

Staten Island Needs Assessment: Opioid Addiction Prevention and Treatment Systems of Care



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Needs Assessment of the Opioid Addiction Prevention and Treatment Systems of Care on Staten Island, NY

According to the Office of the Special Narcotics Prosecutor (SNP) for the City of New York, accidental overdose involving opioids is now the “leading cause of preventable death in New York City, taking more lives each year than homicides and traffic accidents combined.”¹ Staten Island, the least-populous and most suburban borough within New York City, was particularly hard hit by these overdoses as a result of an ongoing opioid crisis. As such, public officials and community organizations on Staten Island are eager to determine the gold standard of opioid addiction care to prevent future deaths.

During the past 10 years, the opioid crisis on Staten Island has taken the lives of hundreds of people and impacted the lives of countless family members, friends, coworkers, and acquaintances. These deaths are part of a larger problem; many more in the borough are currently struggling with opioid use disorder, more commonly known as opioid addiction, but have not yet sought help. There have been some high-profile cases on Staten Island in recent years, such as the woman who died of an overdose while eight months pregnant,² or the overdose that occurred in the bathroom of the Staten Island Ferry.³ These stories strike to the core of the often sleepy communities of Staten Island. The causes of, and reasons for, the opioid epidemic's persistence are myriad. Our research seeks to unlock them.

To find and address the gaps in opioid addiction treatment and care in the borough, our Columbia University capstone team worked closely with the Richmond County District Attorney's Office (RCDA), the Staten Island Partnership for Community Wellness (SIPCW), and the Office of the Special Narcotics Prosecutor for the City of New York (SNP). Through semi-structured interviews with key stakeholders, analysis of relevant demographic information (e.g., per capita income and race), and treatment data, we assessed the scope of the available substance misuse prevention and treatment services.

This report summarizes our findings from these interviews and provides a map of current overdoses and existing services available on Staten Island. In this report, we explain the causative and aggravating factors of the crisis such as stigma, information gaps, and possible mental health comorbidities (among others) that led to the rise in opioid overdose deaths. We also present an analysis of the unique roles law enforcement, medical, government, and counseling officials can play in finding and implementing solutions.

¹ Office of the Special Narcotics Prosecutor for the City of New York. *2015 Annual Report*, www.snpsc.org/wp-content/uploads/2016/05/SNP-Annual-Report-2015.pdf.

² Grunlund, Maura. “Sources: Death of ‘Blue Fairy,’ 8 months pregnant, suspected OD.” *SILive*, 02 Mar. 2016, www.silive.com/news/index.ssf/2016/03/cops_possible_overdose_in_blue.html.

³ Liotta, Paul. “Before ferry bathroom OD, she sought help, but: ‘I felt nobody cared.’” *SILive*, 06 June 2016, http://www.silive.com/news/2016/06/woman_who_overdosed_at_ferry_t.html.

Our Team

We are a team of six graduate student researchers at Columbia University's School of International and Public Affairs (SIPA). We come from diverse backgrounds that include medicine, social work, and criminal justice reform.

Myrela Bauman is a dual-degree student with Mailman School of Public Health in the Department of Epidemiology. Previously, she worked at a public policy consultancy in São Paulo, Brazil. She is interested in the intersection between drug misuse and mental health.

Raoul Bhatta is a student of urban policy, focusing on health policy and management. He previously worked as a physician in aviation medicine for the U.S. Army, and seeks to use his policy experience to develop urban health systems.

Erin Kuller is a student of urban policy and management. Prior to graduate school, she worked as a journalist and communications specialist. Her policy focus is criminal justice, with the understanding that public safety is deeply tied to workforce development and education.

Kirsten Kierulf-Vieira is a dual-degree student with Sciences Po Paris who specializes in the intersection between gender and health policy. She is a medical doctor by training and holds a Ph.D. in brain cancer research.

Tricia Wendt is a dual-degree student with the School of Social Work. She comes to this project with experience providing direct support to individuals with severe mental illness and a drive to understand global mental health resource accessibility and stigma.

Mon Yuck Yu specializes in urban policy, management, and communications. She founded a public health nonprofit organization six years ago that aims to close the healthcare gap for low-income, undocumented immigrants in Sunset Park, Brooklyn.

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Our clients, particularly **Michael E. McMahon**, Richmond County District Attorney (RCDA); **Bridget G. Brennan**, Special Narcotics Prosecutor (SNP); **Kati Cornell**, Public Information Director at SNP; **Ashleigh J. Owens**, Special Assistant District Attorney for External Affairs at RCDA; **Andrew Crawford**, Director of the Community Partnership Unit at RCDA; **Adrienne Abbate**, Executive Director at Staten Island Partnership for Community Wellness (SIPCW); and **Jazmin Rivera**, Tackling Youth Substance Abuse Coordinator at SIPCW, who provided us with a wealth of information and contacts to understand not only the crisis, but Staten Island's unique culture, as well.



MICHAEL E. McMAHON

Richmond County District Attorney

Michael E. McMahon was inaugurated as the District Attorney of Richmond County on January 1, 2016. He serves as the chief law enforcement officer on Staten Island.

Recognizing the significant challenges facing Staten Island as an epicenter in the heroin and prescription drug crisis, McMahon has made this issue a central focus for the Richmond County District Attorney's Office (RCDA). McMahon has led multiple takedowns of six dozen drug dealers and created New York City's first Overdose Response Initiative. Under this Initiative, RCDA works with the NYPD to investigate overdose deaths as criminal investigations. In addition, McMahon has been spearheading efforts with the Heroin Overdose Prevention & Education (HOPE) program to expand treatment options and develop and facilitate innovative early diversion opportunities for those suffering from addiction who find themselves in the criminal justice system.

Prior to being elected District Attorney in 2015, McMahon was a practicing trial attorney for 30 years, legal counsel to Assemblyman Eric Vitaliano and Assemblywoman Elizabeth Connolly, and legislative counsel to City Council Member Jerome X. O'Donovan. He served as the City Council Member representing Staten Island's North Shore for eight years before being elected to Congress in 2008. After leaving Congress, he returned to law as a Partner in the international law firm Herrick Feinstein.

McMahon was born and raised in Staten Island and is a graduate of New York University and New York Law School. He and his wife, Judge Judith McMahon, reside in Randall Manor, in the home where they raised their children, Joseph and Julia.

BRIDGET G. BRENNAN

Special Narcotics Prosecutor for the City Of New York

Bridget G. Brennan has been New York City’s Special Narcotics Prosecutor since 1998. Appointed by New York City’s five elected District Attorneys, Ms. Brennan is the first woman to hold that position. Ms. Brennan is in charge of an agency solely dedicated to the investigation and prosecution of narcotics offenses in the five boroughs that comprise New York City.

The Office of the Special Narcotics Prosecutor is widely recognized for its legal and technological expertise. It prosecutes national and international drug trafficking and money laundering organizations, and oversees large-scale operations targeting violent drug gangs in New York City neighborhoods. Increasingly, the office conducts complex investigations into the criminal distribution of heroin, fentanyl, addictive prescription drugs, and related crimes.

Under Ms. Brennan’s direction, the office has developed innovative strategies to stem the flow of drugs into the city and target emerging problems. She established individual units focusing on heroin, prescription drugs, digital forensics, narcotics gangs, money laundering, and related financial crimes. Special Narcotics has a track record of innovation. Long before state law authorized alternative to incarceration courts, Ms. Brennan expanded Special Narcotics programs offering treatment instead of prison to qualified addicted defendants.

Ms. Brennan became a New York County Assistant District Attorney in 1983. While there, she handled misdemeanor and felony prosecutions, including homicides and sex crimes cases in the Trial Division. She served as an interim Director of Public Information and a Deputy Bureau Chief. She was appointed to the Office of Special Narcotics in 1992, becoming Chief Assistant in 1995.

Before her legal career, she was a print, radio, and television reporter in her native Wisconsin, where she graduated from the University of Wisconsin with a B.A. in Journalism. Ms. Brennan also received her law degree from the University of Wisconsin.



Glossary

Addiction: The state of being physically and/or psychologically unable to discontinue performing a habit or behavior, regardless of ongoing adverse consequences.

Analgesic: Drug that provides pain relief.

Behavioral Therapy: A therapeutic modality during which an individual works with a therapist or counselor to help him or her identify and change potentially self-destructive or unhealthy actions.

Benzodiazepine: Class of prescription medications typically used to treat anxiety. Can become a drug of addiction, and is increasingly seen in accidental overdoses.

Buprenorphine: Partial opioid receptor agonist that produces weak morphine-like symptoms. Used in medication-assisted treatment to allow patients to stop using opioids without experiencing withdrawal.

Comorbidity: A medical and/or mental health diagnosis that occurs in the setting of another.

Diversion: Programs that encourage non-carceral solutions to deal with law breaking or arrest.

Detoxification (Detox): A process by which a substance user stops using intoxicating substances to allow his or her body the time to fully clear itself of that substance.

Fentanyl: Synthetic opioid 50-100 times as potent as morphine. Commonly found as an additive in heroin preparations that greatly increases the risk of accidental overdose.

Halfway House: Residence at which addicts in recovery can live in a semi-supervised environment with greater individual freedoms than an inpatient treatment facility. May include participation in daily recovery activities, such as group meetings or counseling.

Harm Reduction: Evolving but widely accepted treatment modality for substance abuse that seeks to reduce the health, social, and socioeconomic risks associated with drug use (whether legal or illegal) without necessarily reducing drug consumption.

Heroin: Strong, rapidly acting opioid receptor agonist that acts on the brain to cause powerful feelings of euphoria. Derived from morphine, it can be snorted, injected, or smoked.

Inpatient: A medical facility that houses patients during treatment.

I-STOP: Abbreviation for "Internet System for Tracking Over-Prescription." Centralized database run by New York State Department of Health – Bureau of Narcotics Enforcement since 2013 to track prescription histories for all controlled substances by patient.

Medication-Assisted Treatment (MAT): A treatment plan for opioid recovery and/or alcohol use disorder that involves the medically supervised use of methadone, buprenorphine, or naltrexone.

Methadone: Synthetic opioid receptor agonist similar to heroin used to decrease withdrawal symptoms for addicts who had stopped using opioids. Administered orally and can be used in medication-assisted treatment.

Mental Illness: A wide range of behavioral and/or physical symptoms, either reported and/or observed, impairing an individual's ability to perform the activities of daily living. Often referred to as Mental Health Disorder.

Naloxone (Narcan): Opioid receptor antagonist that binds and blocks receptor activity. Has been effectively used as an antidote for suspected opioid overdoses, rapidly reversing the respiratory depression that causes death.

Naltrexone (Vivitrol): Synthetic opioid receptor antagonist used in medication-assisted treatment and administered in pill or injectable form. Vivitrol is a branded preparation of naltrexone that is dosed as a once-monthly injectable.

Nonmedical Drug Use: Drug use either without a prescription, or with a prescription in a manner other than prescribed.

North Shore: The general term Staten Islanders use to describe the Northern part of the borough. The diverse region includes the St. George Ferry Terminal and is accessible to Brooklyn via the Verrazano Bridge.

Opioid: Class of drug that binds to specific receptors in the brain, blocking pain signals.

Opioid Dependency: The state of feeling unable to discontinue the use of opioid drugs.

Opioid Overdose: An acute condition due to excessive use of opioids that may cause death. Can be reversed by the opioid receptor antagonist naloxone; with or without reversal, death can occur.

Outpatient: A treatment facility that renders care to patients without housing them.

Overdose Response Initiative: RCDA-led program aimed toward learning as much from every overdose as possible. It allows police to investigate suspected drug overdoses similarly to homicides, providing access to information that would otherwise have been inaccessible.

Overprescription: The unjustifiably excessive provision of a prescription drug by a provider.

Recovery: A process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential. Abstinence is widely considered the safest approach for those with substance use disorders.

Reintegration: A part of the therapeutic process that begins after discharge from a long-term residential treatment facility or after a person is no longer misusing opioids.

Self-Medication: The consistent use of prescription, non-prescription or mind-altering substance by an individual to address the symptoms of what is likely an undiagnosed (or undertreated) mental illness.

Stigma: Disapproval or negative perceptions of certain behaviors or health conditions.

Suboxone (Buprenorphine + Naloxone): Branded prescription drug combination available either as a pill or a film; requires medical supervision. Used in medication-assisted treatment.

Substance Use Disorder: The overuse, or dependence on, a substance that leads to adverse physical, mental, or social consequences for the user.



Of the five boroughs that comprise New York City, Staten Island is the least populated and has the highest rate of overdose death.

Executive Summary

Introduction

The United States is experiencing an opioid epidemic. During the past two decades, the prescription of opioids skyrocketed, leading to increased opioid misuse. Since 1999, the sale of prescription opioid analgesics in the U.S. has nearly quadrupled,⁴ and so have the deaths from overdoses related to opioids.⁵ It was estimated that in 2015, 2 million Americans had a substance use disorder, more commonly known as addiction, stemming from the use of prescription opioids.⁶ During the same year, there were 20,101 recorded fatal overdoses related to prescription opioids, and 12,990 overdose deaths involving heroin in the U.S.⁷

In response to the epidemic, hundreds of interventions have been implemented by state and federal governments. By 2015, 49 states including New York introduced legislation to monitor or limit opioid prescription.⁸ The effectiveness of these programs is not yet known, as they are relatively new, but show signs of promise.

In recent years, there has also been a dramatic increase in overdose deaths involving heroin. Heroin, an illegal drug that can be snorted through the nose or injected into the veins directly, is a nonmedical opioid. According to national survey data, 914,000 people in the U.S. used heroin in 2014, a 145 percent increase from 2007.⁹ In addition, an estimated 591,000 people aged 12 or older reported a heroin addiction.¹⁰ Although the curbing of prescription practices and an increase in heroin use appear to have coincided, the presence of a causative relationship is disputed.¹¹ In recent years, heroin contaminated by the synthetic and highly potent opioid fentanyl has also exacerbated overdose statistics.¹² The rate of overdose deaths involving fentanyl is on the rise across the country.

⁴ Frenk, Steven M., et al. "Prescription opioid analgesic use among adults: United States, 1999–2012. NCHS data brief, no 189." Hyattsville, MD: National Center for Health Statistics, Feb. 2015, www.cdc.gov/nchs/products/databriefs/db189.htm.

⁵ Rudd, Rosa A., et al. "Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015." *Morb Mortal Wkly Rep*, 30 Dec. 2016.

⁶ Center for Behavioral Health Statistics and Quality. "Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health" *HHS Publication No. SMA 16-4984, NSDUH Series H-51*, 2016, www.samhsa.gov/data/.

⁷ Frenk, Steven M., et al. "Prescription opioid analgesic use among adults: United States, 1999–2012. NCHS data brief, no 189." Hyattsville, MD: National Center for Health Statistics, Feb. 2015, www.cdc.gov/nchs/products/databriefs/db189.htm.

⁸ Dart, Richard C., et al. "Trends in Opioid Analgesic Abuse and Mortality in the United States." *N Engl J Med*, vol. 372, 2015, pp. 241-48, doi:10.1056/NEJMsa1406143.

⁹ Center for Behavioral Health Statistics and Quality. "2014 National Survey on Drug Use and Health: Detailed Tables." *Substance Abuse and Mental Health Services Administration, Rockville, MD*, 2015, www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs2014/NSDUH-DetTabs2014.pdf.

¹⁰ Center for Behavioral Health Statistics and Quality. "Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health" *HHS Publication No. SMA 16-4984, NSDUH Series H-51*, 2016, www.samhsa.gov/data/.

¹¹ Compton, Wilson M., et al. "Relationship between Nonmedical Prescription-Opioid Use and Heroin Use." *N Engl J Med*, vol. 374, 2016, pp. 154-63, doi:10.1056/NEJMra1508490.

¹² Centers for Disease Control and Prevention. "CDC Health Advisory: Increases in fentanyl drug confiscations and fentanyl-related overdose fatalities." *HAN Health Advisory*, 26 Oct. 2015, emergency.cdc.gov/han/han00384.asp.

Whereas the heroin epidemic of the 1980s and 1990s was perceived as an urban minorities problem, the current crisis affects suburban middle-class families, as well.¹³ This transition has altered how the problem has been conceived and addressed. Therefore, as the number of opioid-related overdoses continues to rise,¹⁴ current interventions are primarily focused on harm reduction strategies, including medication-assisted treatments (MAT), syringe exchange and diversion programs. The goal of MAT is to relieve intense withdrawal symptoms,¹⁵ stabilize the patient with an opioid that is less likely to have negative physical, psychological, and social consequences, and enable the patient to adjust to the absence of opioids through gradual reduction of doses.¹⁶ Typically, these are administered as long-lasting oral opioids, of which there are two main options: methadone and buprenorphine.

Staten Island is in the midst of its own, unique opioid crisis that in many ways mirrors the national epidemic. Between 2015 and 2016, the number of overdose deaths rose from 69¹⁷ to 116, representing a staggering growth of 68 percent. In 2016, Staten Island had the highest overdose rate in New York City and now it surpasses even the worst affected U.S. states,¹⁸ such as West Virginia and Utah.

Today, most Staten Islanders are keenly aware of the opioid crisis in their communities. Contrary to popular belief, and as we will discuss in this research report, the opioid epidemic on Staten Island transcends location, socioeconomic status, and age. While the problem was sometimes described by interviewees as primarily impacting youth, in 2016, the median age of overdose was 37.¹⁹

Methodology

We conducted a geographically focused case study based on 29 semi-structured interviews with 61 unique individuals. We spoke with people from five key groups: political officials, law enforcement officials, people in recovery, academic researchers, and service providers (outpatient/inpatient medical and counseling services, referral services, state and local administrators). To ground this research, we also conducted a thorough literature review. Finally, we supplemented the data gathered from the interviews with an assessment of treatment capacity and distribution of services on the island. This mapping was conducted using publicly available information about treatment providers and by contacting clinics and organizations to collect data about their services. These sources gave us a broad scope of information about the nature of the crisis on Staten Island, and led us to the findings and recommendations we share in this research report.

¹³ Netherland, Julie, and Helena B. Hansen. "The War on Drugs That Wasn't: Wasted Whiteness, 'Dirty Doctors,' and Race in Media Coverage of Prescription Opioid Misuse." *Cult Med Psychiatry*, vol. 40, no. 4, 2016, pp. 664-86. doi:10.1007/s11013-016-9496-5.

¹⁴ Centers for Disease Control and Prevention. "Understanding the Epidemic: Drug overdose deaths in the United States continue to increase in 2015." 16 Dec. 2016, www.cdc.gov/drugoverdose/epidemic/.

¹⁵ MedlinePlus. "Opiate and opioid withdrawal." Update Apr. 2016, <https://medlineplus.gov/ency/article/000949.htm>.

¹⁶ Schuckit, Marc A. "Treatment of Opioid-Use Disorders." *N Engl J Med*, vol. 375, 2016, pp. 357-68, doi:10.1056/NEJMra1604339.

¹⁷ New York City Department of Health and Mental Hygiene. "Epi Data Brief: Unintentional Drug Poisoning (Overdose) Deaths in New York City, 2000 to 2016." June 2017, No. 89, www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief89.pdf.

¹⁸ Centers for Disease Control and Prevention. "Prescription Opioid Overdose Data." 16 Dec. 2016, www.cdc.gov/drugoverdose/data/overdose.html.

¹⁹ McMahon, Michael, District Attorney. "2016 Overdose Response Initiative End of Year Report: Visual Data 2016." Richmond County District Attorney's Office: Crime Strategies Unit.



Findings

Finding 1: Causes of the Opioid Crisis

When interviewed about the perceived causes of the epidemic, most interviewees cited overprescription of opioids as its origin. In addition, stigma, mental health comorbidity, boredom, and more recently, the presence of fentanyl-laced heroin, were all cited as factors that contributed to the escalation of the epidemic. Many interviewees mentioned that shame and stigma surrounding opioid use was a complicating factor in their families or communities; people fear judgment and therefore abstain from seeking help. The stigma impacted not only those addicted to opioids, but also their families and friends, who were often unwilling to admit that someone close to them was struggling with addiction.

Finding 2: Demography and Geography of the Epidemic on Staten Island

Some reports by local media portray the epidemic as one that primarily affects white youth in the more affluent neighborhoods in the South Shore.²⁰ This corresponded poorly with the experiences conveyed by our interviewees, the majority of whom underlined that those addicted to opioids on Staten Island come from all neighborhoods, races, ages, and socioeconomic backgrounds. The indiscriminate nature of the epidemic was further supported by comparing maps showing the distribution of opioid-related overdoses from 2016 to demographic and geographic factors. Moreover, the mapping identified the Mid-Island as a high-occurrence area for opioid-related overdose. It appears our report is the first to note this phenomenon.

