroin and synthetic opioids like fentanyl continue to damage communities, as fentanyl is increasingly manufactured illicitly, mixed with other drugs, and imbibed by users without their knowledge. Since 1999, the number of overdose deaths involving opioids has more than quadrupled,¹¹ and National Institutes of Health data show that on any given day, 128 Americans die from an opioid overdose.¹²

The opioid epidemic has devastating consequences for the health of individuals and communities, including increased rates of infectious diseases, neonatal syndromes, and mortality.¹³ The crisis also impacts social and economic welfare: The Centers for Disease Control and Prevention estimate that the costs of health care, lost productivity, addiction treatment, and criminal justice involvement related to prescription opioid misuse combine to create an economic burden of \$78.5 billion per year in the United States.¹⁴ The opioid epidemic places new pressures on an already overburdened criminal justice system, impacting law enforcement, jails, and courts. Not only have caseloads increased due to new charges, courts must also grapple with the unique treatment and stabilization needs of opioid users. The need for a new way of addressing these devastating consequences from the opioid epidemic is breathtakingly evident.

The Buffalo OIC provides a clear example of an effective intervention. The Buffalo OIC saves lives. This evaluation demonstrated that the death rate for OIC participants was cut in half compared to other defendants with opioid use disorders who were booked into the jail before the OIC was implemented. OIC participants had significantly lower conviction rates, spent less time incarcerated and saved over \$300,000 in costs to society per participant.

A replication of this intervention in other jurisdictions is already underway in New York and in other states. Resources, including a framework in the form of *Essential Elements of Opioid Intervention Courts*, and a how-to manual on developing an OIC are currently available.



¹¹ <https://www.drugabuse.gov/drug-topics/trends-statistics/overdose-death-rates>

¹² HEAL Initiative Research Plan (NIH, June 2018)

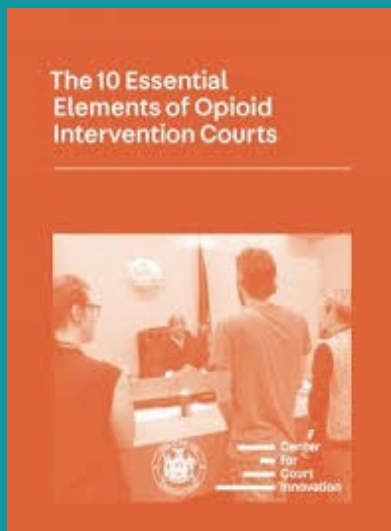
¹³ Retrieved from <https://www.drugabuse.gov/drug-topics/opioids/opioid-overdose-crisis>

¹⁴ As Opioid Use Disorders Increased, Prescriptions for Treatment Did Not Keep Pace (NIDA Notes, July 2018)

Resources for building new opioid intervention courts

The 10 Essential Elements of Opioid Courts. During the summer of 2019, the Center for Court Innovation, with funding and support from the Bureau of Justice Assistance, convened a diverse working group of national experts including researchers, substance use treatment providers, addiction scientists, medication assisted treatment providers, physicians and other public health experts. This group, in partnership with the Buffalo OIC and the New York Unified Court System, developed the *10 Essential Elements of Opioid Intervention Courts*.¹⁵ The *10 Essential Elements* provide a description of the key elements, based on existing evidence, that define an opioid intervention court with the intention of providing a framework for other jurisdictions to follow in implementing an OIC.¹⁶

10 ESSENTIAL ELEMENTS OF OPIOID INTERVENTION COURTS



1. Broad legal eligibility
2. Immediate screening for risk of overdose
3. Informed consent after consultation with defense counsel
4. Suspension of prosecution or expedited plea
5. Rapid clinical assessment and treatment engagement
6. Recovery support services
7. Frequent judicial supervision and compliance monitoring
8. Intensive case management
9. Program completion and continuing care
10. Performance evaluation and program improvement

¹⁵ https://www.courtinnovation.org/sites/default/files/media/documents/2019-07/report_the10essentialelements_07092019.pdf

¹⁶ For more information, the Appendix of this report includes a description of the full evaluation for the Buffalo OIC including a process evaluation of the Buffalo OIC within the framework of the 10 Essential Elements.

HOW TO IMPLEMENT AN OPIOID INTERVENTION COURT



DECEMBER 2020



For questions contact:
Shannon M. Carey, Ph.D.
NPC Research
carey@npcresearch.com

How to Implement an Opioid Intervention Court (How-To Manual).¹⁷ NPC Research, based on the research performed during this evaluation of the Buffalo OIC, and with the assistance of BJA funds, developed an opioid intervention court “how-to manual.” In *How to Implement an Opioid Intervention Court*, courts and communities are encouraged to fully explore the possibility of an opioid intervention court in their jurisdiction. The manual provides lessons learned from the Buffalo model and, using the framework of the *Essential Elements*, provides step-by-step instructions for developing an opioid intervention court. The manual provides links to training and other resources (including materials that can be modified as needed), to outline and assist the process of implementing an opioid intervention court as efficiently and effectively as possible.

¹⁷ https://npcresearch.com/wp-content/uploads/How_To_Manual-Opioid-Intervention-Court-May-2021-FINAL.pdf