New York State

OPIOID POISONING, OVERDOSE AND PREVENTION

2015 Report to the Governor and NYS Legislature

NEW YORK STATE | Department of Health | AIDS Institute

Acknowledgements

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- New York State Department of Health: AIDS Institute, Bureau of Emergency Medical Services and Trauma Systems; Bureau of Occupational Health and Injury Prevention; Bureau of Narcotics Enforcement
- New York State Division of Criminal Justice Services
- New York State Office of Alcoholism and Substance Abuse Services
- Harm Reduction Coalition

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Opioid Related Overdose Annual Report 2015

Introduction

Public Health Law section 3309 requires submission of a report on opioid related overdose.This report provides an overview of opioid-related mortality and morbidity and other consequences of heroin and prescription opioid misuse across the state over the last five years. It also summarizes new and expanded initiatives and collaborative cross-disciplinary efforts to identify, assess, and address those problems.

The report reflects the work of many state and local government agencies,[1] which have collected, shared and examined data to identify where and to whom opioid overdoses are occurring, and to help inform timely, effective public health and public safety policy and practices to reduce the related deaths, disease, and social harms affecting New York's communities.

Death from drug poisoning is a national issue. According to the Centers for Disease Control and Prevention (CDC), drug poisoning is the leading cause of injury-related mortality in the United States and was associated with 47,055 lives lost in 2014. About 61 percent of drug poisoning deaths were attributed to opioids, such as heroin and prescription opioid analgesics in 2014. Heroin-related overdose deaths have tripled across the country from 2011 to 2014[2].

A bedrock of New York State's (NYS) response has been training first responders and other likely witnesses to recognize and respond to overdoses, and providing access to naloxone to reverse opioid overdoses, a practice implemented in 2006 by community harm reduction programs under Public Health Law Section 3309. Demand for overdose prevention trainings has grown substantially over the past two years, and the NYS Department of Health (NYSDOH) has responded by training responders to go out and train others. As of this writing, more than 225 agencies across NYS have registered with NYSDOH as overdose prevention programs, and have trained more than 75,000 overdose responders who have documented more than 1,800 overdose reversals. Building on the community overdose prevention model, NYSDOH has formed strong collaborations with community partners and with state and local government agencies concerned with health, behavioral health, public safety and education to help turn the tide of opioid-related deaths.

The goal is to ensure that those who either witness or are first on the scene of an overdose have appropriate training to keep victims alive until they can receive medical attention. This report reviews newer initiatives as well as developments in longstanding community overdose prevention programs.

These initiatives would not be possible without the legal and regulatory actions that allow for enhanced fatal overdose prevention among a wider population socially and geographically where heroin and prescription opioid fatalities have increased. Appendix A is a timeline of the statutory and regulatory changes.

The rise of heroin and pharmaceutical opioid use has increased the need and demand for treatment across the state. Treatment with opioid agonist medications has long been shown to prevent overdose fatalities and the spread of HIV, Hepatitis viruses and help people live healthy lives. NYSDOH is working collaboratively with the NYS Office of Alcoholism and Substance Abuse Services (OASAS) and medical educational and professional organizations to increase

[1] See Acknowledgements.

[2] Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report, January 1, 2016/ 64(50); 1378-82.

access to evidence-based medical treatment for opioid dependence and addiction, prioritizing the areas of the state where opioid overdose is high and treatment access is low.

NYS has dedicated considerable resources in 2014-15 and 2015-16 to its agencies in response to the rising number of overdose deaths. From 2006 to 2013, NYSDOH had less than $300,000 annually in State funding to provide naloxone to registered opioid overdose prevention programs. In 2014-15, NYSDOH, OASAS and NYS Division of Criminal Justice Services (DCJS) spent more than $3.5 million on naloxone, an amount which will increase in 2015-16.

NYS spends $1.2 billion annually to support the OASAS prevention, treatment, and recovery system, another bedrock in addressing the opioid epidemic. This includes $111 million annually in federal Substance Abuse Prevention and Treatment (SAPT) Block Grant funding.

OASAS also received $ 2 million for the Combat Heroin Campaign. In addition, in September 2014, OASAS was awarded more than $8 million in federal funds to help prevent prescription drug misuse and abuse, heroin use, and heroin/prescription opioid overdose among people ages 12-25. OASAS recently awarded 10 local coalitions an average of $627,000 each from those funds for prevention efforts through September 2019.

This report concludes with a summary of anticipated challenges, as well as plans and opportunities for enhanced early response to, and prevention of, further opioid-related morbidity and mortality.

I. Opioid-Related Overdose in New York State, 2010-2015

Trends in Public Health Surveillance Data in NYS[3]

During the last five years for which data are available on opioid use, misuse, morbidity, and mortality, both heroin and opioid analgesic-related deaths have increased:

- 2,175 drug-related deaths were reported in 2013, 40 percent more than in 2009.
- Heroin was involved in 637 (29 percent) of drug-related deaths in 2013 vs. 242 (16 percent) in 2009.
- Opioid analgesic-related deaths increased 30 percent from 2009 to 2013 (from 735 to 952).
- Naloxone was administered during 11,992 emergency medical services (EMS) calls in 2014[4], a 57 percent increase from the previous year (7,649 in 2013).
- Opioid-related emergency department visits increased 73 percent from 2010 to 2014.
- 75,110 opioid-related inpatient hospital admissions were reported in 2014; an increase of 3 percent from 2010.
- 118,875 (42 percent) of the 281,800 admissions to NYS certified substance abuse treatment programs in 2014 included "any opioid" as the primary, secondary or tertiary drug problem, up 19 percent from 2010 (100,004).

Drug-Related Overdose Deaths per Year and Trends Since 2009[5]

In 2009, there were 1,538 reported deaths from unintentional drug poisonings in NYS. Toxicology tests identified heroin in 242 (16 percent) of these deaths, and opioid analgesics in 735 (48 percent). In 2013, the latest full year for which data are available, the number of reported drug overdose deaths increased to 2,175, a 41 percent increase from 2009. The number of heroin-related deaths increased in 2013 to 637, and opioid analgesics related deaths rose to 952, increases of 163 percent and 30 percent from 2009, respectively.