²⁰ Dalton, Kristin F. "Health Department: Staten Island had highest drug overdose death rate in 2014." *SILive*. 8 Dec. 2015, www.silive.com/news/index.ssf/2015/12/de_blasio_announces_citywide_t.html; Frazier, Ian. "The Antidote." *The New Yorker*, 8 Sept. 2014, www.newyorker.com/magazine/2014/09/08/antidote; Goodman, David, and Michael Wilson. "Heroin's New Hometown." *The New York Times*, 4 May 2014, www.nytimes.com/2014/05/05/nyregion/heroin-s-new-hometown-in-staten-island.html; Sykes, Joe. "A Heroin Epidemic on Staten Island." *Uptown Radio*, 5 Feb. 2016, uptownradio.org/2016/02/05/a-heroin-epidemic-on-staten-island/; Wilson, Michael. "A Death on Staten Island Highlights Heroin's Place in 'Mainstream Society'." *The New York Times*, 2 Oct. 2016, www.nytimes.com/2016/10/03/nyregion/a-death-on-staten-island-highlights-heroin-s-place-in-mainstream-society.html; Wong, Marisa. "A Crisis Behind Closed Doors: Understanding Staten Island's Heroin Problem." *Metrofocus*, 23 Oct. 2014, www.thirteen.org/metrofocus/2014/10/a-crisis-behind-closed-doors-understanding-staten-islands-heroin-problem/; Wu, Annie. "Staten Island Fights A Painkiller and Heroin Epidemic." *NY City Lens*, 20 May 2014, nycitylens.com/2014/05/staten-island-fights-a-painkiller-and-heroin-epidemic/.

Finding 3: Treatment: Gaps and Opportunities

We found that some of the areas with the highest overdose counts on the island (such as Mid-Island zip codes 10314 and 10306) are also the most underserved locations in terms of opioid addiction treatment clinics. Zip code 10306, for example, has the single highest overdose rate per 100,000 people (26.8), yet it is absent of any outpatient MAT or inpatient clinics. Moreover, there are only two methadone providers on the island and three inpatient clinics (only one offering detoxification treatment). We found that both the methadone and inpatient clinics were typically at full capacity, suggesting an opportunity for expansion of these services. In general, clinics of any kind are clustered on the North Shore, posing a clear limitation on the accessibility of opioid addiction services. Buprenorphine licensed physicians are also concentrated on the North Shore, where the number of prescriptions per 100,000 is the smallest. Buprenorphine is mostly prescribed in the South Shore, where the overdose count is lowest. Halfway houses and sober-living communities are at capacity and have waitlists, suggesting that the type of behavioral treatment patients seek is more immersive and different from standard counseling.

Finding 4: Role of Law Enforcement

The role of law enforcement is unique on Staten Island, as the borough has a high concentration of municipal workers. There are already many programs for officers and justice officials, including naloxone training and usage, the District Attorney's Overdose Response Initiative, and Heroin Overdose Prevention and Education program (HOPE). Building on the work that has already been done, officers are poised to continue to take on a leadership role in taking on the opioid crisis via strategic diversion and community-based resource programs.

Finding 5: Continuum of Care

Additionally, our interviewees noted that aftercare was a vital area of improvement. Aftercare consists of activities that occur after an individual has returned home from rehabilitation services, and may consist of official counseling or more casual, social activities such as softball leagues or support groups. Providing these services will help complete the continuum of care, and ensure people with opioid addiction receive the support they need.

Finding 6: Knowledge and Education Gaps

While there are many educational programs run by law enforcement and local nonprofits, these efforts are often disjointed; a unified effort would have more impact. Our findings highlighted that the opioid crisis is compounded by a lack of adequate, coordinated public awareness programming on Staten Island. Further preventative messages must be communicated to reach larger audiences, reduce stigma, and fill in knowledge gaps around basic information such as symptoms of opioid dependency, treatment possibilities/resource accessibility, and comorbidities of opioid dependency and other mental health concerns. Additionally, our interviews revealed how little conversation there is about the symptoms associated with addiction, as well as the comorbidity of opioid misuse and other mental health problems.

RECOMMENDATIONS



Recommendations

In order to address our findings, we make the following recommendations:

Recommendation 1: Provide access to opioid addiction services where they are most needed.

The analysis of current opioid addiction treatment availability identified both geographical and capacity gaps. To close these gaps, we recommend to:

- Expand MAT options in the Mid-Island region
- Expand methadone provision
- Increase inpatient detox capacity
- Sponsor physicians to become buprenorphine certified
- Establish standards for reporting clinic performance

Recommendation 2: Create linkages in the system to ensure comprehensive, patient-centered care.

There are many services that currently exist on Staten Island aimed at aiding those suffering from opioid addiction. However, there seems to be little coordination of services and there is reason to believe not everyone gets the kind of targeted, personalized care they need to succeed in recovery, as evidenced by the ongoing nature of the crisis. We therefore recommend to:

- Individualize care through customized health plans
- Ensure persistent follow-up
- Strengthen aftercare

Recommendation 3: Develop a targeted campaign aimed at reducing stigma.

We recommend Staten Island invest in a social media campaign to educate communities about opioid addiction, dispel inaccurate conceptions, increase awareness of actions family members can take, and decrease stigma. This campaign targets two key groups on Staten Island: people who currently misuse opioids and those in positions to observe and interrupt their addictive behaviors.

Recommendation 4: Establish a searchable website with comprehensive information about available opioid addiction services.

We recommend the RCDA create and maintain an easy-to-find, easy-to-search website for both Staten Island residents and local providers that contains comprehensive information about where opioid addiction services are available within the borough and how to access them.

Recommendation 5: Draw on the unique lived experiences of people in recovery.

Often, the people closest to a problem are also closest to the solution. While there are numerous taskforces and teams working to alleviate the opioid crisis on Staten Island, people with a history of addiction are often not present during these meaningful policy discussions. Due to their unique, lived experiences within the opioid crisis, their voices are invaluable.

Throughout our research, our team encountered people from various fields across Staten Island who were energized and eager to take on the opioid addiction crisis within their communities. While many challenges remain, the fervent commitment to embrace creative solutions presents immense opportunity. By implementing our recommendations, Staten Island will take major steps toward stemming this devastating epidemic and build a healthier, more robust borough. Together, we can end the opioid crisis on Staten Island.

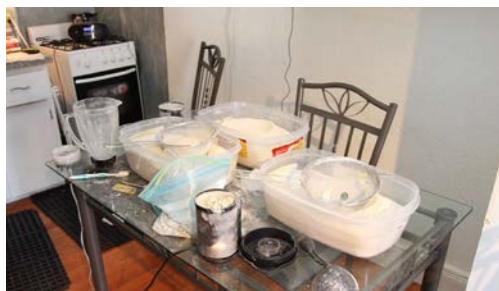
Introduction: The Crisis in the U.S. and Staten Island

United States

The United States is experiencing an opioid epidemic. During the past two decades, the prescription of opioids skyrocketed, leading to increased opioid misuse. Since 1999, the sale of prescription opioid analgesics in the U.S. has nearly quadrupled,²¹ and so have the deaths from overdose related to opioids.²² Drug overdose is currently the number one cause of accidental death in the U.S., with opioid addiction driving this epidemic. It was estimated that in 2015, 2 million Americans had a substance addiction stemming from the use of prescription opioids.²³ During the same year, there were 20,101 recorded fatal overdoses related to prescription opioids and 12,990 overdose deaths involving heroin in the U.S.²⁴

In 2014, 10.3 million Americans aged 12 or older said they misused prescription opioids during the previous year, and 4.3 million said they misused during the past month.²⁵ The pattern of opioid misuse, defined as the use of prescription opioids by someone other than the patient or used by the patient in an unintended manner, varies from infrequent consumption to daily use of high doses.²⁶ Many individuals who are prescribed opioids for chronic pain relief also develop opioid use disorder (opioid addiction), but have not yet sought help. Although opioid or substance use disorder is the accurate diagnosis,²⁷ we will from here on refer to the condition using the more colloquial term opioid addiction.

The increase in opioid prescriptions during the past few decades has its origin in low-quality evidence indicating that long-term treatment of chronic pain with opioids is safe, as well as a strong campaign from the pharmaceutical industry to promote long-term usage of opioid pain relievers for chronic non-cancer pain.²⁸ Once officials realized over-prescription was a causal factor in opioid addiction, hundreds of interventions were implemented at the state and federal levels. By 2015, 49 states including New York introduced legislation to monitor or



Heroin, prepared in packaging mills like the one depicted here, is responsible for tens of thousands of overdose deaths in the U.S.

Photo Credit: NYC's Special Narcotics Prosecutor



2015

2 MIL
ADDICTED
TO OPIOIDS

20,101
FATAL OPIOID
OVERDOES

12,990
FATAL HEROIN
OVERDOES

²¹ Frenk, Steven M., et al. "Prescription opioid analgesic use among adults: United States, 1999–2012. NCHS data brief, no 189." Hyattsville, MD: National Center for Health Statistics, Feb. 2015, www.cdc.gov/nchs/products/databriefs/db189.htm.

²² Rudd, Rose A., et al. "Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015." *Morbidity and Mortality Weekly Report*, 30 Dec. 2016.

²³ Center for Behavioral Health Statistics and Quality. "Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health" *HHS Publication No. SMA 16-4984, NSDUH Series H-51*, 2016, www.samhsa.gov/data/.

²⁴ Frenk, Steven M., et al. "Prescription opioid analgesic use among adults: United States, 1999–2012. NCHS data brief, no 189." Hyattsville, MD: National Center for Health Statistics, Feb. 2015, www.cdc.gov/nchs/products/databriefs/db189.htm.

²⁵ Center for Behavioral Health Statistics and Quality. "2014 National Survey on Drug Use and Health: Detailed Tables." *Substance Abuse and Mental Health Services Administration*, Rockville, MD, 2015, www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs2014/NSDUH-DetTabs2014.pdf.

²⁶ Compton, Wilson M., et al. "Relationship between Nonmedical Prescription-Opioid Use and Heroin Use." *N Engl J Med*, vol. 374, 2016, pp. 154–63, doi:10.1056/NEJMr1508490.

²⁷ American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (5th ed.)*. Washington, DC: Author, 2013.

²⁸ Kolodny, Andrew, et al. "The Prescription Opioid and Heroin Crisis: A Public Health Approach to an Epidemic of Addiction." *Annu Rev Public Health*, vol. 36, 2015, pp. 559–74, doi:10.1146/annurev-publhealth-031914-122957.

limit opioid prescription.²⁹ The effectiveness of these programs is not yet known on a country-wide level, as they are relatively new. However a comprehensive public health strategy to curb prescriptions led to a 29 percent decline in the prescription opioid-related overdose rate from 2011 to 2013 on Staten Island, but not in New York's other four boroughs.³⁰



In the largest heroin seizure in the history of SNP and U.S. Drug Enforcement Administration (DEA) New York Division, agents recovered 70 kilograms worth up to \$50 million. Shipments came from the Sinaloa Cartel in Mexico, which serves as a main heroin provider for NYC and the entire Northeast.

Photo Credit: DEA New York Division - 5/20/2015

While there are efforts to reduce prescription of opioids, there has been an increase in both heroin use and overdose deaths involving heroin. Heroin, an illegal drug that can be snorted through the nose or injected into the veins directly, is itself a nonmedical opioid. According to national survey data, 914,000 people in the U.S. used heroin in 2014, a 145 percent increase from 2007.³¹ In addition, in 2014, an estimated 591,000 people aged 12 or older reported a heroin addiction.³² Although the curbing of prescription practices and an increase in heroin use appear to have coincided, a recent literature review concludes that a causal link is unlikely, as data shows the

upsurge in heroin started before curbing policies were fully implemented. One study, headed by a researcher at the National Institute on Drug Abuse, confirms that misuse of prescription opioids serves as a strong risk factor for heroin use, but that transition to heroin is rare, and primarily concerns a subgroup with frequent misuse.³³

In recent years, heroin contaminated by the synthetic and highly potent opioid fentanyl has exacerbated overdose statistics.³⁴ Fentanyl is a powerful synthetic opioid analgesic that can be 50 to 100 times more potent than morphine.³⁵ For example, from 2013 to 2014, the rate of overdose deaths involving synthetic opioids, including fentanyl, increased 80 percent in the New England region of the U.S.³⁶ In Rhode Island, half of all overdose deaths in 2015 involved fentanyl or fentanyl analogues. This was an increase from 37 percent in 2014, and from less

²⁹ Dart, Richard C., et al. "Trends in Opioid Analgesic Abuse and Mortality in the United States." *N Engl J Med*, vol. 372, 2015, pp. 241-48, doi:10.1056/NEJMsa1406143.

³⁰ Paone, Denise, et al. "Decrease in Rate of Opioid Analgesic Overdose Deaths — Staten Island, New York City, 2011–2013." *Morb Mortal Wkly Rep*, vol. 64, no. 18, 15 May 2015, pp. 491-94.

³¹ Center for Behavioral Health Statistics and Quality. "2014 National Survey on Drug Use and Health: Detailed Tables." *Substance Abuse and Mental Health Services Administration, Rockville, MD*, 2015, www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs2014/NSDUH-DetTabs2014.pdf.

³² Center for Behavioral Health Statistics and Quality. "Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health" *HHS Publication No. SMA 16-4984, NSDUH Series H-51*, 2016, www.samhsa.gov/data/.

³³ Compton, Wilson M., et al. "Relationship between Nonmedical Prescription-Opioid Use and Heroin Use." *N Engl J Med*, vol. 374, 2016, pp. 154-63, doi:10.1056/NEJMra1508490.

³⁴ Centers for Disease Control and Prevention. "CDC Health Advisory: Increases in fentanyl drug confiscations and fentanyl-related overdose fatalities." *HAN Health Advisory*, 26 Oct. 2015, emergency.cdc.gov/han/han00384.asp.

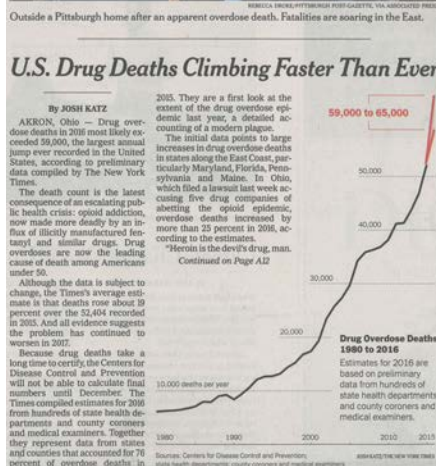
³⁵ National Institute on Drug Abuse. "Fentanyl: Brief Description." Updated June 2016, www.drugabuse.gov/drugs-abuse/fentanyl.

³⁶ Rudd, Rose A., et al. "Increases in drug and opioid overdose deaths—United States, 2000–2014." *Morb Mortal Wkly Rep*, vol. 64, no. 50, 1 Jan. 2016, pp. 1378–82.

than 5 percent in years prior.³⁷ The rate of overdose deaths involving fentanyl is now on the rise across the country.

The ongoing opioid epidemic has a different profile than the corresponding heroin epidemic of the 1980s and 1990s. Opioid use in the 1980s and 1990s was characterized by heroin used by urban racial minorities. Today the epidemic also stems from prescription drugs, and plays out in suburban America within the protective sphere of the home.³⁸ This newly involved population has altered how the problem is conceived and addressed, including a new focus on non-judicial interventions. Moreover, despite aggressive efforts to address the underlying problem of high opioid prescription rates, data show that opioid overdoses continue to rise.³⁹ Current interventions are therefore largely focused on harm reduction, and include medication-assisted treatments (MAT), syringe exchange, and diversion programs.

Although withdrawal from opioids alone is rarely fatal, the symptoms are extremely uncomfortable. The goal of MAT is to relieve intense withdrawal symptoms (which may include insomnia, muscle aches, and agitation),⁴⁰ stabilize the patient with an opioid that is less likely to have negative physical, psychological, and social consequences, and enable the patient to adjust to the absence of opioids through gradual reduction of doses.⁴¹ Typically, patients are administered long-lasting oral opioids. There are two main options: methadone and buprenorphine, both of which are effective in treating opioid addiction. In the event of an opioid overdose, first responders can reverse the condition by administering naloxone (trade name: Narcan), an opioid antidote. Naloxone combined with buprenorphine is marketed as Suboxone, a drug that is intended to pose a lower risk of misuse. For any MAT strategy to be successful, it must also include psychosocial support services.⁴²



New York Times – 6/6/2017

³⁷ Rhode Island Governor's Overdose Prevention and Intervention Task Force. "Rhode Island's strategic plan on addiction and overdose: Four strategies to Alter the course of an epidemic." 10 Nov. 2015, static1.squarespace.com/static/55d208f6e4b04baeaff02618/t/5644d6f6e4b07080d3aba45f/1447352054184/Task+Force+Strategic+Plan.pdf.

³⁸ Keyes, Katherine M., et al. "Understanding the Rural-Urban Differences in Nonmedical Prescription Opioid Use and Abuse in the United States." *Am J Public Health*, vol. 104, no. 2, 2014, pp. 52-59, doi:10.2105/AJPH.2013.301709; Netherland, Julie, and Helena B. Hansen. "The War on Drugs That Wasn't: Wasted Whiteness, 'Dirty Doctors,' and Race in Media Coverage of Prescription Opioid Misuse." *Cult Med Psychiatry*, vol. 40, no. 4, 2016, pp. 664-86. doi:10.1007/s11013-016-9496-5; Wilkerson, Richard G., et al. "The Opioid Epidemic in the United States." *Emerg Med Clin North Am*, vol. 34, no. 2, 2016, pp. e1-e23, doi:10.1016/j.emc.2015.11.002.

³⁹ Centers for Disease Control and Prevention. "Understanding the Epidemic: Drug overdose deaths in the United States continue to increase in 2015." 16 Dec. 2016, www.cdc.gov/drugoverdose/epidemic/.

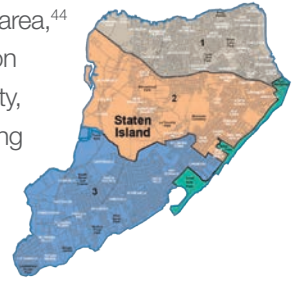
⁴⁰ MedlinePlus. "Opiate and opioid withdrawal." Update Apr. 2016, <https://medlineplus.gov/ency/article/000949.htm>.

⁴¹ Schuckit, Marc A. "Treatment of Opioid-Use Disorders." *N Engl J Med*, vol. 375, 2016, pp. 357-68, doi:10.1056/NEJMra1604339.

⁴² Schuckit, Marc A. "Treatment of Opioid-Use Disorders." *N Engl J Med*, vol. 375, 2016, pp. 357-68, doi:10.1056/NEJMra1604339.

Staten Island

Staten Island is home to more than 473,000 residents⁴³ and is 59 square miles in area,⁴⁴ making it the least-populous and third-largest borough. It has the lowest population density of any borough, and although it falls within the municipality of New York City, has a distinctly suburban culture. This culture is marked by driving rather than taking public transportation, a deep sense of autonomy from nearby Manhattan, and a limited offering of recreational or cultural activities compared with other New York City boroughs.



The island is roughly divided into two regions: the North Shore and the South Shore. The North Shore is more ethnically diverse and geographically closer to the rest of New York City via the Staten Island Ferry (St. George Ferry Terminal, connects to Manhattan) and the Verrazano Bridge (which connects to Brooklyn). The South Shore is mostly white and geographically closer to New Jersey via the Outerbridge Crossing. Colloquially, residents use these terms these terms to describe the island, with “Mid-Island” occasionally used to describe the area between them.

Staten Island has a high level of employment and a high median income of about \$72,000, significantly more than New York City’s overall median (about \$55,000).⁴⁵ Many residents work for municipal government as firefighters, police officers, teachers, etc. As a result, it also has a high penetration of health insurance, a key factor in rooting the opioid crisis.



\$72,000
MEDIAN
INCOME



Announcement of i-Stop legislation with New York State Assembly Member Michael Cusick and Attorney General Eric Schneiderman.

Photo Credit: New York State Assembly

The origins of the opioid crisis on Staten Island are not dissimilar to those throughout the U.S. One standing hypothesis for the growth in heroin use is that as opioid pills became more expensive, many people addicted to opioids shifted toward heroin, a chemically similar but generally cheaper drug. This is disputed in some literature; as a causal relationship is difficult to draw.⁴⁶ In 2013, New York

State began the Internet System for Tracking Over-Prescribing program (I-STOP), a monitoring program aimed at stemming the flow of prescription opioids from doctors to patients.⁴⁷ While there are many state- and city-wide initiatives to stem the flow of prescription pills, it is unclear whether this program has an impact on the current crisis on the island.

⁴³ Staten Island Advance. “Staten Island’s population: Eleven facts about the borough’s demographics, ethnic diversity.” SILive, 2 Mar. 2015, www.silive.com/guide/index.ssf/2015/03/population.html.

⁴⁴ Encyclopedia Britannica. “Staten Island.” Updated Apr. 2010, www.britannica.com/place/Staten-Island.

⁴⁵ Crain’s. “Staten Island 2013.” mycrains.craigslist.com/stats-and-the-city/2013/boroughs/staten-island.

⁴⁶ Compton, Wilson M., et al. “Relationship between Nonmedical Prescription-Opioid Use and Heroin Use.” *N Engl J Med*, vol. 374, 2016, pp. 154-63, doi:10.1056/NEJMra1508490.

⁴⁷ New York State Department of Health. “I-STOP/PMP - Internet System for Tracking Over-Prescribing - Prescription Monitoring Program.” Updated Mar. 2017, www.health.ny.gov/professionals/narcotic/prescription_monitoring/.

Scope of the Problem on Staten Island

In 2016, shortly after taking office, Staten Island District Attorney Michael McMahon started the Overdose Response Initiative, which seeks to curb deaths from opioid use and curb supply.⁴⁸ The initiative trains police officers to respond to opioid overdose cases as though they are homicides, which gives them the mandate to collect personal information from cellphones, belongings, and relatives to find sources of the fatal drugs.

Today, most Staten Islanders are keenly aware of the opioid crisis in their communities.



Staten Island DA Michael McMahon, with Borough President James Oddo and Special Narcotics Prosecutor Bridget Brennan, announces the Overdose Response Initiative.

Photo Credit: SILive/SI Advance/Anthony DePrimo

More and more people in the borough now attend publically available counseling groups and even naloxone trainings to learn how to effectively administer the overdose antidote. Of the 31 naloxone saves performed this year as of March 23, 2017, 20 were administered by emergency medical service personnel, five were administered by family, one was administered by a friend, four by police officers, and one by a hospital

employee, according to a report by the RCDA's Overdose Response Initiative.⁴⁹ Ten of the 31 naloxone saves occurred on a Friday. In 2016, there were a total of 116 overdoses that occurred among people between 18 and 64 years of age, across all four Staten Island police precincts, and in most of Staten Island's zip codes.⁵⁰ Contrary to popular belief (and as we will discuss later in this report), the opioid epidemic on Staten Island transcends location, socioeconomic status, and age. While the problem was sometimes described by interviewees as primarily impacting youth, in 2016, the median age of overdose was 37.⁵¹

Through our research, we found tremendous opportunities to combat the opioid crisis on Staten Island. Residents, officials, and medical professionals are engaged and excited to find new ways to help people with opioid addiction. In this report, we will outline our findings in knowledge and treatment gaps, the role of law enforcement, and more. Staten Island is ripe for change. The time is now to continue and double down on opioid reduction efforts.

⁴⁸ Wilson, Michael. "A Death on Staten Island Highlights Heroin's Place in 'Mainstream Society'." *The New York Times*. 2 Oct 2016, www.nytimes.com/2016/10/03/nyregion/a-death-on-staten-island-highlights-heroin-place-in-mainstream-society.html.

⁴⁹ McMahon, Michael, District Attorney. "2017 Overdose Response Initiative." *Richmond County District Attorney's Office: Crime Strategies Unit*. 23 Mar. 2017.

⁵⁰ According to the RCDA, which was contacted per telephone 1 May 2017. New York City Department of Health and Mental Hygiene. "Epi Data Brief: Unintentional Drug Poisoning (Overdose) Deaths in New York City, 2000 to 2016." June 2017, No. 89, www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief89.pdf.

⁵¹ McMahon, Michael, District Attorney. "2016 Overdose Response Initiative End of Year Report: Visual Data 2016." *Richmond County District Attorney's Office: Crime Strategies Unit*.

Methodology

The methodology employed for this research project was a geographic-focused case study. Our case study relied on data from semi-structured interviews with stakeholders on Staten Island and in the drug treatment field outside the borough. These qualitative interviews were the basis for our findings and recommendations.

To ground our research project, we conducted a literature review. We searched Pubmed, Columbia Libraries Catalog (CLIO), and Google Scholar for peer-reviewed articles published between 2010 and 2017. Where relevant, we also supplemented the review with data reports on opioid addiction and overdoses published by state, city, and borough offices, and print and online media reports. Using information from our initial research, we created five categories of interviewees: political officials, law enforcement officials, people in recovery, academic researchers, and service providers (outpatient/inpatient medical and counseling services, referral services, state and local administrators). (See **Appendix D** for a detailed breakdown of interviewees.) We created interview templates for each interviewee category, and conducted semi-structured interviews with each interviewee, allowing time for flexibility to listen to any comments or ideas outside of our formatted questions. Ultimately, we spoke with 61 individuals representing 26 organizations. Of the interviews we conducted, 52 percent were with groups and 48 percent were with individuals. We told each interviewee he or she would remain anonymous, identified only by their category or organization. This is consistent with how interviewees are notated throughout this report.

Twenty-one interviews were conducted in-person and eight were completed via Skype or phone. A minimum of two team members conducted these interviews whenever possible to ensure a consistent understanding of information. The semi-structured format allowed us to be flexible with our interviewees while maintaining direction. Interviewees often opened up new lines of reasoning, and we adjusted our future questions and restructured our interview templates (without compromising the research project goals) to accommodate new findings. Interviewees signed a written consent form; results were grouped by interviewee title or function. These practices were consistent with existing Columbia University Institutional Review Board (IRB) guidance and we obtained IRB approval for the project.

After completion, we reviewed our initial findings as a team to glean patterns that would ultimately allow us to create a coding system. This process identified six themes into which we coded our interview content: existing knowledge/education, potential causative/aggravating factors, treatment variables, the role of law enforcement, suggested solutions to the epidemic, and demographic distinctions.

Next, we used a three-step coding process to maximize our coding integrity. First, two team members not involved in conducting the interview collaborated to perform an initial coding of each interview, and second, a separate team of two reviewed these codes. Finally, the entire team met to discuss these results with our supervising faculty, who provided summative guidance. Pertinent findings from this original research were reviewed against the context of our background research to generate and inform policy recommendations.

Findings

Throughout interviews with stakeholders, we found it was difficult to find anyone on Staten Island who had not been impacted by the opioid epidemic. Everyone knows someone—be they a family member, a friend, or themselves—who experimented with or died from opioid misuse. However, not everyone willfully raises their hands to admit they, or someone they know, have a problem. For a multitude of reasons, this is a crisis, and one that requires multi-stakeholder engagement across the law enforcement, treatment, aftercare, education, and political communities on Staten Island.

Our research seeks to provide our clients with recommendations for feasible, evidence-driven goals that take into account the human toll of the opioid epidemic and improve the lives of all Staten Islanders.

Finding 1: Causes of the Opioid Crisis

Although opioid addiction and overdose from opioids are not new to New York City, many interviewees noted that the causes of the current epidemic are different from those preceding it. In particular, overprescription of opioids was put forth as the origin of the present crisis. In addition, stigma surrounding addiction, mental health comorbidity, boredom, and more recently, the presence of fentanyl-laced heroin, were all cited by interviewees as factors that contributed to the escalation of this crisis.

The increase in opioid prescription rates during the past few decades has been thoroughly documented in literature.⁵⁶ In our interviews, overprescription of opioid pills was consistently cited as the leading cause of the epidemic by politicians, treatment providers, researchers, community organizations, and individuals in recovery. The easy access to pills, either through direct prescription or through unused prescriptions remaining in medical cabinets, was perceived to spur drug misuse. According to an individual in recovery, “there [was] no stigma for taking pills,” thus making it relatively easy to go doctor shopping for new prescriptions. Moreover, the use of prescription pills was perceived to pose few legal consequences. This was echoed by one government official we interviewed, who asserted that “if you get it from your medicine cabinet, it also bears little risk of arrest.” It was widely acknowledged that programs aimed to curb prescriptions successfully reduced prescription rates, but one outpatient addiction treatment provider expressed a desire to make the guidelines more strict. Two interviewees, one law enforcement and one government official, also suggested that heroin came in and filled the gap as opioid pills became harder to get and became more expensive due to high demand and reduced supply. However, so far, such a causal relationship has not been supported by the literature.⁵⁷

Many interviewees mentioned that shame and stigma surrounding opioid use was a complicating factor in their families or communities; people may fear judgment and therefore abstain from seeking help. The stigma impacted not only those addicted to opioids, but also

“If you get it from your medicine cabinet, it also bears little risk of arrest.”

⁵⁶ Frenk, Steven M., et al. “Prescription opioid analgesic use among adults: United States, 1999–2012. NCHS data brief, no 189.” *Hyattsville, MD: National Center for Health Statistics*, Feb. 2015, www.cdc.gov/nchs/products/databriefs/db189.htm.; Kolodny, Andrew, et al. “The Prescription Opioid and Heroin Crisis: A Public Health Approach to an Epidemic of Addiction.” *Annu Rev Public Health*, vol. 36, 2015, pp. 559–74, doi:10.1146/annurev-publhealth-031914-122957.

⁵⁷ Compton, Wilson M., et al. “Relationship between Nonmedical Prescription-Opioid Use and Heroin Use.” *N Engl J Med*, vol. 374, 2016, pp. 154–63, doi:10.1056/NEJMra1508490.

their families and friends, who were often unwilling to admit that someone close to them was struggling with addiction. This was the case for Jonathan, a church-going Staten Island resident and basketball player with no known history of drug misuse. At 27, he died unexpectedly of a fatal overdose in a shopping mall while his mother was waiting in the car outside.⁵⁸ According to law enforcement officials, parents often remained in denial about their children's drug use or did not have the essential skills to communicate their concerns.



A 27-year-old Staten Island man, depicted here in a Facebook photo, fatally overdosed on heroin at the Staten Island Mall. He had hidden his addiction.

Photo Credit: SILive/SI Advance - 05/29/2016

Staten Island was uniformly described by interviewees as being composed of close-knit communities. However, this closeness may prevent some individuals from seeking treatment. In a community where everyone knows everyone, people with opioid addiction may fear being exposed and stigmatized when reaching out for help. According to one interviewee in recovery, “[people addicted to opioids] have a huge ego, and low self-esteem,” and therefore may prefer to keep using drugs rather than seeking help. This shame was further exacerbated by a claim that doctors did not want to treat those suffering from addiction to opioids. As formulated by another individual in recovery, “everyone knows it’s there...it’s acceptable [to not like drug users].” This also affected treatment providers. One clinic reported resistance of certain neighborhoods to opening treatment centers, fearing that people with substance addiction would negatively affect the community. To avoid the stigma and to get a larger choice in treatment providers, some individuals therefore decided to seek help outside the island.

“For years, this issue has been under the table, but now it’s visible, it’s undeniable,” said an interviewee in recovery. Diverse stakeholders shared this claim on many levels. A cautiously optimistic hospital administrator observed, “stigma has started to disintegrate,” but added that it would take more time to see the results. This notion of increased awareness and decreasing stigma was equally supported by police accounts that more people have begun to cite overdose as cause of distress when they call 911.

Addiction is prevalent in individuals who also suffer from other mental health disorders also known as comorbidity. Several interviewees discussed the role of 9/11 and Hurricane Sandy that hit the community of Staten Island particularly hard because of its high density of police and firefighters. According to these individuals, including a political representative and a hospital manager, these incidents had left many people coping with trauma, which may have predisposed them to self-medicate with opioids and ultimately to addiction. Still, others on Staten Island who were interviewed dismissed this connection.

Researchers, hospital managers, and law enforcement officials mentioned the rapid influx of heroin laced with synthetic opioids, such as fentanyl, as an important driver of overdose

“People often don’t seek recovery because they’re embarrassed - They have a huge ego, and low self esteem.”

“For years, this issue has been under the table, but now it’s visible, it’s undeniable.”

⁵⁸ Wassef, Mira. “‘God, PLEASE HELP ME,’ Great Kills man wrote in journal before suspected Red Robin OD.” *SILive*. 29 Sept. 2016, www.silive.com/news/index.ssf/2016/09/god_please_help_me_great_kills.html.



Seven kilograms of fentanyl seized from a Toyota Sequoia with Maryland license plates at 76th Street and Broadway in Manhattan.

Photo Credit: NYC's Special Narcotics Prosecutor - 10/17/2016



Oftentimes, drug traffickers go to great lengths to conceal narcotics from law enforcement. In this case, fentanyl was hidden inside an air compressor.

Photo Credit: NYC's Special Narcotics Prosecutor - 7/2015

“Time is the devil’s playground.”

deaths. This is supported by preliminary results showing that 56 percent of confirmed overdoses on Staten Island in 2016 and early 2017 involved fentanyl.⁵⁹ According to law enforcement officials, the fentanyl components are made in China and shipped to Mexico, where they are assembled and sent to the U.S.

Finally, four political officials and two caregivers cited a lack of pastime activities as a possible reason why teenagers experiment with drugs. In other words, they’re bored, and experimentation with drugs is a way to fill the void. From our interviews, it appears that many youth engage in activities with local nonprofits until they reach their mid-teens. However, according to one law enforcement official, at that point, “students either go into varsity sports or do nothing.” Moreover, as parents often commute to other boroughs for work, young people often have a lot of unsupervised time, according to one drug counselor interviewed. This notion was supported by the personal experiences of individuals in recovery. One person, who now works as a peer counselor, said of his upbringing, “my parents both worked and

were never home. They would come home late and I would stay out late from a young age. We did whatever we wanted.” This was echoed by another peer, who said “time is the devil’s playground.”

However, not everyone agreed with this account. One political official said that mandated programming such as baseball leagues or other organized activities wouldn’t make a dent, because they wouldn’t be considered “cool” by teenagers who are already lackadaisical. Both an outpatient clinic administrator and representatives of a community organization utterly dismissed the idea and claimed that boredom was used as an excuse for engaging in illegal activities.

Finding 2: Demography and Geography of the Epidemic on Staten Island

Staten Island recorded 116 opioid-related deaths in 2016.⁶⁰ This number presents a rate of 30.3 overdose deaths per 100,000 people, a higher rate than those of the worst affected U.S. states for prescription opioid overdoses,⁶¹ such as West Virginia or Utah. Between 2015 and 2016,

⁵⁹ Unpublished report by the Patrol Borough Staten Island from 28 Feb. 2017.

⁶⁰ New York City Department of Health and Mental Hygiene. “Epi Data Brief: Unintentional Drug Poisoning (Overdose) Deaths in New York City, 2000 to 2016.” June 2017, No. 89, www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief89.pdf.

2016
116
OPIOID RELATED DEATHS

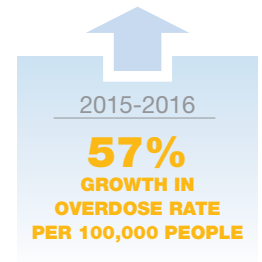
the number of overdose deaths on Staten Island increased from 69⁶² to 116, representing a staggering growth of 57 percent in the overdose rate per 100,000 people. In 2016, despite having the lowest population density of any borough, Staten Island ranked as the worst affected borough in New York City, followed by the Bronx.⁶³

Some reports by local media portray the epidemic as one that primarily affects white youth in the more affluent neighborhoods on the South Shore of the island.⁶⁴ In general, this corresponded poorly with the experiences of our interviewees. Our mapping of overdoses and demographic characteristics painted the image of a borough-wide epidemic that affects people from all races, ages, and backgrounds.

“It’s a Borough-Wide Problem”

Interviewees had disparate views regarding the geographic focus of the epidemic. Whereas two interviewees, one political official and one treatment administrator, claimed the opioid epidemic was concentrated on the island’s more affluent South Shore, others denied this notion. A interviewee in recovery explained that according to his experience “it’s not just a zip code problem – it is a borough-wide problem.” This view was supported by both a political official and law enforcement official, who said the “overdoses match the demographics of the island.”

With information provided by the Richmond County District Attorney’s Office and the New York City Police Department (NYPD) as of May 1, 2017, we were able to map the locations of 89 out of the 116 overdoses on Staten Island in 2016. **Figure 1** shows the absolute number of overdoses by zip code based on provisional data.⁶⁵ The North Shore had the highest combined number of overdoses: 36. The Mid-Island region, however, is not far off: the zip codes 10314 and 10306 alone account for 30 overdoses combined. These are the two zip codes with the highest number of overdoses on the island at 15 each. **Figure 2** shows the corresponding figures per 100,000 population. This demonstrates even more clearly the disproportionate number of overdoses in the Mid-Island zip code 10306. These findings confirm that overdoses are taking place everywhere on the island, and are in fact not concentrated most heavily on the South Shore. Moreover, they identify the Mid-Island as a high-occurrence area for opioid-related overdose that appears to have been overlooked by the stakeholders we interviewed.



⁶¹ Centers for Disease Control and Prevention. “Prescription Opioid Overdose Data.” 16 Dec. 2016, www.cdc.gov/drugoverdose/data/overdose.html.

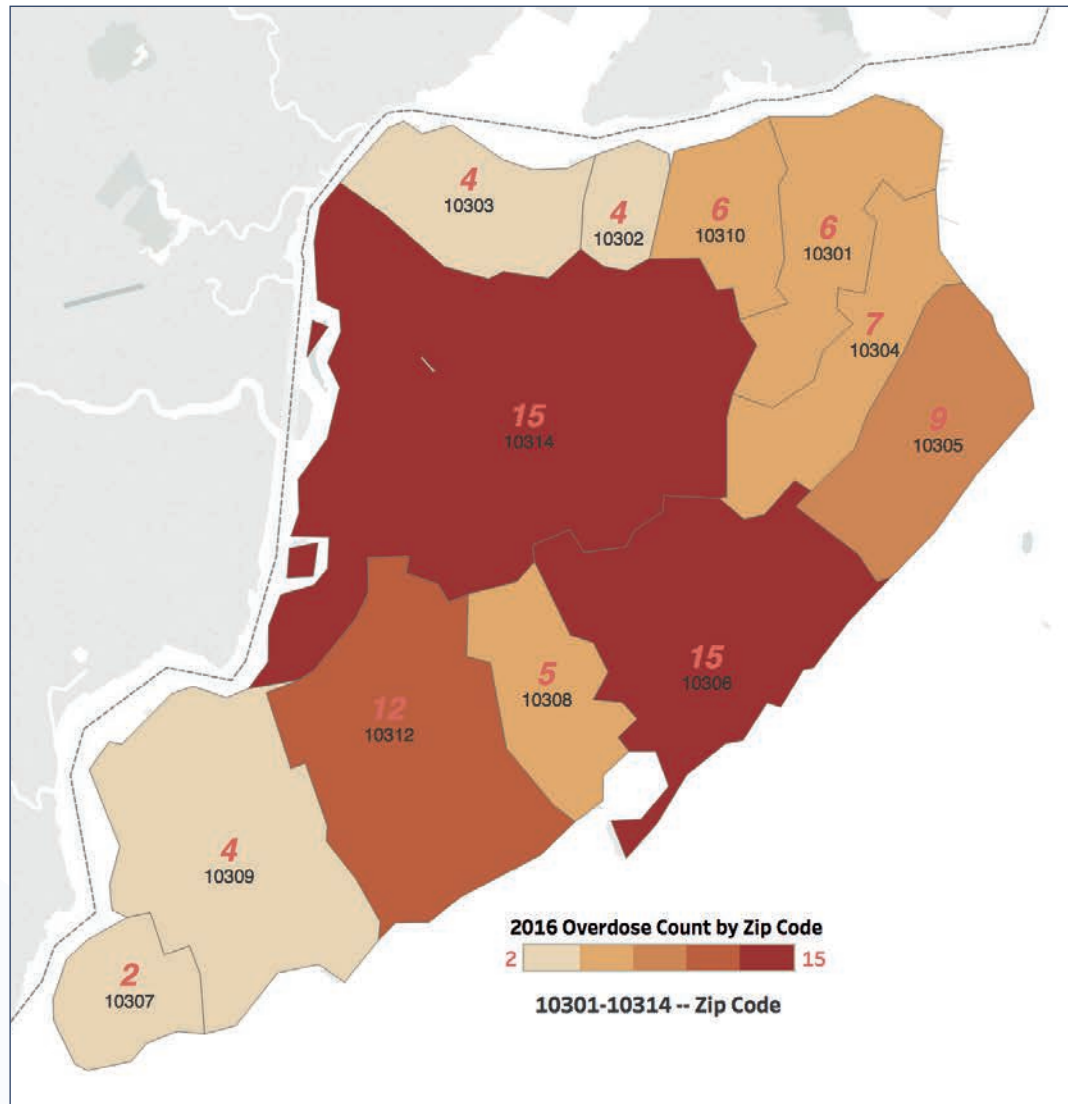
⁶² New York City Department of Health and Mental Hygiene. “Epi Data Brief: Unintentional Drug Poisoning (Overdose) Deaths in New York City, 2000 to 2016.” June 2017, No. 89, www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief89.pdf.

⁶³ Office of the Special Narcotics Prosecutor for the City of New York. “New York City Overdose Briefing.” Feb. 2017.

⁶⁴ Dalton, Kristin F. “Health Department: Staten Island had highest drug overdose death rate in 2014.” *SILive*. 8 Dec. 2015, www.silive.com/news/index.ssf/2015/12/de_blasio_announces_citywide_t.html; Frazier, Ian. “The Antidote.” *The New Yorker*, 8 Sept. 2014, www.newyorker.com/magazine/2014/09/08/antidote; Goodman, David, and Michael Wilson. “Heroin’s New Hometown.” *The New York Times*, 4 May 2014, www.nytimes.com/2014/05/05/nyregion/heroins-new-hometown-in-staten-island.html; Sykes, Joe. “A Heroin Epidemic on Staten Island.” *Uptown Radio*, 5 Feb. 2016, uptownradio.org/2016/02/05/a-heroin-epidemic-on-staten-island/; Wilson, Michael. “A Death on Staten Island Highlights Heroin’s Place in ‘Mainstream Society’.” *The New York Times*, 2 Oct. 2016, www.nytimes.com/2016/10/03/nyregion/a-death-on-staten-island-highlights-heroins-place-in-mainstream-society.html; Wong, Marisa. “A Crisis Behind Closed Doors: Understanding Staten Island’s Heroin Problem.” *Metrofocus*, 23 Oct. 2014, www.thirteen.org/metrofocus/2014/10/a-crisis-behind-closed-doors-understanding-staten-islands-heroin-problem/; Wu, Annie. “Staten Island Fights A Painkiller and Heroin Epidemic.” *NY City Lens*, 20 May 2014, nycitylens.com/2014/05/staten-island-fights-a-painkiller-and-heroin-epidemic/.