Heroin

In 2013, an average of two New Yorkers a day died of heroin-related overdoses. More than four times as many men (n=516) died of one of these overdoses compared to women (n=121). Whites died of heroin-related overdoses at a rate of nearly twice that of Blacks (3.95 compared to 2.12), and almost 1.35 times that of Hispanics (2.93).[6]

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[3] Data are not uniformly reported for the same time frames and may not fully capture activities or events for the periods reported.

[4] Pre-hospital services data reflect only EMS calls that were reported electronically to the Bureau of Emergency Medical Services and Trauma Systems. Although the transition to electronic reporting is nearly complete, up to 10 percent of EMS activities are recorded on paper, and not yet reflected in the reported data.

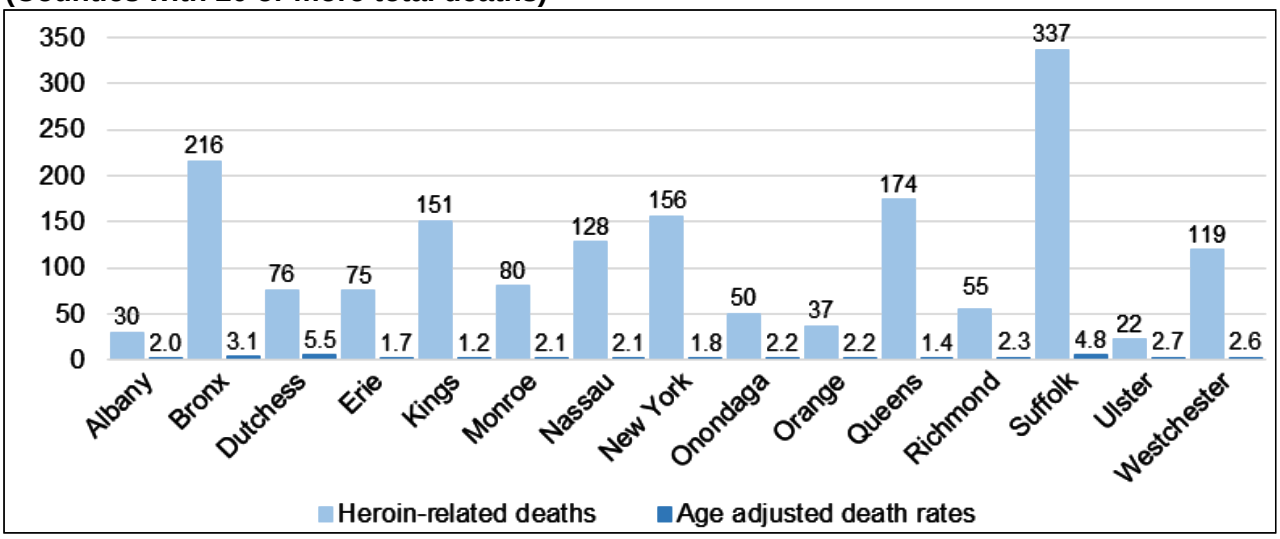
[5] These data represent deaths in which the presence of heroin or opioid analgesics was indicated in toxicology, and they are defined as heroin and opioid-related accidental deaths. Note that there may be overlap between heroin and opioid analgesics reported. Vital Records lists the underlying cause of death as death from drug overdose (X40-44, X60-64, X85, or Y10-14).

[6] The heroin overdose rates were calculated based on White, Black and Hispanic population data for New York per 100,000 provided by the U.S. Census for 2010. Rates are used here because of the differences

The upward trend in heroin-related overdose fatalities among younger New Yorkers is particularly alarming. Half the people who died were under age 35; the numbers rose from 85 deaths in 2009 to 313 in 2013, a 268 percent increase. Of those 313 deaths, 210 were people aged 25-34 and 103 were aged 15-24. The number of deaths increased among people in all age categories from the previous year. (See Appendix B.)

The highest rates of heroin-related overdose fatalities from 2009-2013 were seen in Dutchess, Suffolk and Bronx counties. In 2015, the CDC compiled a list of all counties in the United States with more than 20 reported heroin-related deaths over that time period. Below are the numbers and rates of NYS counties from the CDC's list:

Figure 1: Total Drug Deaths by NYS County Involving Heroin Between 2009 and 2013 (Counties with 20 or more total deaths)



** Rates are per 100,000 population.*

Source: Centers for Disease Control and Prevention, 2015.

Prescription Opioids

The 952 drug-related deaths in 2013 involving prescription opioids (also called "opioid analgesics") represent more than 18 fatalities weekly. The number of New Yorkers aged 45-54, historically the most affected of all age categories, reached a record high of 279 analgesic-associated deaths that year. Nearly twice as many men (612) as women (340) succumbed to these overdoses. Whites died of opioid analgesic-related overdoses at twice the rate of Blacks and Hispanics (6.5 compared to 2.98 and 2.84, respectively).[7] Eight deaths were counted among Asian/Pacific Island New Yorkers in 2013 and none among American Indians/Alaska Natives; however, these racial and ethnic classifications may not reflect the true impact on these populations because of imprecise and incomplete reporting.[8]

in the racial make-up of New York residents. The 2010 census estimated New York's population at 19,378,112; 11,304,247 as White; 2,783,857 as Black; and 3,416,922 as Hispanic.

[7] Opioid analgesic death rates were calculated in the same manner as heroin deaths (see FN 6 above).

[8] See Appendix B.

Opioid-Related Emergency Department Outpatient Visits: Trends Since 2010 and Most Recent Year Available

Hospital emergency departments (EDs) play an important role in the treatment of drug poisoning, and they also see many individuals who are at risk for opioid overdose.

Statewide, there were 37,347 opioid-related outpatient ED visits[9] in 2014, a 73.1 percent increase from 2010.[10] Although these data do not necessarily reflect overdoses, they show the increasing prevalence of opioids in ED visits. Table 1 shows the growth (in frequency and rates) in opioid-related hospital ED visits for New York City (NYC) and for the regions outside NYC for the most recent five years. The steep rise in ED visits outside NYC is clearly seen in Table 1 and Figure 2. Appendix C shows opioid-related ED visits for each county.