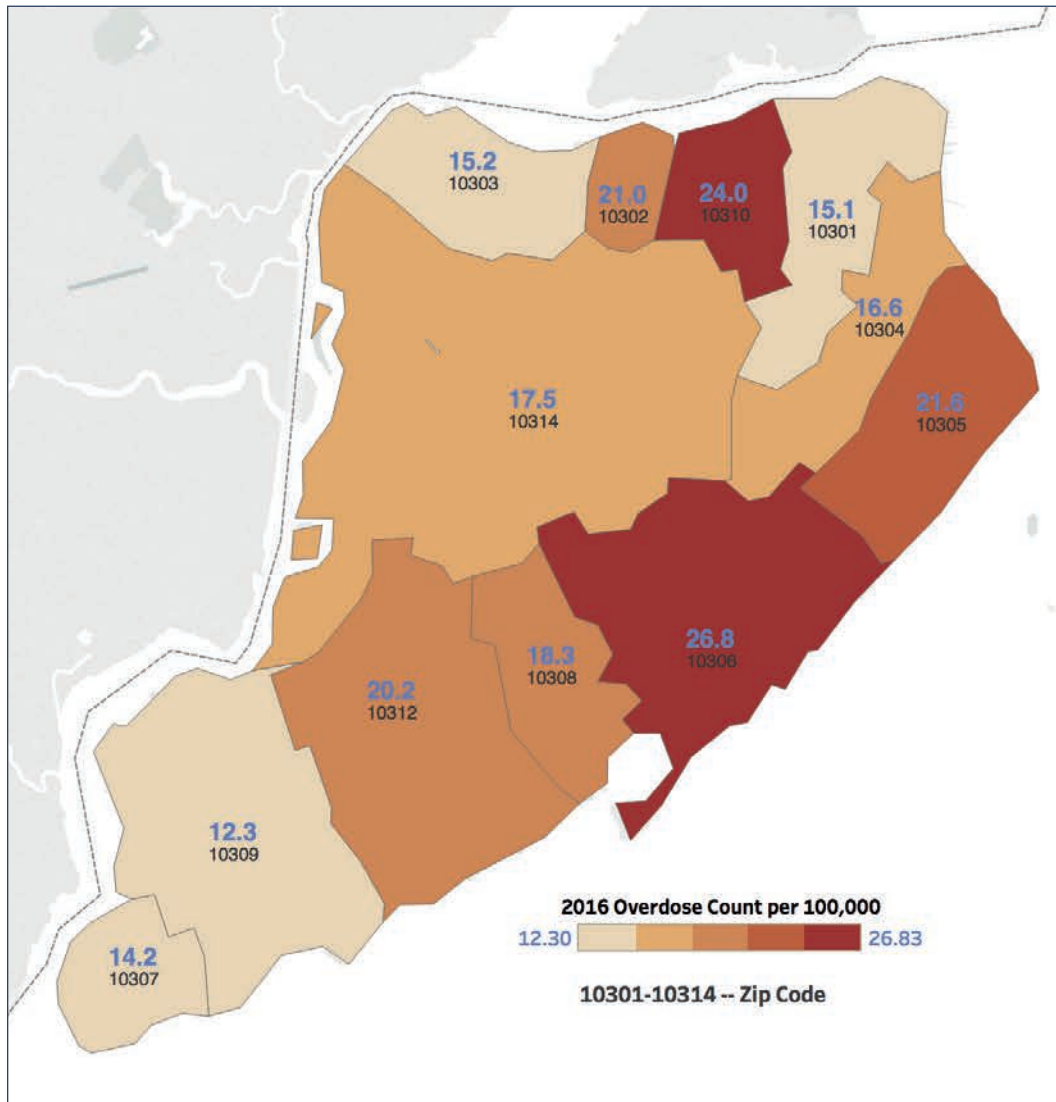
⁶⁵ New York City Department of Health and Mental Hygiene. “Epi Data Brief: Unintentional Drug Poisoning (Overdose) Deaths Involving Heroin and/or Fentanyl in New York City, 2000–2015.” Aug. 2016, No. 74, www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief74.pdf.

FIGURE 1: ABSOLUTE NUMBER OF OVERDOSES BY ZIP CODE – STATEN ISLAND, 2016



Source: 2016 Overdose Response Initiative, Richmond County DA's Office as of 1 May 2017

FIGURE 2: NUMBER OF OVERDOSES PER 100,000 PEOPLE, BY ZIP CODE – STATEN ISLAND, 2016

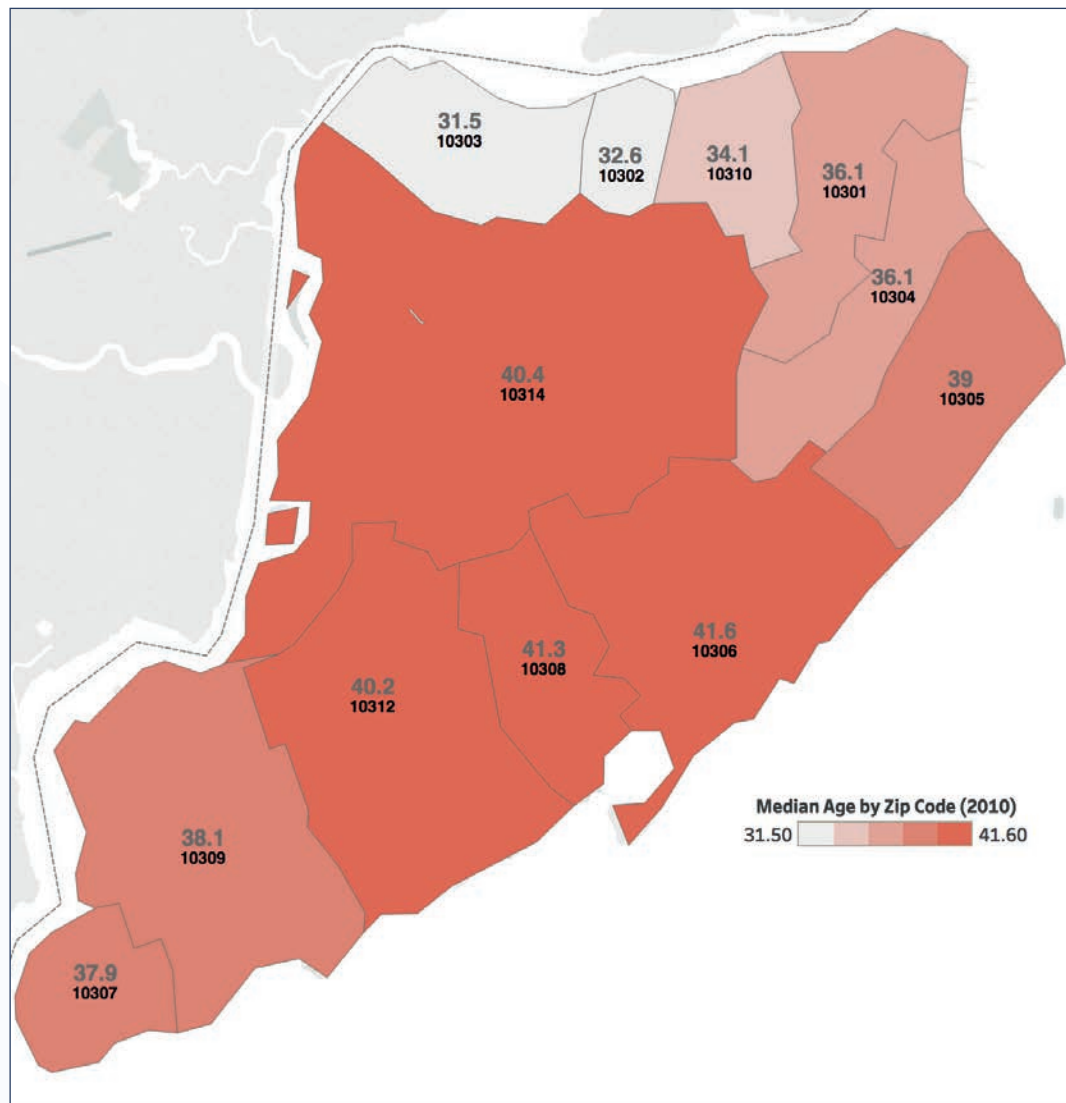


Source: 2016 Overdose Response Initiative, Richmond County DA's Office as of 1 May 2017

“It’s Not a Youth Problem Like People Thought Originally”

A majority of interviewees said the epidemic affected people of all ages. Only one interviewee, an outpatient treatment provider, alleged that people with opioid addiction on the island were mainly in their late teens to early twenties. A law enforcement official told us that “[the drug addiction crisis was] not a youth problem like people thought originally.” This sentiment was repeated by both a person in recovery and a school drug counselor. The person in recovery, who now works as a peer advisor, related that the youngest person he had seen was “16 years old and the oldest was in their seventies.” This large age disparity was further confirmed by three academic researchers. Moreover, **Figure 3** shows that the median age for the Mid-Island is higher than in the southernmost part of the borough, while the lowest median age is in the North Shore.

FIGURE 3: MEDIAN AGE BY ZIP CODE – STATEN ISLAND, 2015



Source: U.S. Census Bureau, 2010

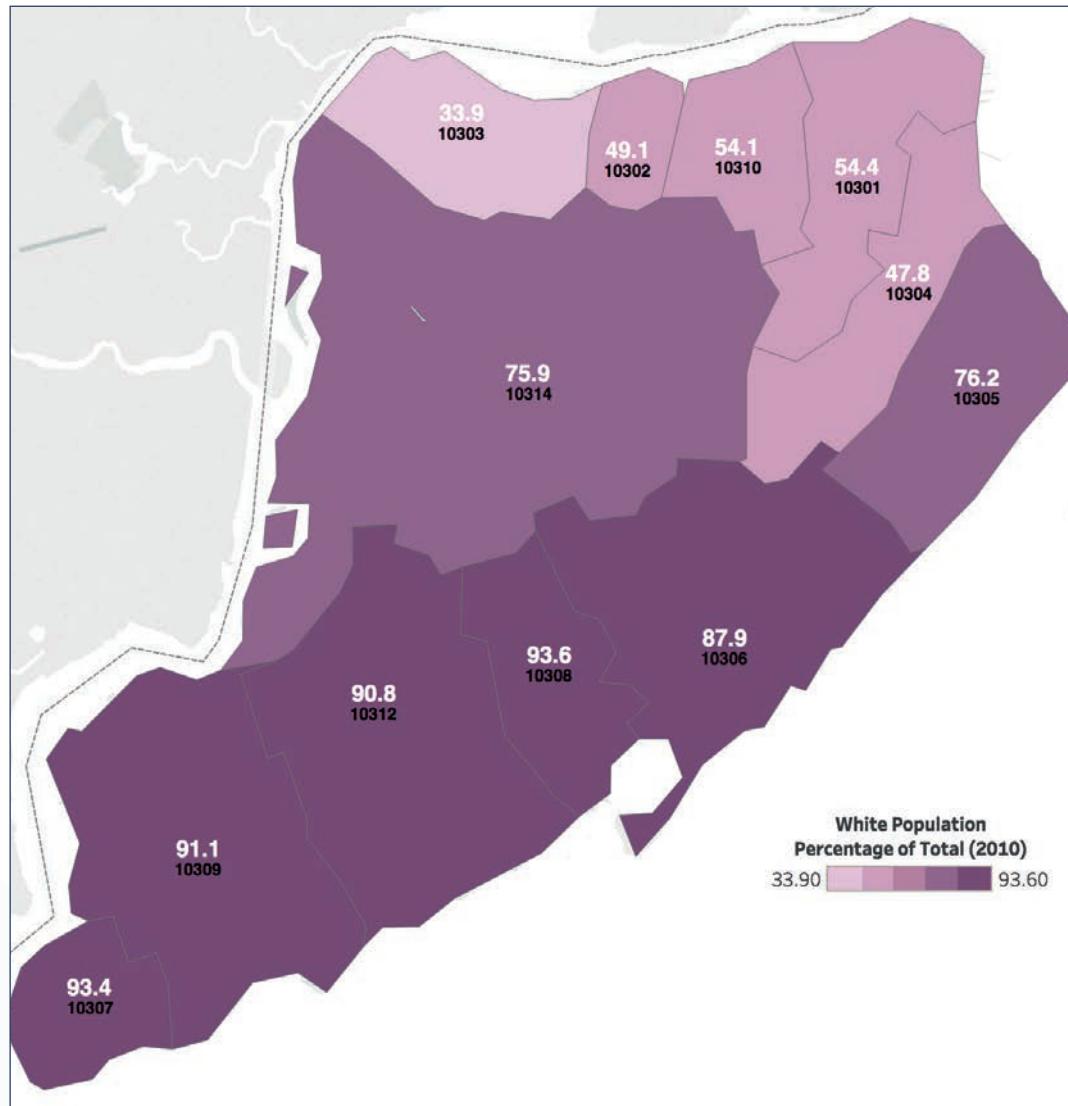
“It’s Not Concentrated in Any Ethnic Group”

The opioid addiction crisis on Staten Island has been portrayed by local media as a racially segregated issue that primarily affects the white population.⁶⁶ This was not reflected in our interviews. Although one political official and two treatment providers acknowledged that those seeking treatment were primarily white, they believed that this was not representative of distribution of the problem. According to one of the providers, “the amount of [minority people] who do not come through our doors [is concerning]. We hear about how these drugs have reached [these communities], but they’re not coming in for treatment. This is a problem.” This was further confirmed by a senior law enforcement official who said, “it’s not concentrated in any ethnic group.”

To visualize the racial distribution on the island, we mapped data on racial breakdown by zip code. **Figure 4** shows the South Shore has the highest concentration of white residents, at approximately 90 percent. The North Shore is more ethnically diverse. Each of the northernmost zip codes have at least a 20 percent representation of both black (**Figure 5**) and Latino/Hispanic (**Figure 6**) populations. The racial distribution does not overlap with the rate of overdoses in **Figure 2**. While zip code 10310 has the second-highest overdose rate on Staten Island, it is only 54.1 percent white, 30.5 percent lower than the island’s overall white composition (76.7 percent). Moreover, the two zip codes with the lowest overdose rates (10307 and 10309) also have among the highest percentages of white population (more than 90 percent).

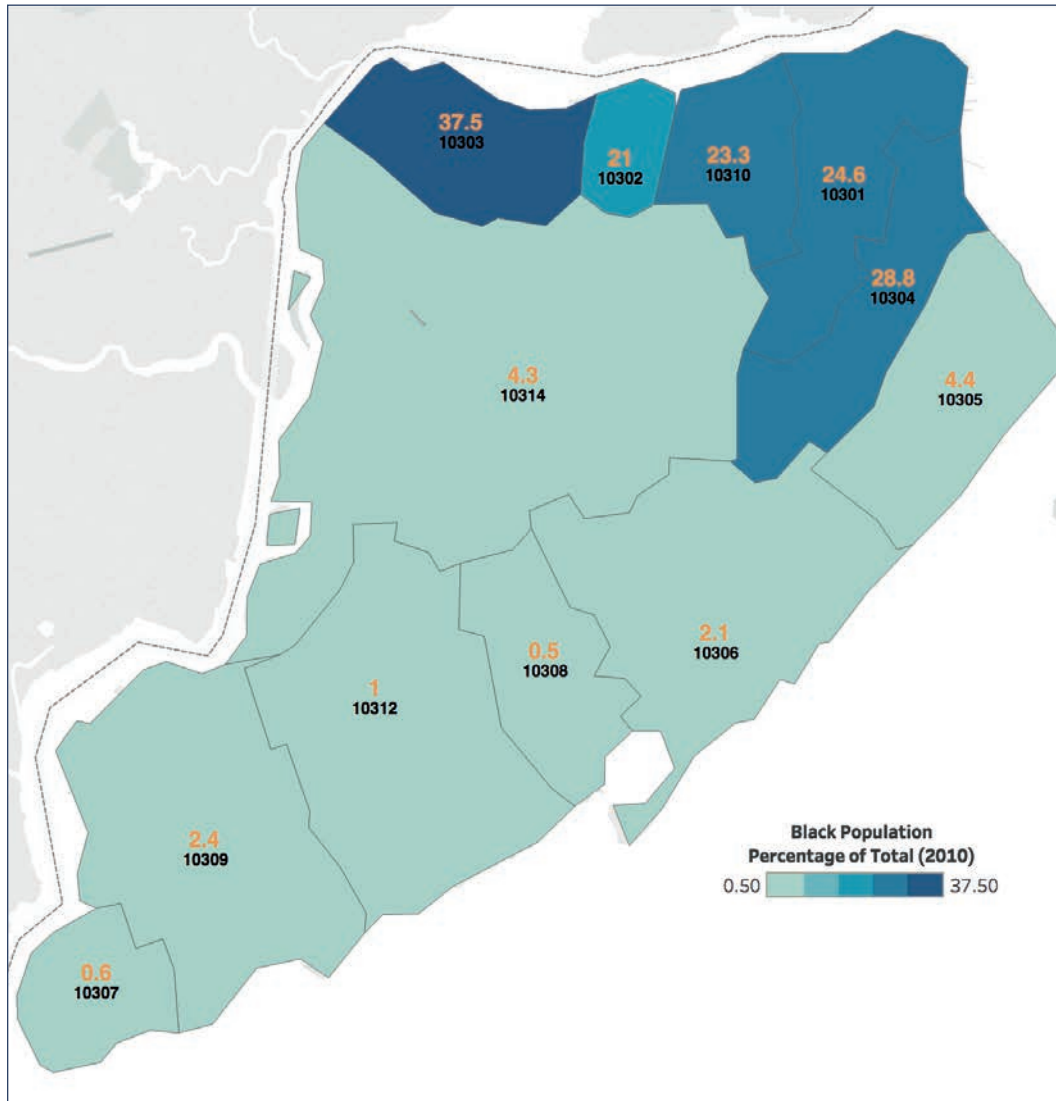
⁶⁶ Goodman, David, and Michael Wilson. “Heroin’s New Hometown.” *The New York Times*, 4 May 2014, www.nytimes.com/2014/05/05/nyregion/heroins-new-hometown-in-staten-island.html; Wilson, Michael. “A Death on Staten Island Highlights Heroin’s Place in ‘Mainstream Society.’” *The New York Times*, 2 Oct. 2016, www.nytimes.com/2016/10/03/nyregion/a-death-on-staten-island-highlights-heroins-place-in-mainstream-society.html; Wong, Marisa. “A Crisis Behind Closed Doors: Understanding Staten Island’s Heroin Problem.” *Metrofocus*, 23 Oct. 2014, www.thirteen.org/metrofocus/2014/10/a-crisis-behind-closed-doors-understanding-staten-islands-heroin-problem/.