Table 1: Outpatient Emergency Department Use Without Hospitalization for a Diagnosis of Heroin, Methadone and/or Opioid-Related Narcotics Use by NYC vs. Rest of New York State, 2010-2014*

Region	2010		2011		2012		2013		2014		2010-2014 % Change
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
New York City	8,409	102.9	10,782	131.9	12,534	153.3	12,916	158.0	14,691	179.7	74.7%
Rest of State	12,554	112.1	14,083	125.7	17,645	157.5	19,271	172.0	21,576	192.6	71.9%
Unknown	843	N/A	1,005	N/A	1,302	N/A	1,723	N/A	1,480	N/A	N/A
NYS Total	21,806	112.5	25,870	133.5	31,481	162.5	33,910	175.0	37,747	194.8	73.1%

** The rates are calculated based on the number of ED visits per 100,000 population. The population is based on U.S. Census Bureau data 2010.*

Source: Statewide Planning and Research Cooperative System (SPARCS)[11], June 2015.
Prepared by the NYSDOH, AIDS Institute, July 2015.

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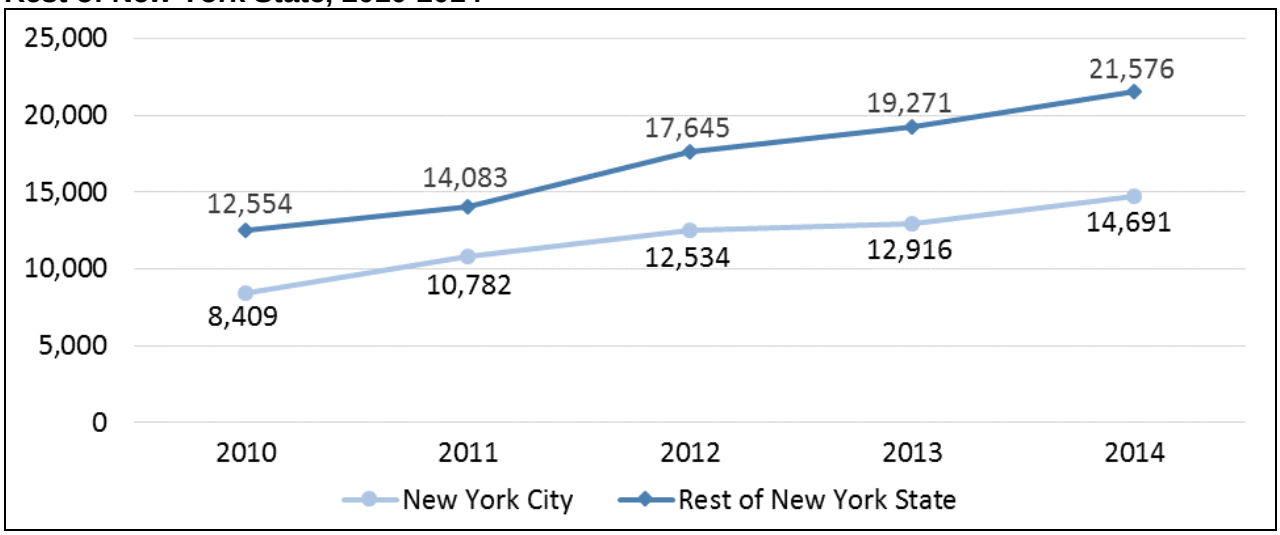
[9] The 37,347 total of opioid-related outpatient emergency department visits for 2014 represents only those who were admitted to the ED, and not subsequently admitted as an inpatient from the ED to the hospital.

[10] . The 2014 data for all ED visits was calculated on July 7, 2015; and opioid-related visits was calculated on June 24, 2015 based on these ICD-9 data codes: 304, 304.7,305.5,E850.0, E850.2, 935.1,935.2,965,965.01,965.02,965.09.

[11] SPARCS is a comprehensive all-payer data reporting system established in 1979 as a result of cooperation between the health care industry and government. SPARCS collects patient-level detail on patient characteristics, diagnoses and treatments, services, and charges for each hospital inpatient stay and outpatient (ambulatory surgery, emergency department, and outpatient services) visit; and each ambulatory surgery and outpatient services visit to a hospital extension clinic and diagnostic and treatment center licensed to provide ambulatory surgery services. The enabling legislation for SPARCS is located under Section 28.16 of the Public Health Law (PHL). SPARCS regulations are under Section 400.18 of Title 10 (Health) of the Official Compilation of Codes, Rules, and Regulations of the State of New York (NYCRR)." https://www.health.ny.gov/statistics/sparcs/

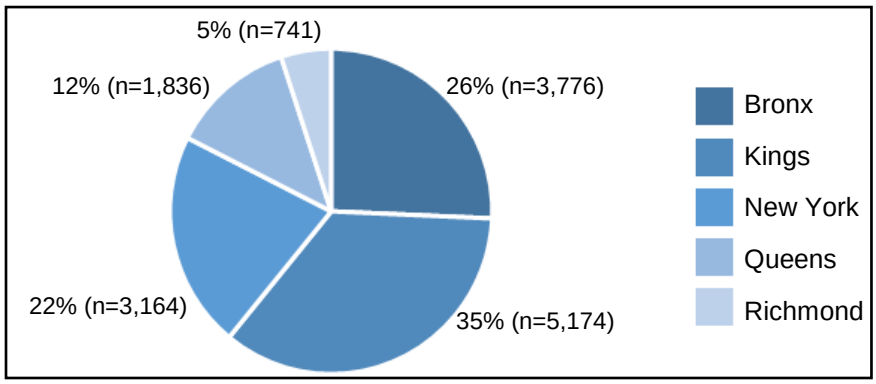
Figure 2: Number of Opioid-Related Outpatient Emergency Department Visits by NYC vs. Rest of New York State, 2010-2014



Source: Statewide Planning and Research Cooperative System (SPARCS) June 2015.
Prepared by NYSDOH, AIDS Institute, July 2015.

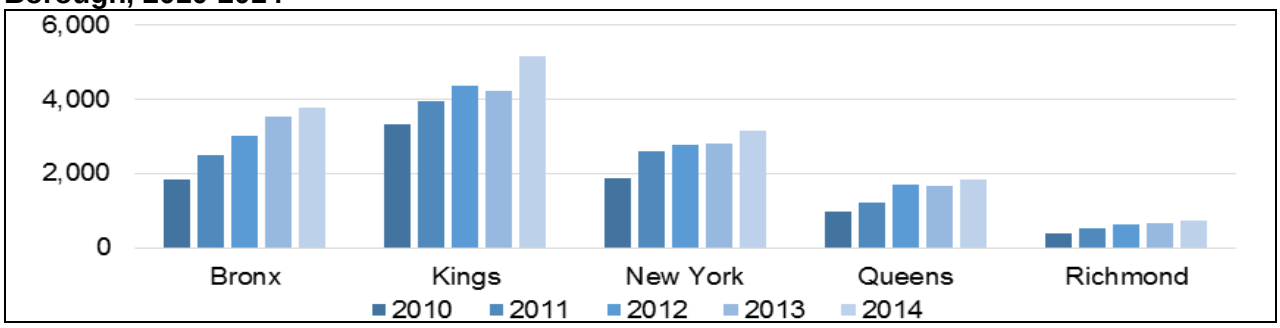
Within NYC, Kings County (Brooklyn) has had the highest number of ED visits for opioid-related problems in 2014 and historically over the last five years, as Figures 3 and 4 below illustrate.

Figure 3: Frequency of Opioid-Related Emergency Department Visits within New York City's Five Boroughs, 2014



Source: SPARCS, Prepared by NYSDOH, AIDS Institute, June 2015.

Figure 4: Frequency of Opioid-Related Outpatient Emergency Department Visits, by NYC Borough, 2010-2014



Source: SPARCS, June 2015. Prepared by NYSDOH, AIDS Institute.

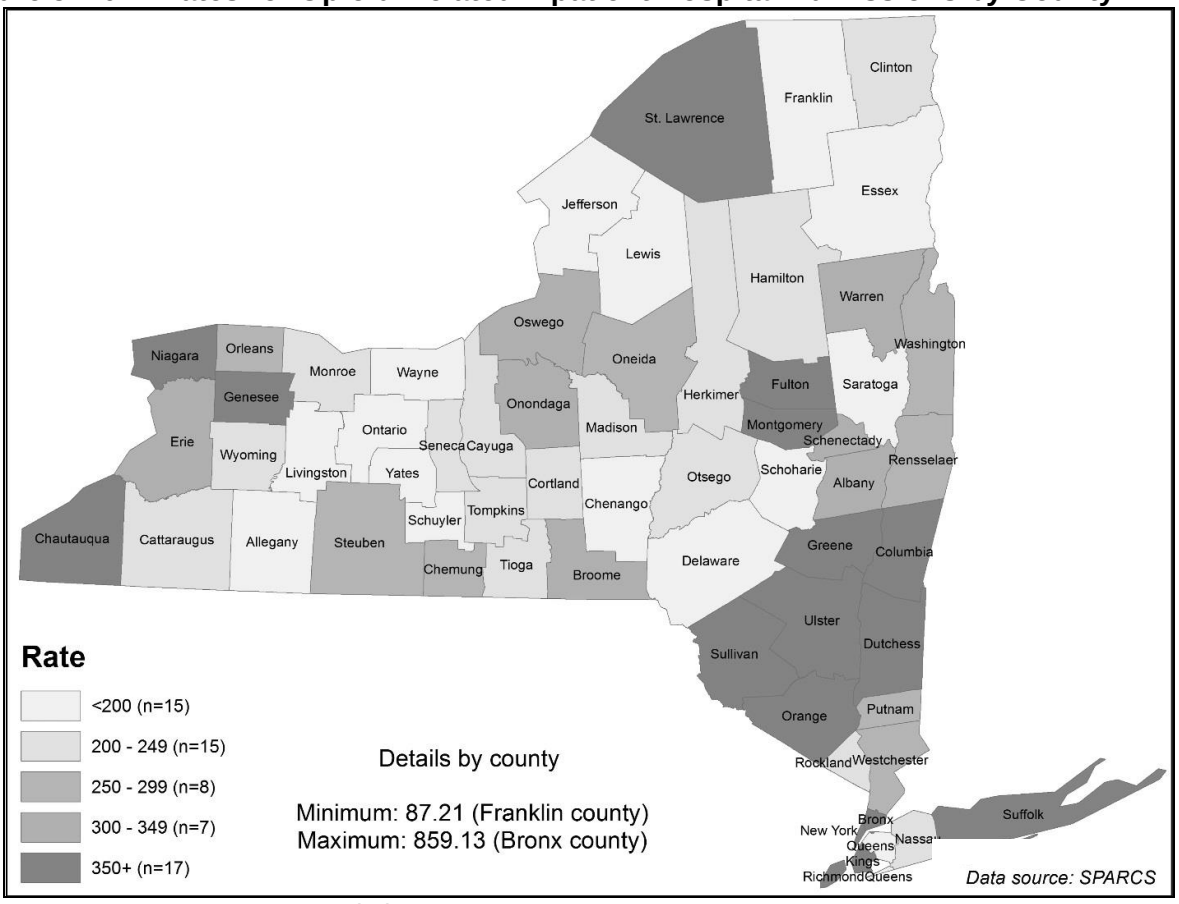
Hospitalizations with Opioid-Related Inpatient Admissions

Using the same SPARCS data codes for ED visits, NYSDOH examined the number of admissions to hospitals statewide with opioid-related diagnoses over the last five years. In 2014, there were 75,110 opioid-related inpatient hospital admissions. Of those, 64 percent (48,170) came via the emergency department. Adding those admissions to the outpatient-only ED visits (37,747), the total opioid-related ED visits to NYS emergency rooms in 2014 was 85,917.

The 75,110 opioid-related inpatient hospital admissions are a 3.4 percent increase from 2010, and nearly unchanged from the year before. Nearly 60 percent of these admissions were male (47,149).

Nine counties had rates of opioid-related hospital admissions higher than the state's average of 387.6 per 100,000 population. (See Appendix D for the numbers and rates for all counties.) Bronx County had both the highest number of opioid-related admissions (11,900) and the highest rate, 585.8. Among larger counties (population greater than 100,000), St. Lawrence had the highest rate (and the second-highest rate of all counties). Among smaller counties, Greene County had the highest rate (and the fourth highest rate of all counties). Conversely, for the first time since 2010, the numbers of opioid-related hospital admissions went down in 28 counties.[12]

Figure 5: 2014 Rates* of Opioid-Related Inpatient Hospital Admissions by County



** Rates are per 100,000 population.*

Source: SPARCS. Prepared by NYSDOH AIDS Institute, June 2015.

[12] SPARCS June 2015 report on frequency and rates of opioid-related hospital admissions by county. Attached in Appendix D, Tables D1-A, B.