FIGURE 4: WHITE POPULATION (%) BY ZIP CODE – STATEN ISLAND, 2010



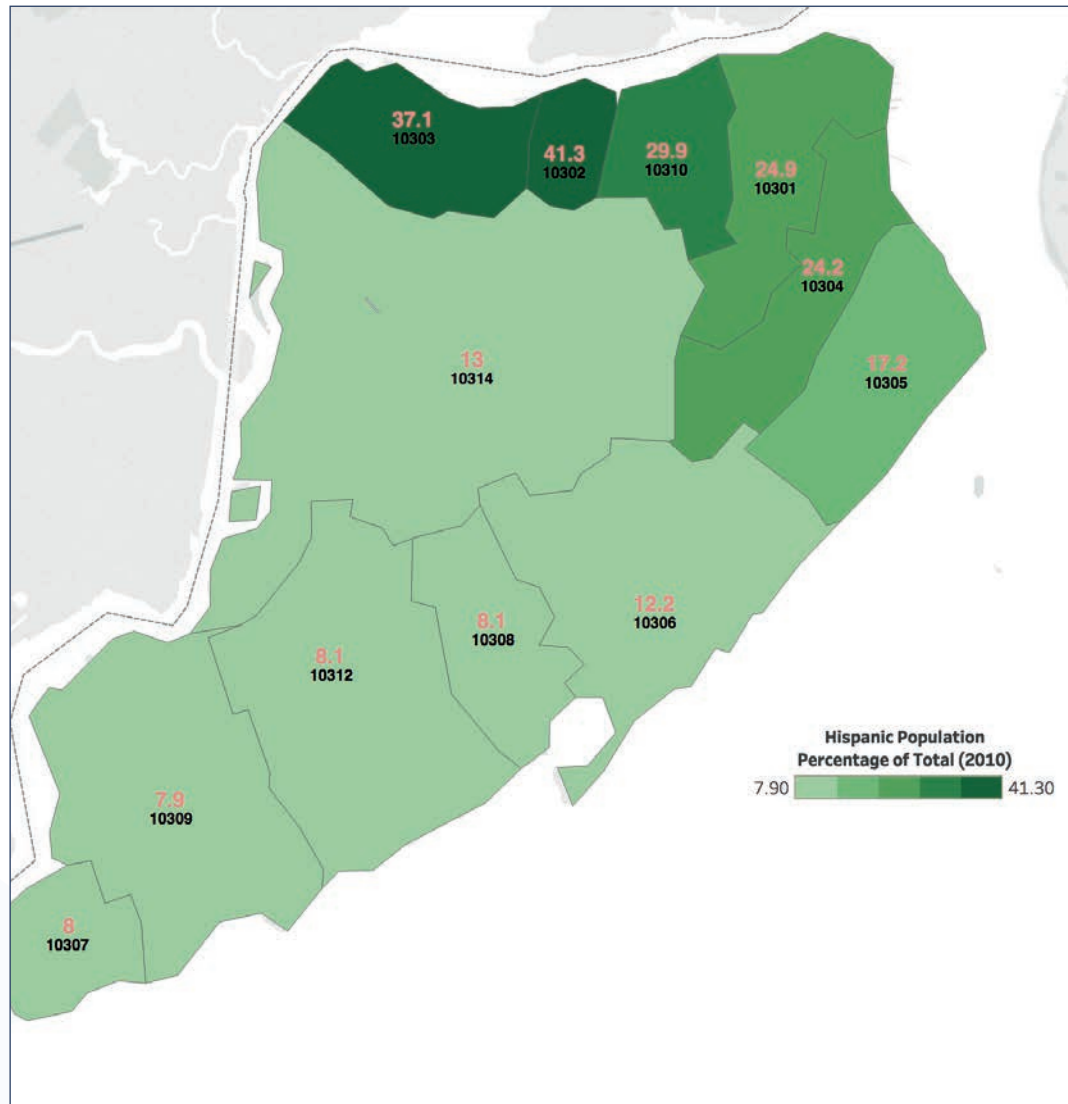
Source: U.S. Census Bureau, 2010

FIGURE 5: BLACK OR AFRICAN AMERICAN POPULATION (%) BY ZIP CODE – STATEN ISLAND, 2010



Source: U.S. Census Bureau, 2010

FIGURE 6: HISPANIC OR LATINO POPULATION (%) BY ZIP CODE – STATEN ISLAND, 2010



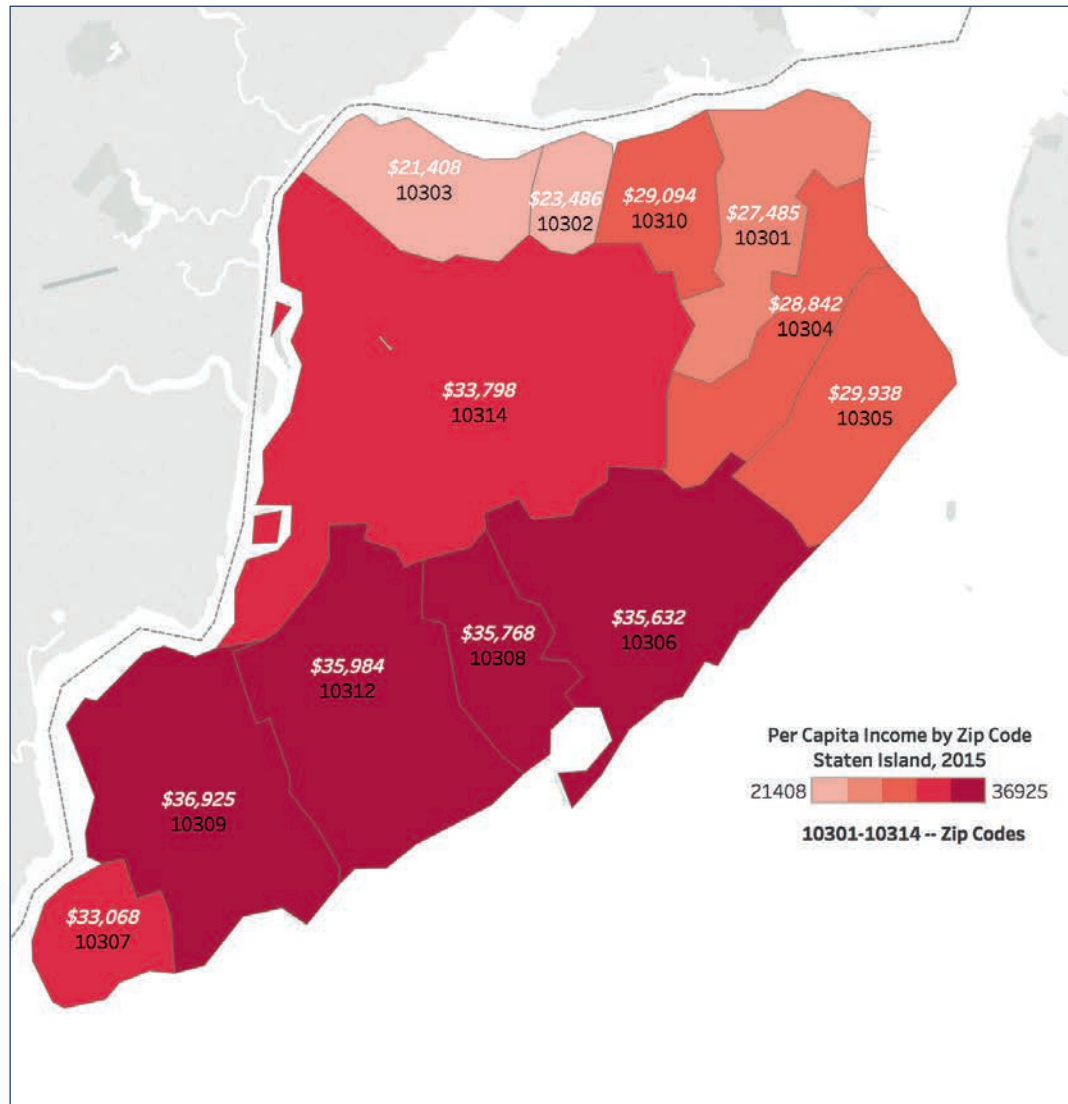
Source: U.S. Census Bureau, 2010

“They’re All From Different Socioeconomic Backgrounds”

Our interviewees also disagreed on the role of socioeconomic status in the opioid crisis. Three political officials claimed the epidemic hit the higher-income population harder than lower-income communities. Of these interviewees, two hypothesized that health insurance coverage rates had facilitated access to opioids, thereby laying the foundation for addiction. One political official claimed that there were two distinct populations addicted to opioids on the island: on the North Shore, the problem primarily affected “homeless people,” whereas on the South Shore “it’s different,” meaning that it impacts the affluent. This assertion was refuted by two treatment providers, who saw the issue as crossing all socioeconomic statuses. According to one clinic, their patients were “all from different socioeconomic backgrounds.”

To investigate the association between socioeconomic status and addiction, we mapped income per capita by zip code. This confirmed that the average income is higher on the South Shore than the rest of the borough. However, interestingly, the map more closely resembles racial demographics (**Figures 4–6**) than the distribution of overdoses (**Figures 1, 2**). This supports the notion that opioid addiction is blind to socioeconomic status.

FIGURE 7: PER CAPITA INCOME BY ZIP CODE – STATEN ISLAND, 2015

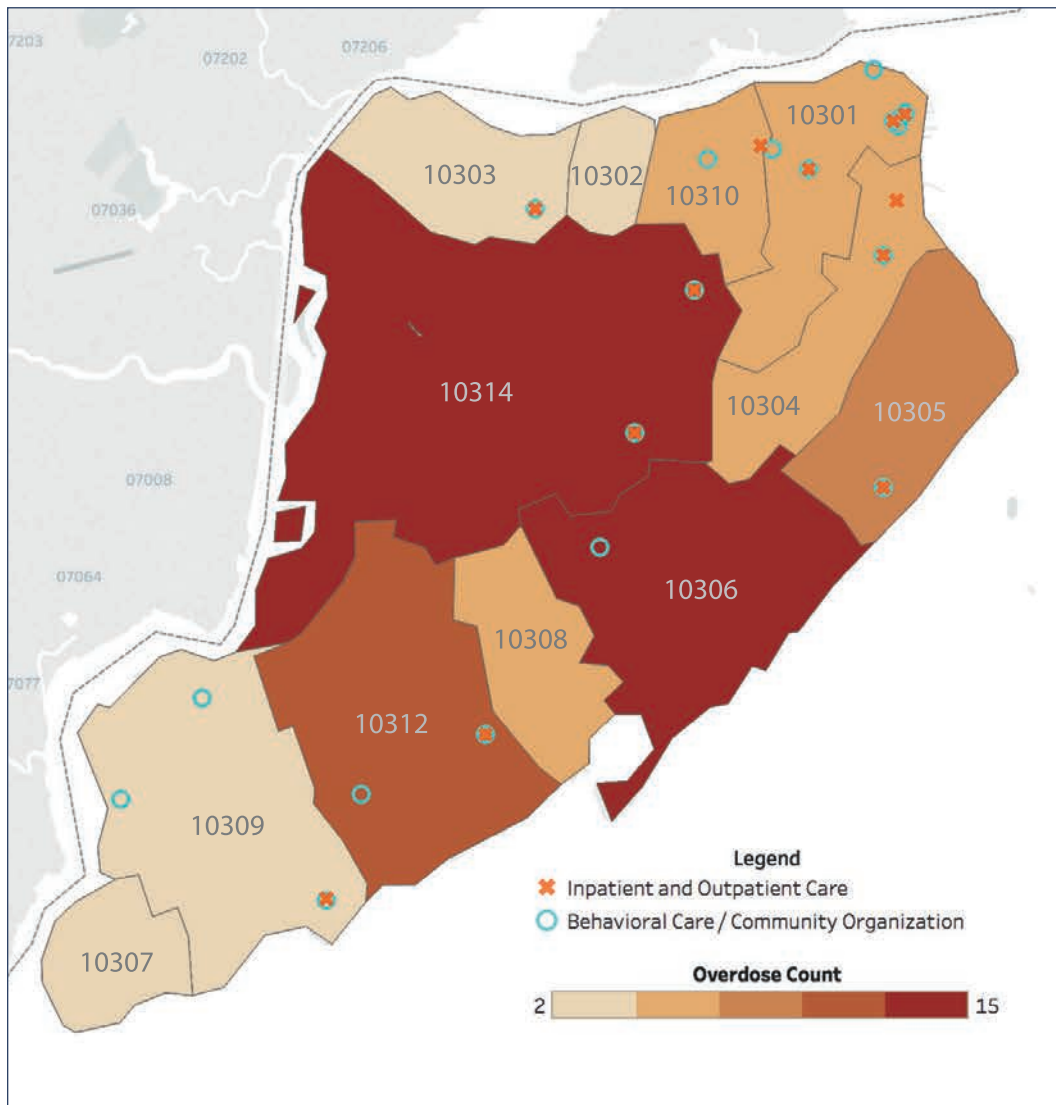


Source: U.S. Census Bureau, 2010

Finding 3: Treatment Gaps and Opportunities

In order to understand whether there are geographic gaps of substance addiction service provision on Staten Island, a series of maps of overdose count and population density were created and overlaid with treatment provider locations.

FIGURE 8: OVERDOSE BURDEN AND SUBSTANCE ADDICTION TREATMENT DISTRIBUTION – STATEN ISLAND, 2016



Source: 2016 Overdose Response Initiative, Richmond County DA's Office

Staten Island has 22 institutions that provide inpatient, outpatient, behavioral, or community services for substance use disorders as of May 1, 2017.⁶⁷ **Figure 8** shows the distribution of outpatient, inpatient, and behavioral care services, along with overdose count by zip code. There is a strong geographic cluster of clinics on the North Shore, which is consistent with the high overdose burden in that region. In total, there are 36 overdoses to 13 treatment locations in this region (a 0.36 rate). Services are generally more sparse in the Mid-Island, with 30 overdoses to 3 treatment locations (a 0.10 rate). The South Shore has 6 treatment locations (only one of which is an outpatient/inpatient clinic) to 23 overdoses (a 0.26 rate).

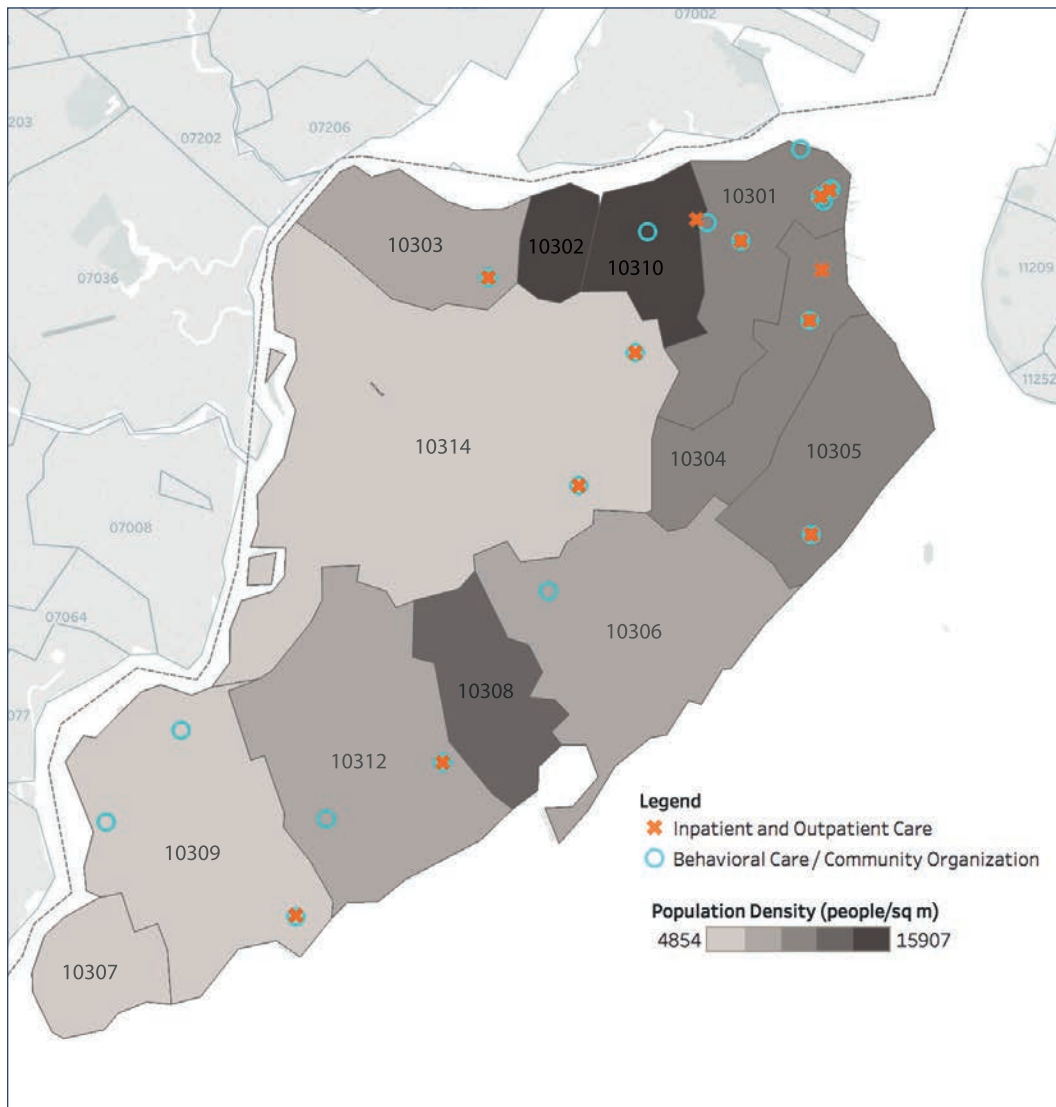
Figure 9 overlays the distribution of outpatient, inpatient, and behavioral care services with population density. In this map, we see again that clinics are clustered in the North Shore, where the population is denser than those of the South Shore and Mid-Island regions.

Zip code 10314, in the Mid-Island, is among the least densely populated areas on the island. It is, paradoxically, one of the zip codes with the highest number of overdoses observed. A hypothesis for this, stressed by several of our interviewees, is that isolation and boredom are aggravating factors for opioid addiction. The data presented in **Figure 9** suggest that zip code 10314 is a sparsely populated area with a high overdose count, possibly aligning with the conjecture that low population density gives rise to isolation and boredom, and thus opioid misuse. This is potentially exacerbated by the fact that zip code 10314 is only served by two inpatient or outpatient clinics, highlighting a significant geographic gap in treatment provision in this area.

The absence of services in areas heavily affected by overdose is evident elsewhere as well. As mentioned previously, 10306 is another area most burdened by opioid overdoses, yet it is served by only one Pills Anonymous support group. 10308 is also a particularly dense area absent of any substance addiction services.

⁶⁷ According to the analysis performed by Columbia University's capstone team, 2017.

FIGURE 9: POPULATION DENSITY AND SUBSTANCE ADDICTION TREATMENT DISTRIBUTION – STATEN ISLAND, 2017



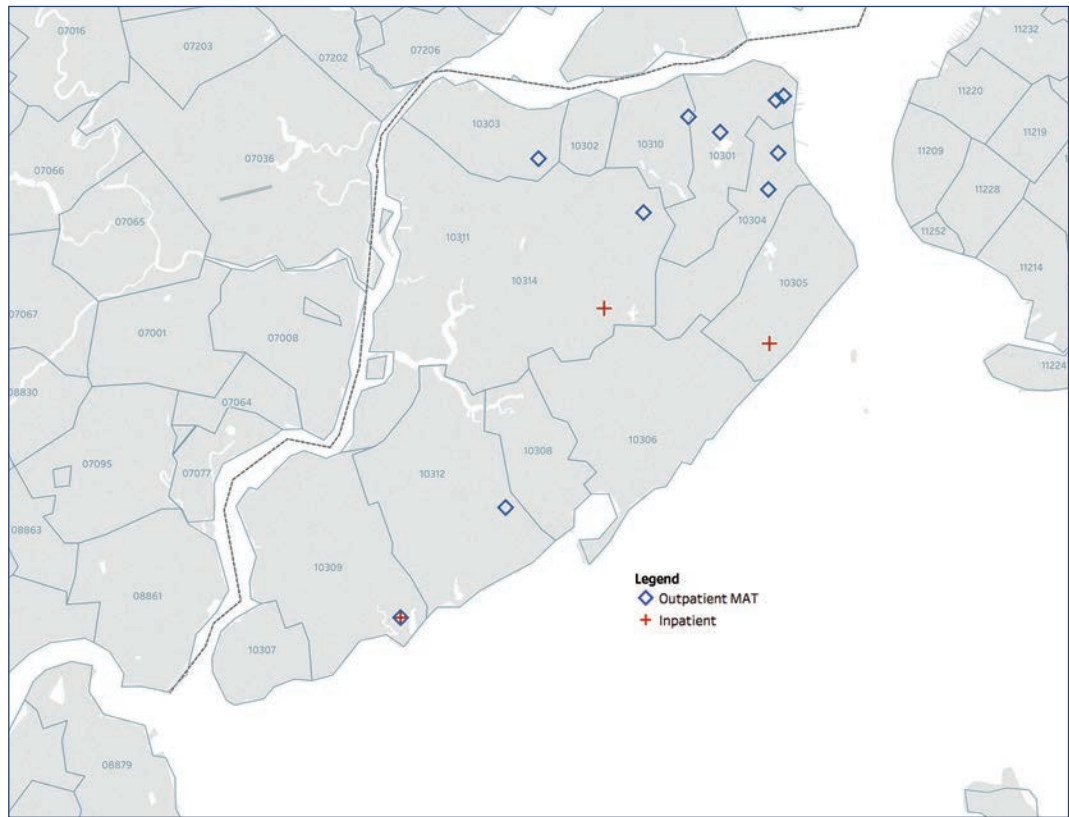
Source: U.S. Census Bureau, 2010

Distribution of Clinics: Outpatient Services

Outpatient clinics offer a variety of services. For this report we focus on the ones that provide MAT for opioid use. There are 10 such providers on Staten Island and most of them are concentrated on the North Shore, leaving the South Shore and Mid-Island underserved by outpatient facilities.

The majority of these clinics offer Suboxone, naltrexone, Vivitrol, or buprenorphine treatments. Staten Island University Hospital (two locations: one North Shore, one South Shore) is the only provider of methadone treatment on the island. See **Figures 10 and 11** for the distribution of clinics offering MAT and methadone treatment.

FIGURE 10: SUBSTANCE ADDICTION OUTPATIENT AND INPATIENT SERVICES DISTRIBUTION – STATEN ISLAND, 2017



Source: OASAS Database, 2017

FIGURE 11: METHADONE TREATMENT DISTRIBUTION – STATEN ISLAND, 2017



Source: OASAS Database, 2017

The two methadone clinics on Staten Island reported to be at full capacity or close to full capacity, with 200 out of 200 slots filled in the North Shore and 515 to 530 out of 550 slots filled in the South Shore. **Table 1** lays this information out. With only two available locations island-wide and with average use estimates ranging from 94 to 100 percent, there appears to be opportunity to expand methadone clinics on the island. While a few of our interviewees pointed to the stigma associated with undergoing methadone treatment and visiting methadone clinics, the numbers presented in **Table 1** indicate a high demand. Sparse provision of this type of treatment on Staten Island can be seen as a gap in opioid addiction service provision, posing a limitation on clinic-based treatment options.

TABLE 1: METHADONE CLINICS ON STATEN ISLAND, 2017

Methadone Provider	Capacity	Currently in Use	Utilization % As of April 2017
Staten Island University Hospital, South	550	515-530	94-96%
Staten Island University Hospital, North	200	200	100%

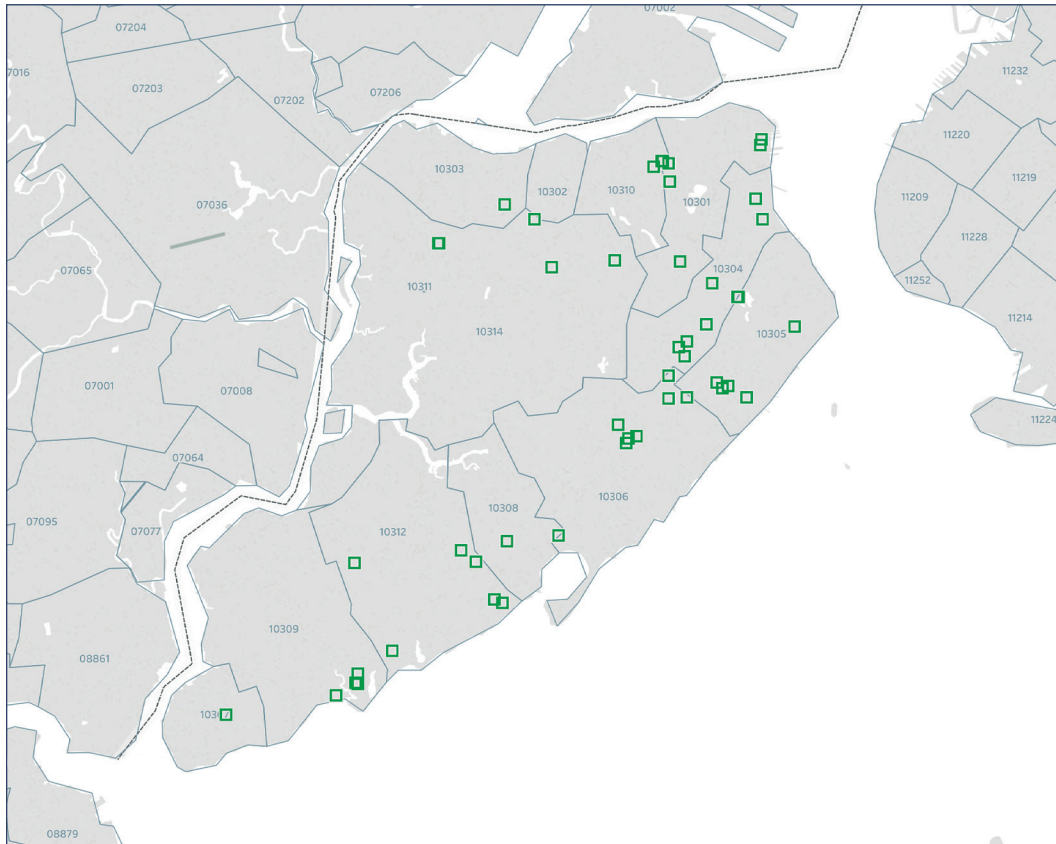
Aside from methadone, capacity and utilization of other types of MAT vary throughout the island. **Appendix A** shows data from clinics that were able to provide their capacity information.

Most of the clinics report no cap on their MAT slots, suggesting capacity is not a limitation for them. As for utilization, Silver Lake Support Services estimates their typical usage rate to hover around 80 percent for opioid patients. Community Health Action of Staten Island reported to have been in full utilization during the previous month, which led them to hire one additional Medical Doctor-level clinician to increase their treatment capacity. Given the individualized schedules for different types of MAT available it was difficult for other providers to estimate their utilization. Staten Island clinics do not use a uniform time frame (e.g. daily or weekly) when tracking their patient visits, which posed a limitation when gathering data on utilization.

Buprenorphine treatment on Staten Island is expanding. There are currently 61 licensed physicians who can prescribe buprenorphine according to SAMHSA’s database (see **Appendix C** for the full list of providers). This expansion is currently encouraged by the NYC Department of Health and Mental Hygiene, given the benefits of using this medication over others.⁶⁸ **Figure 12** shows the spread of licensed buprenorphine physicians on Staten Island. **Figure 13** shows the number of buprenorphine prescriptions per 100,000 population by zip code, based on patients’ zip code of residence.

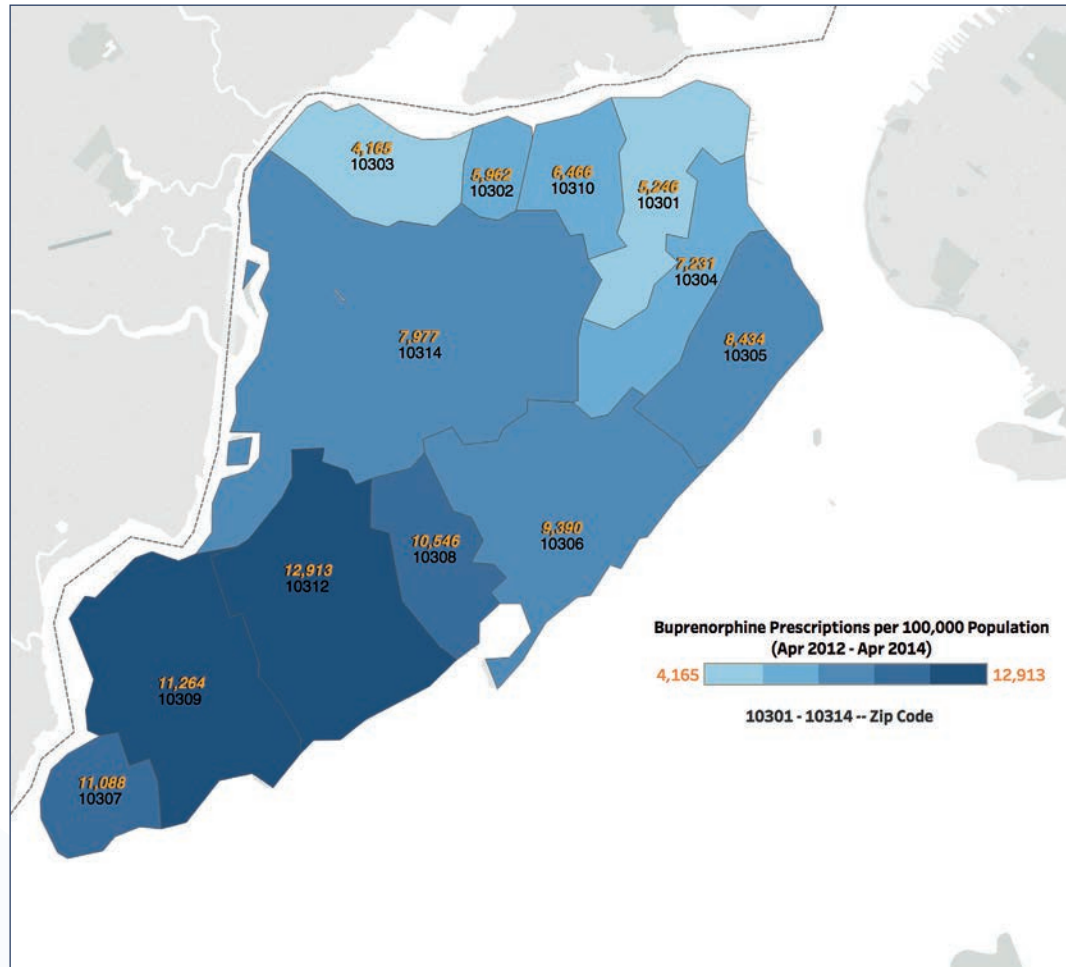
⁶⁸ Among these benefits are a lower risk of overdose and the flexibility of administering the treatment from physicians’ offices. The latter leads to more privacy for the patient – who may not feel comfortable frequenting substance addiction clinics – and to increased availability of treatment locations.

FIGURE 12: DISTRIBUTION OF BUPRENORPHINE LICENSED PHYSICIANS – STATEN ISLAND, 2017



Source: SAMHSA Buprenorphine Treatment Physician Database, accessed: April 7, 2017

FIGURE 13: NUMBER OF BUPRENORPHINE PRESCRIPTIONS PER 100,000 PEOPLE BY PATIENTS' ZIP CODE OF RESIDENCE – STATEN ISLAND, 2012-2014



Source: NYS Freedom of Information Request on Buprenorphine Prescriptions by Zip Code, 2014.

We can see from these figures that the distribution of buprenorphine-licensed physicians follows the same trend as the distribution of clinics: There is a heavy cluster on the North Shore, where population is denser and more overdoses occur. The buprenorphine prescription rate by patients' zip code of residence, however, is higher in the South Shore, suggesting that despite their lower number of registered physicians, this region sought out more of this kind of treatment in recent years. The higher number of prescriptions in the South Shore is aligned with its lower number of overdoses, as well as the higher socio-economic status of the region. In order to encourage this favorable trend, we see the need for more buprenorphine-certified physicians in the South Shore (where there is strong demand) and in the Mid-Island (where the overdose burden is highest and where there are fewer buprenorphine physicians).

In sum, outpatient MAT provision is limited on the island. Clinics are clustered on the North Shore, with only one available clinic in the Mid-Island and two in the South Shore. There are currently two locations offering methadone treatment, both of which are typically close to capacity. Buprenorphine-licensed physicians are also concentrated on the North Shore, where the number of prescriptions per 100,000 is the lowest. Buprenorphine is mostly prescribed in the South Shore, where the overdose count is the lowest on the island.

Inpatient and Residential Services

There are three inpatient and residential clinics on Staten Island (see **Figure 10** for geographic distribution). While inpatient clinics offer intensive treatment, residential facilities provide medical monitoring in a more home-like setting.

All three inpatient providers on the island offer rehabilitation, and only one offers detox treatment (see **Table 2** for breakdown). All three providers offer services for male adults and adolescents while only two of them offer beds for females.⁶⁹ This points to a gender gap in the available inpatient clinics for opioid addiction.

The distribution of inpatient and residential clinics is sparse across the island. Two of the clinics reported to be at full capacity as of April 2017, while one reported to be at 81 percent capacity. Camelot Counseling, in particular, reported to usually be 10 percent overcapacity and with a waitlist of 3-5 people.⁷⁰

The two maximum-capacity numbers outlined in **Table 2**, combined with the limited number of providers across the island, potentially indicate a need for expanding this type of treatment. In fact, one of our interviewees shared that while he was in recovery, it took him two weeks to find an inpatient provider with available beds. Other interviewees, such as the administrator of an outpatient clinic, commented on the insufficient provision of inpatient detox, and the fact that currently only one clinic offers this type of service. Lack of inpatient detox was emphasized to us as “a huge limitation” and an aggravating factor that drives patients to leave the island in order to seek treatment. However, one administrator of a behavioral care clinic said “some people don’t want to go through the whole clinical side” of fighting their addiction, implying that expanding inpatient services may not be the best idea.

⁶⁹ Staten Island University Hospital and South Beach Addiction Treatment Center.

⁷⁰ As a result, they are in the process of building two new facilities that will increase their capacity by 35 and 25 beds, respectively, and possibly extend their services to women.

TABLE 2: INPATIENT AND RESIDENTIAL SUBSTANCE ADDICTION CLINICS ON STATEN ISLAND, 2017

Provider	Capacity (Beds)	Currently in Use (Beds)	Utilization % As of April 2017	Type
Staten Island University Hospital, South	23 - Detox 24 - Rehab	38	81%	Detox and rehab
South Beach Addiction Treatment Center	30	30	100%	Rehab
Camelot Counseling	69	69	100%	Rehab

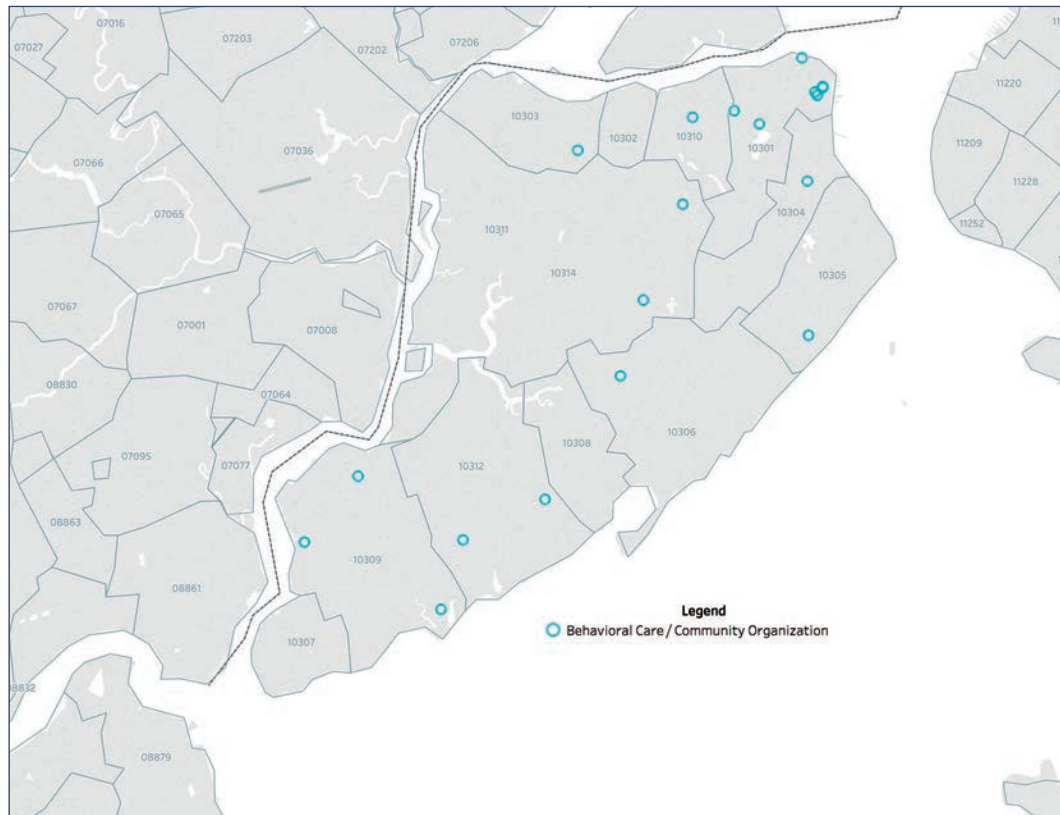
To summarize, inpatient services on Staten Island are severely limited, with two clinics offering rehab and one offering both rehab and detox. Out of these three clinics, only two admit women. Our interviewees stressed the need for more detox options, given that the one that is available only has capacity for 23 beds. Clinics typically operate at capacity or close to full capacity, and lengthy waitlists are not uncommon. Patients sometimes must wait weeks to access services or leave the island altogether.

Behavioral Care and Community Outreach

There are many organizations on Staten Island that offer individual and group counseling, behavioral therapy, and community programs specifically for substance addiction. Nineteen organizations are identified in this report, which is non-exhaustive (see **Appendix B** for the list of providers).

Figure 14 shows the distribution of behavioral services on the island, which includes most of the clinics mentioned in the outpatient and inpatient sections of this report. Additionally, the map includes sober-living halfway houses, community outreach organizations, and support groups.

FIGURE 14: SUBSTANCE ADDICTION BEHAVIORAL AND COMMUNITY SERVICES DISTRIBUTION – STATEN ISLAND, 2017



Source: OASAS Database, 2017

The spread of behavioral care is more uniform island-wide when compared with outpatient MAT and inpatient clinics. While most services are still clustered on the North Shore, there are five behavioral locations in the South Shore, a clear contrast with only one available outpatient/inpatient facility in the same area.

According to our interviewed sources, the capacity for substance addiction behavioral care on the island is sufficient and in fact may be underutilized. At St. Vincent’s Services, for example, there are three available counselors with an allocated caseload of 50 patients each. As of April 2017,⁷¹ their utilized capacity was 20 patients per counselor, meaning that at the time they were underutilized by 90 patients. Exceptions to this, however, are halfway houses and sober-living residential communities. These are reported to be consistently at full capacity. Harrison House, for example, offers a total of 88 beds across eight different buildings, all of which were occupied at the time of contact and with a wait list in place.

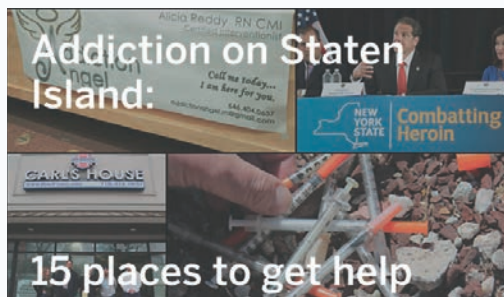


Photo Credit: SILive/SI Advance

⁷¹ Call made on April 15, 2017 by one of our team members. Information given by one of the counselors.

While number of counselors does not appear to be an issue across the island, it was brought to our attention that number of peers is currently limited and that this is an aspect of behavioral care that could be expanded. Peer educators are well positioned to influence a patient's beliefs and behaviors by being non-authoritative and often sharing the same background as the user. The cost of certification and training peers, however, has kept organizations from expanding their programs, despite their perceived success.

In sum, behavioral services on the island appear to be underutilized as counselors could maintain higher caseloads. Conversely, halfway houses and sober-living communities are at capacity and with waitlists, suggesting that the type of behavioral treatment that patients seek is more immersive and different from standard counseling. Another area that could be improved is the network of peers; their numbers are limited and not all clinics offer this service given the prohibitive cost of certifying new peers.

Finding 4: Role of Law Enforcement

Staten Island is home to 10 percent of New York City's police officers, but home to only 5 percent of the city's population. This number is even more striking when one considers that only 58 percent of NYPD officers live within the five boroughs.⁷² In fact, so many police officers live on Staten Island that it is something of a joke among locals: Everybody has an uncle, neighbor, father, or sister who works for the NYPD. As such, the police officers on Staten Island are uniquely positioned to build trust and examine the evolving role they can play in combating the opioid crisis. According to the City Charter, the role of police is to protect people and property. With this crisis on hand, the police's protective role has expanded to also include public health measures.

Staten Island District Attorney Michael McMahon has shown staunch dedication to ending the opioid crisis, first with the creation of the Overdose Response Initiative in January 2016,⁷³ and now with multiple new programs and research projects, including our report. McMahon's dedication to this issue and his leadership are encouraging, and show how the role of law enforcement need not only be focused on punishment—but also on crime prevention through strengthening communities. Via interviews with high-ranking police officials on Staten Island, we were able to understand how the NYPD approaches the current problem.

Current Situation

Our interviews accentuated the importance of trust in how and why people interact with law enforcement, particularly when it comes to drug-related crimes or incidents. Police play a unique role within the communities they serve and protect, and one that involves a delicate balance between enforcement and support. One law enforcement official described “treating victims as victims,” and not criminalizing their behaviors, as a key aspect in their work with overdose survivors.

However, relationship building is always a work in progress. The traditional role of police officers has been to take punitive action and arrest dealers. According to an interview with a prominent

⁷² Evan, Lauren. “Interactive Map Shows Where NYPD Officers Live.” *The Village Voice*, 21 Oct. 2015, www.villagevoice.com/news/interactive-map-shows-where-nypd-officers-live-9249670.

⁷³ Wilson, Michael. “A Death on Staten Island Highlights Heroin's Place in ‘Mainstream Society’.” *The New York Times*, 2 Oct. 2016, www.nytimes.com/2016/10/03/nyregion/a-death-on-staten-island-highlights-heroin-s-place-in-mainstream-society.html.

youth organization, many people on Staten Island are “afraid of the DA,” and as such, no one uses the office as a resource. Police say they recognize that they are often not a welcome party when they show up at someone’s doorstep. Still, officers are aware of the opioid crisis and are trained to use naloxone to save people who are overdosing.

Coordinated Services and Creative Options

According to information gathered during a February RxStat meeting (a monthly group meeting to discuss collected data on the opioid crisis across agencies and around New York City), 70 percent of individuals who are brought back from overdose using naloxone have at least one prior arrest, and 30 percent have no criminal record. This suggests that there has been some opportunity for prior intervention with 70 percent of people who are saved with naloxone. At its most productive, an arrest is an opportunity for treatment intervention; those addicted to opioids can be referred to aid, coordinated counseling services, or rehabilitation.

The HOPE program, launched in January 2017, is a strong example of an effort that seeks to leverage the interactions that people with addiction have with the criminal justice system. HOPE gives people who are arrested for low-level drug offenses the opportunity to seek treatment instead of punishment. The program relies heavily on peer advisors, who make the initial pitch to the arrested party. Having overcome addiction themselves, the peers are in a unique position to connect with the arrestee and encourage them to utilize this frightening situation to take a meaningful step away from addiction. Although a relatively new strategy, the HOPE program has seen measured success.