II. Responses

Naloxone is made available for registered programs throughout NYS at no cost. NYSDOH provides naloxone to all requesting programs outside NYC. Within NYC, NYSDOH provides naloxone for intramuscular administration to all requesting programs, as well as intranasal naloxone to drug treatment providers. The New York City Department of Health and Mental Hygiene (NYCDOHMH) provides intranasal naloxone to registered programs within NYC that are not drug treatment programs.

Expansion of the NYSDOH Opioid Overdose Prevention Program

NYS is a leader in the implementation of public health programming to prevent death from opioid overdoses. Its multi-pronged approach focuses on building overdose response capacity within communities throughout the State. Complementing the longstanding efforts by Emergency Medical Services agencies throughout NYS, this community capacity comprises trained responders, including opioid-dependent individuals, their families and friends, staff of agencies who work with people who use drugs, law enforcement personnel, firefighters, drug treatment providers, prison guards, prisoners about to be released and their family members, and others.

More than 83,000 people have been trained as overdose prevention responders through registered programs in NY.

The core of this program is for community "laypersons" to be trained by organizations registered with NYSDOH to recognize and respond to opioid overdoses. These individuals are known as trained overdose responders.[13]

Under regulation, these entities may maintain regulated opioid overdose prevention programs:

- Health care facilities, such as hospitals and diagnostic and treatment clinics that are regulated by NYSDOH under Public Health Law
- Individual medical practitioners—including physicians, nurse practitioners and physician assistants—as long as they are legally authorized in NYS to prescribe medication
- Drug treatment programs that are licensed under New York's Mental Hygiene Law
- Community-based organizations incorporated under the Not-for-Profit Corporation Law
- Local and state government agencies
- Public safety agencies
- Institutions of higher education, approved by the Regents of the University of the State of New York, which provide a course of study leading to a post-secondary degree or diploma

[13] The following definition appears in the regulations: "Trained overdose responder means any individual not otherwise permitted by law to administer an opioid antagonist, who is either:
(i) an opioid antagonist recipient as defined in PHL Section 3309 who has successfully completed an opioid overdose prevention training curriculum offered by an authorized opioid overdose prevention program and has been authorized by a registered provider to possess the opioid antagonist;
(ii) a public safety officer who has completed a curriculum approved by the Division of Criminal Justice Services for purposes of intervening in opioid overdoses prior to the arrival of emergency medical services; or
(iii) a firefighter who has completed a comparable curriculum approved by the department."

- Business, trade, technical and occupational schools approved by the Regents of the University of the State of New York or by a nationally-recognized accrediting agency or association accepted by the Regents
- Pharmacies registered under the Education Law

NYSDOH's community overdose prevention and naloxone distribution program began in 2006. As of December 31, 2015, 270 programs have registered and are active. The registered programs include the 12 Addiction Treatment Centers operated by OASAS.

Table 2: Overdose Responders Trained in 2015

Time Frame	Law Enforcement[14]	Firefighters	All Others	All Responders
1st Quarter 2015	4,071	240	5,896	10,207
2nd Quarter 2015	4,469	834	9,531	14,834
3rd Quarter 2015	670	78	7,903	8,651
4th Quarter 2015	1,035	323	11,258	12,616
Total for 2015	**10,245**	**1,475**	**36,753**	**48,473**

Source: NYSDOH, AIDS Institute, March 2016.

The number of registered community programs is growing dramatically. For example, just 86 programs were approved between 2006 (when the program started) and 2013. In contrast, 102 new programs were approved during 2014 alone, with 70 more were added in 2015.

Table 3: Summary of Naloxone Administration Reports through December 2015*

Program Type	Program Inception	Prior to 2013	2013	2014	2015	Total Since Inception
Community Program	2006	709	177	310	504	**1,700**
Law Enforcement	2014	NA	NA	137	963	**1,100**
Firefighters	2015	NA	NA	1	141	**142**
Total		**709**	**177**	**448**	**1,608**	**2,942**

* *Reports of naloxone administrations are current as of December 2015 for the Community Program and the for public safety (law enforcement and firefighters) programs. They do not include EMS naloxone administrations.*

Source: NYSDOH, AIDS Institute, December 2015.

As of the end of December 2015, 1,700 naloxone administrations had been reported by community programs, resulting in 1,636 overdose reversals (96 percent). Due to data reporting challenges, these 1,636 reports are thought to be a fraction of the actual number of overdose administrations by community programs. Each reversal may be considered a life saved. Nearly 310 were reported in 2014, and 504 in 2015, respectively.[15]

Community programs in 45 counties reported at least one administration of naloxone, led by Erie (296), then Manhattan (279), and the Bronx (248). Most naloxone administrations took place in a

[14] The count of trained law enforcement officers includes those officers who have received training under NYSDOH training. It does not include NYPD and those trained under the Attorney General's Office. They have separate reporting systems.

[15] The figures do not include administrations of naloxone made by public safety personnel nor by EMS (see Table 2). NYSDOH AIDS Institute, 8/4/15.3

private residence (888), followed by on the street (303). Most of those receiving naloxone were male (69 percent), White (56 percent) and under age 45 (71 percent), with those between the ages of 25-34 (32 percent) representing the greatest number of overdosed individuals. In 76 percent of the reports, the person receiving naloxone was reported to have injected heroin.[16]

Law Enforcement

> *"Patient was found unconscious in back seat of vehicle of an apparent opiate overdose. Officer administered 2mg of Narcan to the aided in which she began to start breathing and regain consciousness."*
> *- Suffolk County Police Department*

Law enforcement agencies from 56 counties have submitted reports of naloxone administrations to NYSDOH as of December 31, 2015. The greatest number came from Suffolk County (234), followed by Erie County (231). As 2015 ended, 770 trained law enforcement responders reported that 958 individuals (87.3 percent) to whom they had administered naloxone responded to it. Fifty-two of them (4.7) did not live. Similar to the community reports, heroin was reported to be involved in 75.8 percent of the instances when naloxone was administered, and police also reported that those between the ages of 25-34 were the largest group to whom they administered naloxone (42.4 percent).[17]

Law enforcement officers who patrol community streets can help prevent opioid overdose fatalities. For example, under the State's Basic Life Support Service, some Suffolk County police officers were trained as Emergency Medical Technicians (EMTs), and began reporting overdose reversals made while on patrol. Their use of naloxone helped catalyze statewide opioid overdose training tailored to law enforcement officers, using intranasal naloxone administration. With collaboration by NYSDOH, DCJS, OASAS, the Harm Reduction Coalition, Albany Medical Center and other local partners, the first law enforcement training was held in April 2014. As of December 2015, close to 8,000 law enforcement personnel had been trained (N=7,873). Each trained officer was given a naloxone kit free of charge.