HOPE is modeled in part after Law Enforcement Assisted Diversion (LEAD), a pre-booking diversion program in Seattle, Washington, that targets low-level drug offenders.⁷⁴ The LEAD program not only leads to lower recidivism rates among drug offenders, but a recent review showed that those who participated in the program also experienced better long-term outcomes, and were more likely to find housing and employment post-arrest. Although it is too early to say whether HOPE is working as intended, LEAD’s success is a good indication that law enforcement-driven diversion can be effective in reducing drug crimes and in improving the lives of people with addiction.⁷⁵

⁷⁴ Law Enforcement Assisted Diversion, leadkingcounty.org/.

⁷⁵ Clifasefi, Seema L. “LEAD Program Evaluation: The Impact of LEAD on Housing, Employment and Income/Benefits.” *Harm Reduction Research and Treatment Center University of Washington – Harborview Medical Center*, 31 Mar. 2016, static1.1.sqspcdn.com/static/f/1185392/27047605/1464389327667/housing_employment_evaluation_final.PDF?token=B0%2FTTSBe5T6ss4WytQP%2BJTkXZpM%3D.



HOPE Heroin Overdose Prevention & Education

HOPE was developed for Staten Island by law enforcement agencies, public health advocates, and community partners.

HOPE redirects people arrested for drug possession crimes to health services in the community instead of going to jail or being prosecuted.

YOU CAN AVOID A CRIMINAL RECORD IF YOU ENGAGE IN SERVICES

HOPE redirects low-level drug offenders to community-based health services instead of jail.

Photo Credit: Richmond County DA’s Office

Finding 5: Continuum of Care

By speaking with six people in recovery, our team was able to glean several findings about what it is like to be a part of the opioid care system on Staten Island. Two suggestions we heard many times were that there needs to be significant investment in aftercare and reentry services, and better opportunities for detox.

Aftercare

“If someone were to give me \$1 million, I would focus on aftercare,” said an interviewee at a local nonprofit that connects people with opioid addiction to counseling and medical services. The person who said this is both an administrator and someone in recovery. He said when someone gets out of rehab and has nothing to do, true healing cannot occur. “We need to keep people occupied,” he said.



Photo Credit: Carl's House - May 2017

Carl's House, a nonprofit in the Mid-Island, aims to build bridges between those who are addicted to opioids and caregivers who can help them. The group works to help those in recovery connect with community-based organizations that provide activities, such as gym classes and softball games (Carl's House started their own league in April). The goal is to provide those returning from rehabilitative services with things to do so they do not fall back into old habits. One interviewee in recovery said that after he returned home from rehab, all he wanted to do was work out and be active, saying, “you can't do that when you're on heroin. You go away to rehab, you come home, and then you're back

in the wilderness again.” Indeed, according to our interviewees, many people die of overdose during this post-rehab reintegration phase.

Limited Detox Care

All of the people in recovery with whom we spoke said they had been, at some point, turned away from detox. All cited the same reason: that heroin withdrawal symptoms weren't deadly, and because of that, they were told they were not eligible for a slot in detox. Many of them described excessively drinking alcohol or taking benzodiazepines before going to the clinic in order to claim alcoholism or addiction to “benzos” as a reason for requiring detox care. The simulation of alcohol or benzodiazepine withdrawal, both of which can be fatal, makes it easier to get a detox slot, they said. This is a dangerous strategy, as the combination of opioids with any of these drugs can suppress breathing. This is a clear gap in the continuum of care.

Another gap we found was that patients said some treatment providers didn't treat them well. Two people in recovery whom we spoke with at the YMCA counseling center said they went to the YMCA, ultimately, because the staff there “didn't treat them like shit.” Two interviewees in recovery were also confronted with doctors who did not want to treat them, believing those with opioid addiction to be less deserving patients.

“You go away to rehab, you come home, and then you're back in the wilderness again.”

Finding 6: Knowledge and Education Gaps

The crisis is compounded by a lack of adequate public awareness programming within Staten Island. The borough faces a significant gap in imparting knowledge of basic substance addiction information around symptoms of opioid dependency, treatment possibilities or comorbidity of addiction and other mental health concerns. The various efforts that do exist often lack coordination, which results in the dissemination of many disjointed messages. The lack of knowledge, the disjointed campaign efforts, and the gap in public awareness contribute to the perpetuation of stigma and shame (described in previous sections) that allows the often-articulated culture of denial to saturate the island.

Resource Location and Access

Interviewees said many families coping with opioid addiction do not know what resources or services are available. Bridge Back to Life described how one of the biggest problems they see involves connecting people to resources they usually do not know about. Moreover, those who do know about resources often have difficulty accessing them. An individual in recovery stated, “there are services on the island, but no one knows who you guys are.” One high-level individual



Photo Credit: Carl's House - May 2017

involved with the Office of the Special Narcotics Prosecutor stated their interest in seeing “a lot more education, so that users can make informed choices,” and explained how while there are no perfect solutions to this problem, there has been a significant lack of coordinated education campaigns that share a unified message. National statistics also demonstrate that only one in 11 individuals addicted to drugs seeks help.⁷⁶ While there are many routes to recovery, Staten Island will continue to face barriers to stemming the crisis without disseminating a basic understanding of the resources available to meet an individual’s unique addiction recovery needs.

Mental Health Awareness

Additionally, there is a lack of conversation around the symptoms associated with addiction, as well as the comorbidity of opioid addiction and other mental health problems. As described by one treatment provider on Staten Island’s North Shore, “there are folks who have mental health issues who use drugs to cope, and then there are people who use drugs who end up with mental health issues as a result. It’s the chicken or the egg.” This statement accurately demonstrates an under-recognized dimension of addiction needed to address the opioid overdose crisis. According to a study by Johns Hopkins Behavioral Pharmacology Research Unit, nearly half of treatment-seeking opioid users reported other diagnosable psychiatric concerns.⁷⁷ These concerns include anxiety, PTSD, or depression, which may lead to self-medication to reduce the symptoms.^{78 79}

⁷⁶ National Institute on Drug Abuse. “Treatment Statistics.” Updated Mar. 2011, www.drugabuse.gov/publications/drugfacts/treatment-statistics.

⁷⁷ Bruner, Robert K. “Psychiatric and Substance Use Comorbidity Among Treatment-Seeking Opioid Abusers.” *Arch Gen Psychiatry*, vol. 54, no. 1, 1997, pp. 71-80, doi:10.1001/archpsyc.1997.01830130077015.

⁷⁸ Martins, Silvia S., et al. “Pathways between nonmedical opioid use/dependence and psychiatric disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions.” *Drug Alcohol Depend*, vol. 103, no. 1-2, 2009, pp. 16-24, doi:10.1016/j.drugalcdep.2009.01.019.

⁷⁹ Martins, Silvia S., et al. “Mood and anxiety disorders and their association with non-medical prescription opioid use and prescription opioid-use disorder: longitudinal evidence from the National Epidemiologic Study on Alcohol and Related Conditions.” *J Psychol Med*, vol. 42, no. 6, 2012, pp. 1261-72, doi:10.1017/S0033291711002145.

Many interviewees agreed that clearer articulation of the connection between mental health and drug use is a key component to solving the opioid crisis. An outpatient treatment facility in the South Shore estimated 30 percent of their patients with substance addiction have an additional mental health diagnosis. This elevated rate of comorbidity was also discussed at a February 2017 RxStat forum.

It became clear during our interviews with healthcare providers and people in recovery that a lack of awareness of the connection between mental health and addiction is also reflected in the limited understanding of physiological and psychological symptoms of opioid addiction. People often do not know the risk factors that lead to addiction or lack alternative coping skills to manage the stress or pressures that lead to opioid use and addiction. Without conversations around the prevalence of comorbidities or mental health, treatment options for addiction are further stigmatized, and the crisis persists.⁸⁰

Finding 7: Adequacy of Current Drug Awareness Programs

Disjointed Efforts



Fifth graders complete the Too Good for Drugs program, initiated by Staten Island Borough President James Oddo.

Photo Credit: Richmond County DA's Office

For example, New York State's Department of Health (via its Mental Health and Prevent Substance Abuse Action Plan) has an education program aimed toward opioid addiction, and SAMHSA



Health officials offer free training on how to administer naloxone, an overdose reversal medication.

Photo Credit: New York State Assembly

A number of educational campaigns do exist within the island, but public awareness campaign efforts are often disjointed and lack cohesive messaging.⁸¹ The RCDA explained how SAMHSA, the NYPD and RCDA initiated separate preventative ground-level campaigns that distribute naloxone kits or promote new drug-related curricula in schools, but little has been done to coordinate these efforts. For

example, New York State's Department of Health (via its Mental Health and Prevent Substance Abuse Action Plan) has an education program aimed toward opioid addiction, and SAMHSA has one as well. By integrating their efforts these groups could amplify their impact, but there is limited coordination between them. Resources could be more efficiently allocated and message delivery strengthened if efforts were coordinated and shared a cohesive centralized message.

⁸⁰ The City of New York Office of the Mayor. "Healing NYC - Preventing Overdoses Saving Lives." 2017, www1.nyc.gov/assets/home/downloads/pdf/reports/2017/HealingNYC-Report.pdf.

⁸¹ See Appendix E for a list of public awareness and education campaigns shared with us during interviews.

The majority of awareness efforts focus on youth curriculum for schools or preventative dissemination of naloxone kits and education around their use. The NYPD has taken on an important role in this effort, not only by administering the antidote when officers encounter an overdose, but also by following up with those they have saved, by providing naloxone kits and trainings to people with opioid addiction and their families. In 2015 the city distributed 7,000 naloxone kits to providers in the borough. These kits saved 82 lives from 2014-2016.⁸² As of 2016, 15,000 kits had been distributed citywide.⁸³

While naloxone dissemination trainings are proving effective, further preventative messages must also be communicated. With regards to prescription drug disposal, one law enforcement official explained how the borough has “a surprising number of [collection] boxes around the island,” but that few people use them. The interviewee explained “it comes back to awareness. We’re hoping that if people could think about those pills and where they are, we’d get somewhere.”

Physicians Training and Direct Education

Our interviews also demonstrated gaps in institutional support provided to primary physicians, medical staff, and other service providers licensed to prescribe opioid-maintenance prescription drugs. According to one nonprofit inpatient service provider, hospital practices cater to brief interactions with patients. An official at the organization said the average physician has 12 minutes with each patient, leaving little time to identify individualized needs of a client struggling with opioid addiction. These practices do little to mitigate the crisis. He also described how practitioners, when faced with patients who know how to manipulate the medical system, may experience pressure to fill unnecessary prescriptions. Others may try to avoid patients who they presume suffer from an opioid addiction. Another mental health service provider shared her experience with the lack of training among physicians. She described how no one in an emergency room knew what to do with a young person escorted by the school to the hospital due to an overdose. This provider’s experience resonates with academic literature. Academic researchers at New York University and Columbia University describe how a “lack of institutional and provider network support” leaves physicians “ill-prepared to deal with high rate of comorbidities.”⁸⁴ According to one service provider interviewed, if doctors were given sufficient training and institutional support, medical professionals would have more effective tools to address this crisis.



Specialized training for medical practitioners can help turn the tide on the opioid epidemic.

Youth Education

Our findings revealed that many educational campaigns currently target children and adolescents with the hopes of preventing future generations from undergoing the same addiction crisis that



⁸² Rizzi, Nicholas. “56 NYPD Officers Honored for Using Anti-Overdose Drug to Save Lives.” *DNAinfo New York*. 15 Nov. 2016, www.dnainfo.com/new-york/2016/11/15/bloomfield/nypd-naloxone-saves-od-award-ceremony.

⁸³ The City of New York Office of the Mayor. “Healing NYC - Preventing Overdoses Saving Lives.” 2017, www1.nyc.gov/assets/home/downloads/pdf/reports/2017/HealingNYC-Report.pdf.

⁸⁴ Mendoza, Sonia, et al. “Shifting blame: Buprenorphine prescribers, addiction treatment, and prescription monitoring in middle-class America.” *Transcult Psychiatry*, vol. 53, no. 4, 2016, pp. 465-87, doi: 10.1177/1363461516660884.



Richmond County Assistant District Attorney Adam Silberlight presenting the “NO D” program at Staten Island Technical High School.

Photo Credit: Richmond County DA’s Office

currently affects young- and middle-aged adults. Two of the programs that were described by service providers and politicians in detail have been shown to be effective and well received.

The first of these was piloted by the New York State Office of Alcohol and Substance Abuse Services, which has developed and implemented an evidence-based curriculum targeted toward fifth-grade students. The group trained up to 12 officers from the police academy in how to teach a curriculum on prevention of substance abuse or addiction. Officers are paired with a teacher in a school and teach 10 lessons, one per week for 10 weeks. This program graduated about 330 students in 2015. According to a high-level law enforcement official, the program was “very well received” and was expanded to the entire island last year. Based on its success, the Department of Education, RCDA, the New York State Assembly and State Senate, the NYPD Foundation, Police Union, and United Federation of Teachers (UFT) Teachers Union are partnering to pilot a more interactive curriculum that will reach students in seventh to ninth grades. One creator explained, “we are investing in our youth now, trying to keep them alive till we can get better care.”

Interviewees also described another program called Youth First, which is designed to help parents see the signs of addiction and recognize whether their child might be lying about their drug use. While it is clear that Youth-First programming has early buy-in from the community, there still seems to be a lack of educational resources for those who are beyond school age. One treatment provider said “the most surprising part [about the crisis] is when you look at the ages it goes across two or three generations. It’s not a youth problem like people thought originally. There is a good amount of people in their 40s and 50s.” While some adult-focused programs do exist, there are fewer educational resources for these age groups.

“It’s not a youth problem like people thought originally. There is a good amount of people in their 40s and 50s.”

Recommendations

In order to address the gaps and findings we identified, we make the following recommendations:

Recommendation 1: Provide access to opioid addiction services where they are most needed.

Expand Medication-Assisted Treatment Options in the Mid-Island Region

The Mid-Island region, which is severely afflicted by the opioid epidemic, is sparsely served by addiction clinics of any variety. We recommend enhanced distribution of clinical care directed to the provision of MAT to better serve the Mid-Island. Improvements there would not only enhance access to its immediate vicinity, but also to the North and South Shores.

Expand Methadone Provision

Currently, there are only two methadone providers on the island and both operate at or close-to full capacity. We recommend additional research be done to determine the potential benefit of expanding methadone provision throughout the island.

Increase Inpatient Detox Capacity

Currently, there is only one inpatient detox clinic on the island with a limited capacity of 23 beds. Expanding capacity would allow more patients to get treatment and reduce the need for individuals to seek treatment outside the borough.

Sponsor Physicians to Become Buprenorphine Certified

We recommend the initiation of a program that sponsors more physicians to prescribe buprenorphine in the Mid-Island and South Shore. Both of these regions, despite having a higher buprenorphine prescription count per 100,000 population (based on patients' zip code of residence), have fewer licensed physicians than the North Shore. Partnering with existing initiatives such as ThriveNYC, which has already made strides to address this issue, would be a cost-effective way to achieve this goal.



The ThriveNYC initiative is a great step in the direction of solving the opioid crisis.

Establish Standards for Reporting Clinic Performance

In order to ensure that any future gaps in service provision are addressed, a standard set of criteria should be used by clinics to record utilization of their services, such as reporting their capacity based on weekly usage. Clinics currently track their utilization in mismatched ways, which makes analysis of service gaps difficult.

Recommendation 2: Create linkages in the system to ensure comprehensive, patient-centered care.

Create a Coordinated Referral System

There are many services that currently exist on Staten Island aimed at aiding those suffering from opioid addiction. However, there seems to be little coordination of services. There is reason to believe not everyone gets the kind of targeted, personalized care they need to succeed in recovery, as evidenced by the ongoing nature of the crisis. We recommend the creation of a centralized system for treatment providers that ensures fast and reliable referral for the entire spectrum of services. This will lead to lower relapse rates, fewer overdoses from opioids, and will aid in the reintegration of people in recovery.

Individualize Care

A large proportion of people with opioid addiction have other mental health comorbidities. In addition, there is an important mental health component to addiction distinct from physical dependence. The current treatment system on Staten Island focuses primarily on the physical aspects of opioid addiction and doesn't focus enough on the psychological and social dimensions unique to each individual. We heard from people in recovery that they were more likely to use services that treated them as individuals, not as a number or a case. We recommend an individualized care model built on customized health plans to make sure all patient needs are met.

Ensure Persistent Follow-Up

Based on our research and interviews, we found that persistent follow-up is key to helping people struggling with opioid addiction. People in recovery often require multiple stints in rehabilitative or supportive services before becoming sober for an extended period of time. Rarely is the first touchpoint with care systems, medical or otherwise, the complete solution.

Ideally, there would be many touchpoints in the system through which follow-ups could occur, both during and after receiving treatment for problems with addiction. These touchpoints could be official, from law enforcement or medical professionals, or personal, via counselors, family, or friends. However, they must be personalized and supportive to the individual in need.

We recommend a formalized, regimented means of following up with people who are in recovery. Like opioid addiction treatment itself, these follow-ups must be personalized for the individual's needs and goals.

Strengthen Aftercare

When someone is returning home after being in rehabilitative services, often there is a gap left that heroin or other opioids used to fill. For this reason, it is important for people in recovery to be able to fill this gap with easily accessible activities, such as softball leagues, classes, volunteer work, or even perhaps a new job. Comprehensive counseling services that provide emotional support must work in tandem with so called normalizing activities to aid in the reentry process.

Recommendation 3: Develop a targeted campaign aimed at reducing stigma.

We recommend Staten Island invest in a social media campaign to educate communities about opioid addiction, dispel inaccurate conceptions, increase awareness of actions family members can take, and decrease stigma. While there are currently some public health-centric campaigns relating to the opioid crisis, they are not comprehensive and are not targeted enough toward specific populations with the power to foment change. A more targeted effort on Facebook, Twitter, and Instagram will ensure we reach Staten Islanders regularly and via platforms they already use.

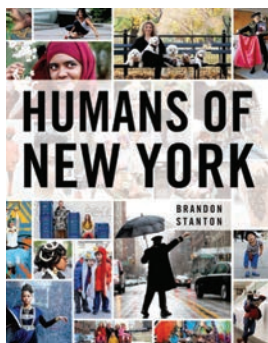
This campaign targets two key groups on Staten Island: people who currently misuse opioids and those in positions to observe and interrupt their addictive behaviors. The social media campaign must therefore speak to these audiences and convey meaningful messages to both.

For opioid users, messaging must include:

- Discussion aimed toward stigma reduction
- Diversity of addiction and who it affects
- What resources are available and how to access them

For people in positions to help (such as parents, friends, teachers, etc.) messaging must include:

- Discussion aimed toward stigma reduction
- Diversity of addiction and who it affects
- Symptoms of opioid addiction and mental illness
- How to react to observed symptoms
- What resources are available and how to access them



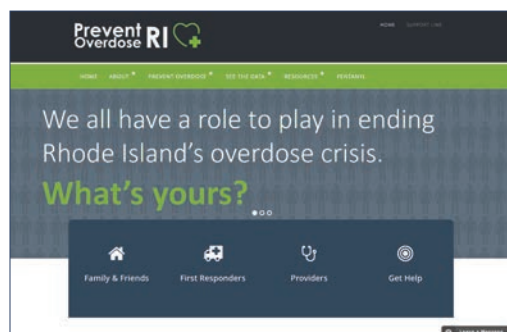
A best-selling book by Brandon Stanton, “Humans of New York” showcases New Yorkers through photos and stories.

To this end, we suggest the following storytelling methods for messaging, and hiring or seeking a pro-bono relationship with a social media-focused advertising firm to aid in outreach and campaign creation:

- *MythBusters*-style messages to dispel misconceptions
- Partner with *Humans of New York*: Promote a Staten Island opioid overdose focus
- Substance Addiction First Aid: Discussing how to address the issue or recognize signs if you know of a family member or friend struggling with addiction

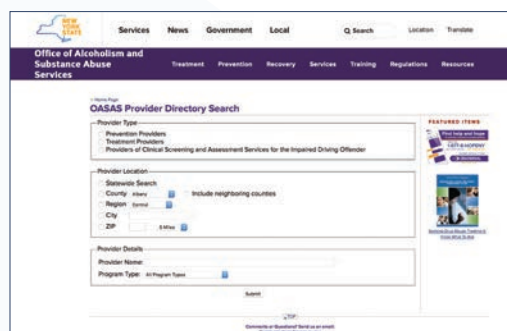
Recommendation 4: Establish a searchable website with comprehensive information about available opioid addiction services.

We recommend the RCDA create and maintain an easy-to-find, easy-to-search website for both Staten Island residents and local providers that contains comprehensive information about where opioid addiction services are available and how to access them. We recommend a searchable, comprehensive listing of all inpatient and outpatient centers, physicians, nonprofit organizations,



and aftercare service organizations. Each listing should include institutional contact information, center hours, accepted insurance plans or financing alternatives, and type of services provided. One possible place to look for direction is Rhode Island, which created a dashboard-style website called “Prevent Overdose RI,” a one-stop-shop for information regarding opioid addiction and treatment.

Via a comprehensive database that incorporates various types of psychosocial and physical care options, the website will streamline existing resources on the island while increasing awareness of the crisis. It will also speak to particularly hard-to-reach populations less likely to seek



assistance. The website should be customized specifically for addressing opioid use on Staten Island and should incorporate information from existing databases, such as OASAS, but should be more user-friendly for addiction support seekers and updated at least monthly. We recommend that a Resource Coordinator at RCDA continuously maintain the website with up-to-date information.

Recommendation 5: Draw on the unique lived experiences of people in recovery.

Often, the people closest to a problem are also closest to the solution. While there are many taskforces and many teams working to alleviate the opioid crisis on Staten Island, people with a history of addiction are often not present during these meaningful policy discussions.

People in recovery have a unique position: They know a way out. It is important to place people in recovery into leadership roles on local boards and taskforces, and to encourage them to volunteer or work as peer advisors to help others become well. Not only will this leverage valuable knowledge held by these individuals, but it will also be a large step toward destigmatizing opioid addiction. Everyone has a role to play.



A mural in Stapleton, Staten Island.

Photo Credit: Myrela Bauman

Future Opportunities for Research

Additional themes that emerged in our research and require further investigation include:

Sources of Information Gathering

While we were able to secure outreach recommendations through community-based groups and secondary research, time constraints prevented us from interviewing a significant number of substance users or family members. Community organizations repeatedly cited discomfort interacting with law enforcement and criminal justice as a deterrent to seeking help. Knowing how community members receive their information would help determine how people learn about the role of the district attorney and law enforcement, the messaging that currently exists on the ground, and reasons behind any misconceptions. Additionally, understanding preferred modes of communication will enable development of targeted outreach campaigns for targeted demographics, while evaluating the effectiveness of current public awareness campaigns.

Gender-Based Treatment Gaps

Our research highlighted that women were also impacted by the crisis, but more time and attention to gender-specific solutions is needed. It would be beneficial to speak with female substance users and treatment organizations with beds for women to identify gaps in outreach or resources for this population.

Opioid Use Among Victims of Emergencies and Natural Disasters

Several interviewees referenced the blight of post-traumatic stress among individuals who were affected by disasters like 9/11 and Hurricane Sandy. Particularly affected were firefighters and police officers who were the frontlines of emergency response. Because Staten Island is a tight-knit community, the physical and economic consequences of these events might have also influenced the well-being and substance use trends of these individuals' families and friends in order to deal with mental stresses. In order to determine this linkage, we recommend additional research with individuals affected, after which policymakers can use the data collected to inform programs that best support this population.

Challenges of Families

Stakeholders commonly identified community members as the “referral sources” to treatment for opioid users. However, families often deny the need for help due to shame and stigma. In order to debunk the challenges to seeking care, we need to speak with family members to better understand the reasons behind delaying care, where the stigma comes from, and the types of resources that would help them engage in treatment-seeking behaviors for their loved ones. Additionally, there may be a link between domestic violence and deaths from opioid overdose. Exploring this connection further would help uncover solutions that may help children, women, and families.

Differentiation Between Desire and Need

All of the people in recovery we spoke with said they had, at some point, been turned away from a detox facility. Although many of the people in recovery we spoke with expressed a desire for more inpatient detox capacity, opioid withdrawal (while incredibly uncomfortable) does not require medical supervision. There may be a misconception that addiction can only be effectively treated via inpatient rehabilitation, but there are other methods of treatment that can be equally effective, depending on the individual’s needs. Further research into the origin for this possible disconnect between perceived versus actual need may help providers better distribute services on the island.

Similarly, some people with opioid addiction may not want addiction services close to their homes due to shame and stigma; they fear being “found out.” To best serve these individuals, a mapping of treatment centers in surrounding areas (Brooklyn or New Jersey, for example) could be a helpful addition to our study. Finding ways to provide discreet care within Staten Island may be key to encouraging people to get help within their communities.

Assessment of Buprenorphine Providers

Although 61 physicians are licensed to prescribe buprenorphine on Staten Island, only a fraction of providers prescribe the drug in practice. Further exploration of the possible barriers physicians face in prescribing buprenorphine is necessary to assess MATs on the island.

Standardized MAT Data

Each facility providing MAT capacity data used different standards for data reporting. The lack of standardized data made the evaluation process difficult and led some of the data to become unusable. Knowing the basis for data standardization would improve capacity data.

Appendices

Appendix A: Outpatient MAT Provider Capacity

Provider	Capacity: MAT slots	Currently in Use MAT slots	Basis	Date collected
Staten Island University Hospital, South	550 - Methadone	515-530 - Methadone	Per day	04/20/2017
Staten Island University Hospital, North	200 - Methadone	200 - Methadone	Per day	04/18/2017
Bridge Back to Life	30 - Suboxone No cap - Vivitrol	15 - Suboxone 10 - Vivitrol	Per week	04/18/2017
Samaritan Daytop Village	30 - Suboxone No cap - Vivitrol	1 - Suboxone 1 - Vivitrol 3 - Methadone maintenance	Per week	04/13/2017
Project Hospitality	No cap	12 - Suboxone 10 - Methadone maintenance	Per week	04/20/2017
Silver Lake Support Services	No cap	20 - Suboxone 10 - Vivitrol 30 - Naltrexone	Currently registered	04/13/2017
Community Health Action of Staten Island (CHASI)	N/A	21 - Suboxone	Currently registered	04/20/2017

Appendix B: List of Outpatient / Inpatient / Behavioral Care Providers for Opioid Addiction (As of April 2017)

Provider	Type	Address
Amethyst House Residential Halfway House	Halfway House	280 Richmond Terrace, Staten Island, NY 10301
Bridge Back to Life	Outpatient MAT / Behavioral care	1688 Victory Blvd #1, Staten Island, NY 10314
Camelot Counseling	Inpatient / Behavioral care	460 Brielle Avenue, Building H, Staten Island, NY 10314
Carl's House	Behavioral Care	585 Veterans Rd W, Staten Island, NY 10309
Community Health Action of Staten Island (CHASI)	Outpatient MAT / Behavioral care	56 Bay Street, 6th Floor Staten Island, NY 10301
Harrison House	Halfway House	313 Broadway, Staten Island, NY 10310
Pills Anonymous Staten Island	Community Organization	3560 Richmond Road, Staten Island, NY 10306
Pills Anonymous Staten Island	Community Organization	5371 Amboy Road, Staten Island, NY 10312
Project Hospitality	Outpatient MAT / Behavioral care	14 Slosson Terrace, Staten Island, NY 10301
Richmond University Medical Center / Silberstein Hospital	Outpatient MAT	355 Bard Ave., Staten Island, NY, 10310
Samaritan Daytop Village	Outpatient MAT / Behavioral care	1915 Forest Ave, Staten Island, NY 10303
Silver Lake Support Services	Outpatient MAT / Behavioral care	201 Forest Avenue, Staten Island, NY 10301

Provider	Type	Address
South Beach Addiction Treatment Center	Inpatient / Behavioral care	777 Seaview Avenue - Building #3, Staten Island, NY 10305
St. Vincent's Services	Behavioral Care	148 Bay Street, 1st Floor, Staten Island, NY 10301
Staten Island Mental Health Society - North Shore	Behavioral Care	444 St. Mark's Place, Staten Island, NY 10301
Staten Island Mental Health Society - West Brighton	Behavioral Care	669 Castleton Avenue, Staten Island, NY 10301
Staten Island Narcotics Anonymous	Community Organization	375 Seguire Ave. 1st Floor, Staten Island, NY 10309
Staten Island University Hospital, South	Outpatient MAT (Methadone) / Inpatient	375 Seguire Avenue, Staten Island, NY 10309
Staten Island University Hospital, North	Outpatient MAT (Methadone)	111 Water St., Staten Island, NY 10304
The Resource Training and Counseling Center - Christopher's Reason	Community Organization	4521 Arthur Kill Road, 3rd Floor, Staten Island, NY 10309
YMCA Counseling Services - North Shore	Outpatient MAT / Behavioral care	285 Vanderbilt Avenue, Staten Island, NY 10304
YMCA Counseling Services - South Shore	Outpatient MAT / Behavioral care	3911 Richmond Avenue, Staten Island, NY 10312

Appendix C: List of Buprenorphine Certified Physicians (As of April 2017)

Name	Address
Adedayo Adedeji	1408 Richmond Road
Ahmed Elsoury	27 New Dorp Lane Second Floor
Ana Mendez	14 Slosson Terrace
Anna Alayeva	75 Vanderbilt Avenue
Anthony Conciatori	774 Castleton Avenue
Aruna Agni	669 Castleton Avenue
Azher Siddiqi	1147 Richmond Road
Barry Gordon	5405 Hylan Boulevard
Benjamin Kolloori	1800 Clove Road
Billy Geris	4335 Hylan Boulevard
Carmen Natali-Agostini	900 South Avenue
Carolina Nisenoff	RUMC Behavioral Health, 355 Bard Avenue
Christopher Perez	361 Edison Street
David Finn	Daytop Village, Inc. 1915 Forest Avenue
David Finn	Staten Island University Hospital 111 Water Street
David Suarez	3733 Richmond Avenue Suite 1A
Dominic Pompa	78 9th Street
Edward Levine	1491 Richmond Road
Elina Drits	376 Seguire Avenue
Felix Lanting	133 Hunter Avenue
Gene Sankin	82 Admiralty Loop
George Tawfik	900 South Avenue
Gregory Karcnik	South Beach Addiction Treatment Center Bldg #1, 2nd Floor, 777 Seaview Avenue
Harshal Kirane	392 Seguire Avenue
Hasan Miraj	South Beach Psychiatric Center 777 Seaview Avenue
Hyacinth Williamson	South Beach ATC Building I 777 Seaview Avenue
Jack D'Angelo	361 Edison Street
Jeffry Tambor	1975 Hylan Boulevard
Jill Tolia	1408 Richmond Road
Joel Idowu	1430 Clove Road
John McCarthy	1776 Richmond Road
Jordan Glaser	1408 Richmond Road
Kanwardeep Aiden	444 Huguenot Avenue, Suite A

Name	Address
Kenneth Pickover	North Shore Office
Kenneth Pickover	124 McClean Avenue
Kevin Weiner	2071 Clove Road
Kyi Ohn	1688 Victory Boulevard
Kyi Ohn	14 Blossom Terrace
Kyi Ohn	1430 Clove Road
Larisa Veksman	59 Lindenwood Road
Lucas Ralston	Silberstein Clinic 427 Forest Avenue
Lucas Ralston	Richmond University Medical Center 355 Bard Avenue
Lucy Kolloori	1800 Clove Road
Luigi Parisi	1491 Richmond Road
Mai Kaga	New Dorp Medical 4247 Richmond Avenue
Manassa Hany	355 Bard Avenue
Margaret Seide	450 Seaview Avenue
Mathew Mani	4247 Richmond Avenue
Michael Carpiniello	93 Willowbrook Road
Miguel Tirado	1776 Richmond Road
Miguel Tirado	305 Seguire Avenue Suite 1
Neil Nepola	217 Rose Avenue
Nisha Lakhi	Richmond University Medical Center 355 Bard Avenue Ave
Nkanga Nkanga	78 Cromwell Avenue
Paul Gazzara	3589 Hylan Boulevard
Regina Di Giovanna	56 Bay Street
Rita Grigiene	305 Seguire Avenue Suite 1
S. Nair	2071 Clove Road Grasmere Medical Pavilion
Sangita Parab	31 New Dorp Lane
Sarup Nariani	South Beach Addiction Treatment Center 777 Seaview Avenue, Bldg 1, First Floor
Stephan Carlson	392 Seguire Avenue
Stephen Maslak	1408 Richmond Road
Sunil Patel	2260 Victory Boulevard
Suzy Bibawy	75 Vanderbilt Avenue
Thomas D'Amato	355 Bard Avenue Unit 6-E
Vincent Calamia	4434 Amboy Road

Appendix D: Interview/Interviewee breakdown by organization type and mode of discussion

Table 1. Interviews Conducted by Type and Number

Interview Type	Number of Interviews
In-Person	21
Phone/Skype	8
TOTAL	29

Table 2. Facility and Interview Breakdown by Organizational Category

Organization Type	Number of Organizations	Number of Interviewees
Service Providers		
Outpatient Treatment	6	13
Inpatient Treatment	1	3
Social Services	3	7
State/Local Oversight Agencies	4	10
Academic Researchers	5	7
Law Enforcement	4	14
Political Officials	3	4
People in Recovery	N/A	5
TOTAL	26	61 (unique)*

*We conducted 29 total interviews with people from 26 organizations. During our interviews, we spoke with 61 unique individuals.

Table 3. Breakdown of Interviewees by Category

Service Providers	Law Enforcement	Political Officials	People in Recovery	Academic Researchers
In-Patient Medical & Counseling Staten Island University Hospital (SIUH)	Edward Delatorre, Chief, New York Police Department	NYC Councilman Joseph Borelli	Anonymous (6 individuals)	Michelle Nolan, MPH <i>Columbia University</i> ; NYC Department of Health & Mental Hygiene
Outpatient Medical & Counseling Bridge Back to Life Camelot Counseling Samaritan Daytop Village Staten Island Mental Health Society Urban Health Center YMCA Counseling Services	Office of Richmond County District Attorney Michael E. McMahon Office of Special Narcotics Prosecutor Bridget G. Brennan RxStat Collaborative	New York State Assemblyman Michael Cusick NYC Councilman Steven Matteo		
Referral & Social Services Carl's House Catholic Charities Catholic Youth Organization Staten Island Partnership for Community Wellness (SIPCW)				Brandon Marshall, Ph.D. <i>Brown University</i> Robert Carlson, Ph.D, <i>Wright State University</i> Raminta Daniulaityte, <i>Wright State University</i> Andrew Kolodny, MD <i>Brandeis University</i>
State and Local Oversight Agencies* Health & Hospitals Staten Island Performing Provider System, Delivery System Reform Incentive Payment Program (DSRIP) Substance Abuse Prevention Intervention Services ThriveNYC Mental Health Service Corps, Department of Health & Mental Hygiene				Helena Hansen <i>New York University</i> Sonia Mendoza, MA <i>Columbia University</i>

*We recognize state and local oversight agencies may not always be categorized as service providers. However, this group did not receive its own interview template to ensure greater consistency in data collection.

Table 4. Interview Details by Date, Mode of Communication, Interviewers, and Number People Interviewed

Organization	Interview Date	Mode of Communication	Interviewers*	Number People Interviewed
Office of Richmond County District Attorney Michael E. McMahon	2/10/17	In-person	RB, EK, PW, MYY	5
Tackling Youth Substance Abuse (TYSA) Meeting, <i>Staten Island Partnership for Community Wellness (SIPCW)</i>	2/17/17	In-person	RB, MYY	7
Office of the Special Narcotics Prosecutor Bridget Brennan	2/21/17	In-person	KKV, EK	2
Urban Health Center	2/21/17	In-person	MB, RB, MYY	1
Health & Hospitals	2/23/17	Phone	RB, KKV	1
HOPE Program, <i>Office of Richmond County District Attorney Michael E. McMahon</i>	2/27/17	In-person	MB, RB, KKV, EK, PW, MYY	2
Michelle Nolan, MPH <i>Columbia University; NYC Department of Health & Mental Hygiene</i>	2/27/17	In-person	MB, RB	1
Brandon Marshall, Ph.D. <i>Brown University</i>	2/27/17	Phone	MB, RB	1
Andrew Kolodny, MD; <i>Institute for Behavioral Health Schneider Institutes for Health Policy, Heller School for Social Policy & Management Brandeis University</i>	2/27/17	Phone	RB, KKV	1
RxStats Collaborative Meeting	2/28/17	In-person	KKV, MYY	10
Substance Abuse Prevention/ Intervention Specialists (SAPIS), <i>New York State Office of Alcoholism and Substance Abuse Specialists</i>	3/9/17	In-person	KKV	1
Office of NYC Councilman Joseph Borelli	3/10/17	In-person	MB, EK	1
Office of NYC Councilman Steven Matteo	3/10/17	In-person	MYY	1
Office of NYS Assemblyman Michael Cusick	3/10/17	In-person	MYY	2
Helena Hansen, <i>New York University</i> & Sonia Mendoza, Ph.D., <i>Columbia University</i>	3/13/17	In-person	PW	2

Organization	Interview Date	Mode of Communication	Interviewers*	Number People Interviewed
ThriveNYC Mental Health Service Corps, <i>New York City Department of Health & Mental Hygiene</i>	3/16/17	In-person	MB, MYY	1
Staten Island Partnership for Community Wellness (SIPCW)	3/17/17	In-person	MYY	1
Chief Edward Delatorre, <i>New York Police Department</i>	3/20/17	Phone	EK, PW	2
Staten Island University Hospital (SIUH)	3/23/17	In-person	KKV, EK	2
YMCA Counseling Services	3/24/17	In-person	RB, EK, MYY	5
Catholic Charities & Carl's House	3/24/17	In-person	MYY	2
Samaritan Daytop Village	3/27/17	In-person	MB, RB	2
Camelot Counseling	3/29/17	In-person	RB, PW	1
Staten Island Partnership for Community Wellness (SIPCW)	4/4/17	Phone	RB	1
Carl's House	4/6/17	In-person	EK	3
Staten Island Mental Health Society	4/7/17	Phone	EK	3
Sonia Mendoza, Ph.D., <i>Columbia University</i>	4/10/17	In-person	MB, RB, KKV, EK, PW, MYY	1
Bridge Back to Life	4/11/17	In-person	KKV, MYY	1
Staten Island Performing Provider System, <i>NYS Delivery System Reform Incentive Payment Program (DSRIP)</i>	4/12/17	Phone	RB, MB	2

* *Interviewer Initials*: MB = Myrela Bauman; RB = Raoul Bhatta; KKV = Kirsten Kierulf-Vieira; EK = Erin Kuller; PW = Patricia Wendt; MYY = Mon Yuck Yu

Appendix E: Educational/Knowledge Campaigns Mentioned During Interviews

Organization	Website	Initiative/Message/Audience
YMCA		Utilize various evidence-based curricula to teach life-skills to make healthy choices. Target Audience: Youth
Substance Abuse Prevention and Intervention Specialists (SAPIS) Program	http://schools.nyc.gov/StudentSupport/NonAcademicSupport/SubstanceAbusePreventionandIntervention.htm	Preventative intervention services for K-12 grades aimed to reduce prevalence of substance abuse among youth. Target Audience: Youth
Teen Intervene	http://www.hazelden.org/web/go/teenintervene	Program to help high school students self-identify a substance disorder and get connected to screenings, brief intervention and referral to treatment. Evidence-based approach (from pediatric practices). Brief interventions usually take place in provider offices. If the case is more complex, the adolescent will be referred to treatment. Target Audience: Youth
Community Health Action of Staten Island (CHASI)	https://chasing.org/	Provides multiple wrap-around social support services including Overdose Emergency Care and Harm Reduction Workshops. Target Audience: Users
Parents360:You Matter	http://pact360.org/programs/parents360	Community workshops to promote open dialogue and educate parents about disposal of prescription drugs, signs of addiction. Target Audience: Parents
Health Information Project (Be Hip)	http://www.behip.org/	Miami based nonprofit that empowers youth to deliver health information to their schools. SIPCW stated in an interview use of BeHip model around Staten Island. Target Audience: Youth

Organization	Website	Initiative/Message/Audience
Catholic Charities Staten Island Heroin Epidemic Archdiocese Response Team (H.E.A.R.T. Initiative)	https://mountloretto.org/catholic-charities-of-staten-island-cyo-launch-si-heart-initiative/	Using Catholic Youth Organization (CYO) coaches and membership to inform and educate Staten Island youth and their families. Target Audience: Youth, Families
Substance Abuse and Mental Health Services Administration (SAMHSA) Physician Waiver Campaigns	https://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management/qualify-for-physician-waiver	Efforts made to inform physicians about Drug Addiction Treatment Act (DATA 2000) qualifications necessary to prescribe buprenorphine. Target Audience: Physicians
SIUH Northwell Narcan Trainings	https://www.northwell.edu/about/news/staten-island-university-hospital-offers-free-training-narcan-kit-combat-drug-overdose	Free Narcan Kit trainings (difficult to find current information).
New York State Office of Alcoholism and Substance Abuse Services (OASAS)	https://www.oasas.ny.gov/prevention/resources.cfm	Evidence-based 10 week curriculum. Target Audience: 4th-5th grade Youth
Bridge Back to Life (BBTL)		Provider Relations conducts community outreach at resource fairs to inform community of BBTL services. Target Audience: providers, community
Too Good For Drugs	http://www.toogoodprograms.org	Evidence-based curriculum administered in some schools, implemented by the NYPD, also helps increase community-police relations. Alternative to the OASAS model. Target Audience: Families, Youth
Other	Various informal campaigns were mentioned, but were difficult to find detailed information on. Some of these include; Bathroom Campaigns (working with retailers to post information on the back of stall doors regarding the danger of mixing substances, using alone etc), PTA workshops (to increase dialogue among families), School-based Health Center initiatives, Online Support Groups (Next Door, St. George Facebook Group etc)	
Statewide Initiatives	Talk2prevent: Youth and Family focused toolkits focused on addiction education https://talk2prevent.ny.gov/ ThriveNYC: NYC initiative to increase citywide mass advertising toward mental health https://thrivenyc.cityofnewyork.us/	

Notes