Addressing opioid misuse and overdose fatalities has become a national priority. Staff of the Office of National Drug Control Policy (ONDCP) inquired about using New York's police training as a model for other states. ONDCP Director Michael Botticelli attended a training session in Queens in October 2014. The Department of Justice has included DCJS's resources in the Bureau of Justice Assistance's online toolkit to educate police officers about naloxone, how other law enforcement officers are using it, and how they can develop their own overdose prevention programs.

Pre-Hospital Services

Emergency Medical Services (EMS) Calls: Advanced Life Support and Basic Life Support

NYS has an expanding, but not yet complete, system for the electronic submission of patient care reports for pre-hospital service calls. In 2013, 7,649 of these reports included administration of

[16] The metrics used to capture program activities have improved significantly in the past year. Under revisions to the regulations in 10 NYCRR 80.138 instituted in the fourth quarter of 2014, all registered opioid overdose prevention programs are required to report quarterly to NYSDOH on the number of newly trained overdose responders and the number of doses of naloxone furnished to them.

[17] See Law Enforcement Reports in Appendix F.

naloxone. In 2014, this number rose to 11,992, a 57 percent increase. Preliminary data for 2015 indicate a continuing trend.

Intranasal Naloxone for Basic Life Support EMS Agencies

Although naloxone has been used for decades by Advanced Life Support EMS agencies to reverse opioid overdoses, its use in NYS's Basic Life Support (BLS) agencies is recent. Many areas of NYS rely on BLS agencies to provide emergency medical response through their Basic Emergency Medical Technicians (EMT-Bs) and their Certified First Responders (CFRs). Equipping them with intranasal naloxone could expand significantly the reach of this life-saving medicine into communities where it is needed.

In October 2013, the NYS Emergency Medical Advisory Committee (SEMAC) recommended expansion of the permissible scope of practice of EMT-Bs and CFRs who are part of a BLS agency to include intranasal naloxone administration.[18]

Statewide, 716 advanced life support agencies and 379 basic life support agencies are currently equipped with naloxone.

The SEMAC recommendation and NYSDOH guidelines are the outgrowth of a demonstration project led by the Regional Emergency Medical Organization in the Capital District. This demonstration project, conducted in a handful of EMS regions across the State from April 2012-December 2013, included development of web-based training and accompanying materials, as well as hands-on trainings.[19]

Outcomes from the 20-month demonstration project include:[20]

- 2,035 EMT-Bs were trained.
- 223 opioid overdose reversals were reported by trained responders.
- 10 percent of contacted reversals entered rehabilitation programs.
- 75 percent of the overdosed individuals were male.
- 72 percent were under 35 years old.
- Heroin was identified as the source of the overdose in 66 percent of the calls; an unknown opioid in 16 percent; and oxycodone/hydrocodone in 6 percent.
- No adverse events were reported. There were instances of anger and agitation after successful naloxone administration, consistent with overdose reversal, but no reported assaults or injuries to crew.
- EMT-Bs readily accepted naloxone into their life-saving arsenal.[21]

In the wake of the demonstration program and the issuance of NYSDOH guidelines for statewide implementation, another 8,469 responders viewed the online training video, bringing the number of trained EMT-Bs and CFRs to 10,504.

To date, 379 BLS agencies are using intranasal naloxone.

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18 Policy Statement 13-10 issued on December 10, 2013.

19 See Appendix G.

20 Source: Albany Medical College, University of Rochester, NYSDOH AIDS Institute, and NYSDOH Bureau of Emergency Medical Services and Trauma Systems. See Appendix G "Distributive Education can be used to Teach Basic EMTs to Treat Opioid Overdose with Intranasal Naloxone." 2015.

21 NYS DOH Bureau of Emergency Medical Services and Trauma Systems, June 2015.

NYSDOH continues to work with the Regional EMS Councils to coordinate the reporting of naloxone administrations on EMS calls.

Firefighters

In a newer initiative, and with support from OASAS, NYSDOH has been working with regional EMS Councils to help roll out and coordinate trainings for non-EMS fire departments. NYSDOH and the Office of Fire Prevention and Control (OFPC) within the Division of Homeland Security and Emergency Services (DHSES) have approved a training curriculum, with state-certified fire instructors providing the trainings.

In June 2015, NYSDOH, DHSES and OASAS held an inaugural training for 30 firefighters at the West Albany Fire Department. The event received significant media coverage: The Associated Press ran a national story, and the news was also broadcast on local television. Additional trainings occurred throughout the year. As of June 2015, 12 regional EMS program agencies have registered as opioid overdose programs to train their local fire departments.

"… It is critical that non-EMS fire departments and all emergency responders receive this training, which is particularly useful when firefighters are dispatched to overdose situations and arrive prior to EMS. One preventable overdose is one too many, and I encourage departments across the state to sign up for this potentially life-saving training."
- DHSES Commissioner John P. Melville, June 16, 2015.

Substance Use Disorder Treatment Trends for Opioid Dependence

NYS's treatment system for substance use disorders consists of crisis services and non-crisis treatment services. Crisis services include hospital-based detoxification and medically monitored or supervised services in free-standing or hospital settings. Non-crisis treatment services include opioid (methadone, long acting injectable naltrexone and buprenorphine) treatment programs, other outpatient treatment, inpatient rehabilitation and residential programs. Lengths of stay in these settings vary. These programs serve an average of 97,000 individuals on any given day. In 2013, OASAS approved the development of new 25-bed residential facilities to serve young people ages 18-24 on Long Island and in Western New York. Both are expected to open in 2017. A third 24-bed facility opened in September 2014 in Staten Island. Finally, OASAS is expected to award 50 new residential treatment beds to the Southern Tier and Western New York in the first half of 2016.

OASAS reported 281,800 admissions to NYS-certified substance abuse treatment programs in 2014, of which 118,875 (42 percent) included "any opioid" as the primary, secondary or tertiary drug problem.[22] Opioid admissions increased by 19 percent from 2010-2014. Inpatient treatment programs experienced the largest increase; 27 percent more than in 2010. Crisis treatment programs had the most opioid admissions in 2014 (42,398), an increase of 16 percent over 2010.[23]

The biggest group of NYS residents admitted to treatment programs with a primary substance abuse of heroin or other opioids were between the ages of 20-29 in 2014, comprising 39 percent (37,668 of the total 95,739), which was an increase of 49 percent in that age group from 2010.

[22] "Any opioid admission" means an admission to a treatment program where the primary, secondary or tertiary substance of abuse was heroin or a prescription opioid. All OASAS admissions data in this report refers to NYS residents.

[23] See Table H-2 in Appendix H.

Overall, New Yorkers under age 40 made up 64 percent of the opioid treatment admissions, with approximately 45 percent from upstate, 40 percent from NYC and 14 percent from Long Island.

Heroin was reported as the primary drug in 81 percent of the opioid treatment admissions in 2014, an increase of 39 percent over 2010. Nearly two-thirds of these patients reported daily use of heroin, up from 52 percent from 2010.

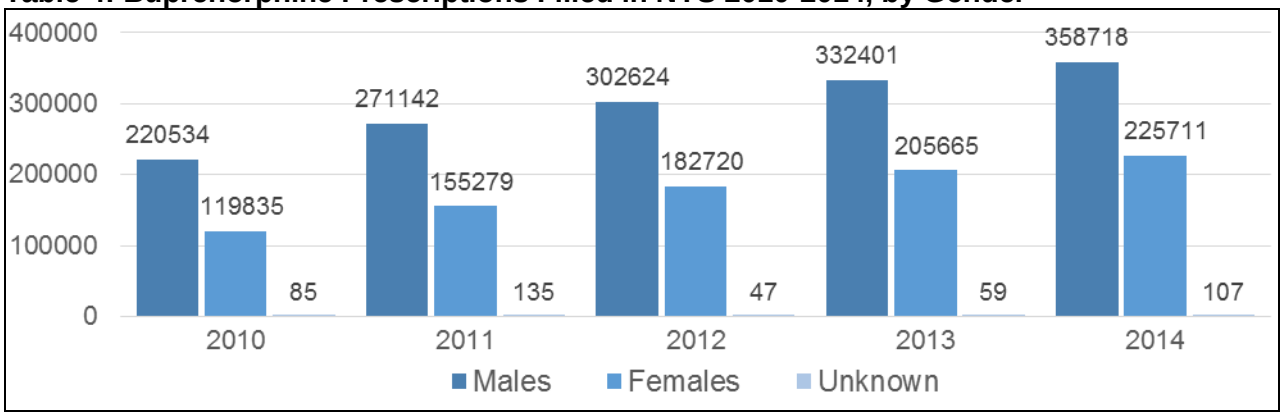
Prescription opioids were reported as the primary drug in 4 percent fewer treatment admissions in 2014 than in 2010 (18,092 compared to 18,767), and the number reporting daily use decreased as well, by 13.6 percent.[24]

Fifty-two percent more people reported daily use of heroin at treatment admission in 2014 than in 2010.

In addition to OASAS-certified programs, physicians who take specialized training and receive federal certification ("waiver") may prescribe buprenorphine to their patients in general practice settings to treat opioid dependence and addiction. This has the potential to expand access to treatment, while addressing demographic and geographic changes in opioid use and misuse. In NYS, 91 opioid treatment programs have the federal waiver to prescribe buprenorphine. [25] In 2014, a total of 14,000 people in OASAS-certified treatment programs received buprenorphine to treat their opioid addiction.[26]

The number of buprenorphine prescriptions filled in NYS increased by 58 percent from 2010 to 2014, as shown in Table 4. Historically, men have filled more prescriptions than women, but women have been making up an increasingly larger percentage.

Table 4: Buprenorphine Prescriptions Filled in NYS 2010-2014, by Gender*



Source: NYSDOH Bureau of Narcotics Enforcement, July 2015.

*Prescription data includes buprenorphine dispensed for the treatment of both pain and dependence/addiction.

Consistent with the federal government's emphasis on early identification of substance use disorders and expanded treatment in non-specialty health care settings, strategies are being developed to further integrate addiction treatment into primary care, educate more clinicians and caregivers about drug use and treatment, and coordinate treatment with other medical practices,

[24] NYS OASAS Data Warehouse, Client Data System, extract of 6/7/2015. See Appendix H.

[25] OASAS, August 2015. All Medical Directors in OASAS' treatment system are required by NYS regulation to be certified to prescribe buprenorphine

[26] OASAS, February 2016. In 2014, a total of 115 patients received buprenorphine in an opioid treatment program (commonly known as a methadone treatment program), and 13,885 were prescribed buprenorphine in other OASAS-certified treatment programs.

including but not limited to family medicine, infectious disease, pain and palliative care, orthopedics and emergency medicine to help increase access to treatment and save lives.

OASAS is also expanding the use of long-acting naltrexone, an opioid antagonist given as a monthly injection to block the effects of heroin and other opioids.

Prescription Drug Reform

Millions of prescriptions for opioid analgesics are written in NYS each year. Some are diverted, misused, or abused, and result in addiction, accidental overdose deaths, and other social costs. In 2012, Governor Cuomo signed the Prescription Drug Reform Act to help stem the rising death toll and social costs. The act updated the Prescription Monitoring Program (PMP) to mandate its use, and make it more current and user-friendly. The law also changed the scheduling of certain controlled substances to enable enhanced monitoring, public and professional education and outreach, and safe disposal of these drugs. The PMP Registry, also known as I-STOP, went into effect in August 2013, pursuant to Public Health Law Section 3343-a.

The Prescription Monitoring Program Registry

The NYSDOH Bureau of Narcotic Enforcement (BNE) Prescription Monitoring Program collects and analyzes dispensed controlled substance data from pharmacies and dispensers. The data, consisting of patient, prescriber, pharmacy and controlled substance prescription information, become the basis for the information available to practitioners and pharmacists through the online PMP. Practitioners and pharmacists are provided a patient's current controlled substance prescription information to better evaluate drug therapy and to inform a practitioner of other controlled substance use. This data also identify potential sources of prescription drug diversion or abuse, including prescription fraud, "doctor-shopping" or multiple-provider episodes, and improper prescribing and dispensing.

The number of "doctor-shoppers" has dropped by 82% from fourth quarter 2012 to fourth quarter 2014.

In February 2010, BNE implemented a PMP that provided secure online access for practitioners to their patients' recent controlled substance prescription histories. From February 2010 to June 2013, 5,087 practitioners (of 100,000 statewide) conducted 465,639 searches.

Before I-STOP, pharmacies and dispensers submitted data monthly. A key change in the 2012 law required "real time" submission of dispensed controlled substance data, authorized PMP access for pharmacists, updated the 2010 PMP system and mandated its use by any practitioner writing prescriptions for a Schedule II, III or IV controlled substance, with limited exceptions. As a result, controlled substance data is provided to the PMP within 24 hours of dispensing.

Results

Since I-STOP's implementation in August 2013, through September 2015, more than 34 million PMP searches were conducted by more than 96,000 searchers on more than 12 million patients. Further, the number of "doctor-shoppers," defined as patients who present to five or more prescribers and five or more pharmacies receiving a controlled substance within a three-month period, had dropped by 75 percent by the end of 2013.[27] That trend has continued with a reported

[27] CDC Vital Signs report, July 2014. Accessed at http://www.cdc.gov/vitalsigns/opioid-prescribing/index.html

further drop from fourth quarter 2012 to fourth quarter 2014 of 82 percent.[28] The NYS PMP has become a model for other states.

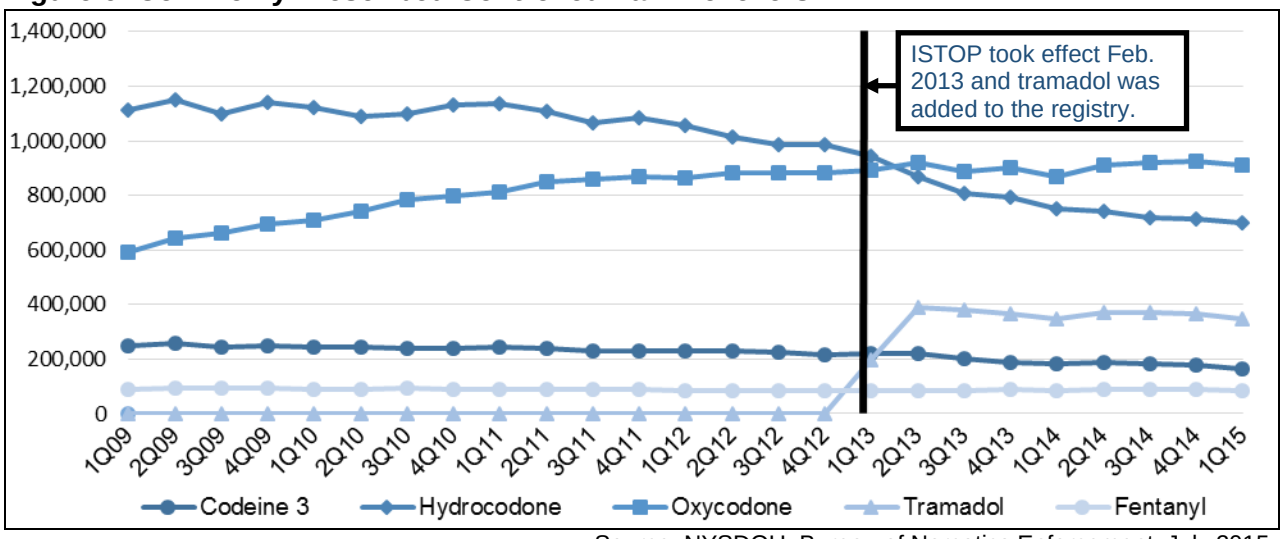
Changes to the Controlled Substances Schedules

Controlled substances, including opioid analgesics, are scheduled based on whether the drug has a currently accepted medical use, its relative abuse potential, and its likelihood of causing dependence.

Before I-STOP, one of the most utilized prescription opioid analgesics, hydrocodone, was scheduled in NYS and federally as a Schedule III controlled substance. Five years ago, hydrocodone prescriptions comprised nearly 50 percent of the five most commonly prescribed controlled analgesics in NYS. When hydrocodone was up-scheduled to a Schedule II controlled substance in February 2013, all strengths, formulations and combination products of hydrocodone became subject to stricter refill and phone-in prescription rules, requiring greater physician oversight of patients' hydrocodone prescriptions, as well as providing further opportunities for physicians to identify and treat their patients' substance misuse/abuse and addictions. At the end of 2014, hydrocodone prescriptions dropped to 32 percent of the five most commonly prescribed controlled analgesics.[29]

The I-STOP legislation also categorized tramadol, a previously unscheduled opioid pain reliever, to Schedule IV. In 2014, tramadol prescriptions were 16 percent of the five most commonly prescribed controlled analgesics 13 percent of the total opioid prescriptions (10,909,602).[30]

Figure 6: Commonly Prescribed Controlled Pain Relievers



Source: NYSDOH, Bureau of Narcotics Enforcement, July 2015.

Overall, the number of prescribed opioid analgesics remained essentially the same from 2010-2014 (10,805,644 and 10,909,602 respectively), bearing in mind that the 2014 data includes mandatory reporting of tramadol as of February 2013. Oxycodone, the second most frequently

[28] NYSDOH Bureau of Narcotics Enforcement, September 2015.

[29] In 2014, the five most commonly prescribed opioid analgesics were hydrocodone, oxycodone, codeine3, propoxyphene, and codeine5, NYSDOH Bureau of Narcotics Enforcement, July 2015.

[30] NYSDOH Bureau of Narcotics Enforcement, July 2015.

prescribed analgesic in 2010, rose 20 percent in 2014, to become the most prescribed (40 percent) opioid analgesic in NYS. BNE continues to monitor this trend.

PMP's 2014 data also indicates that 3,346,545 individuals received opioid analgesic prescriptions. Women over 45 years of age received the most of any group, accounting for 39 percent of all opioid prescriptions. In relation to the rest of the country, New York was among the lowest 10 percent of states in the rate of these prescriptions, according to a 2012 national audit.[31]

[31] CDC Vital Signs, July 2014 data from National Prescription Audit 2012. Accessed at http://www.cdc.gov/vitalsigns/opioid-prescribing/infographic.html#map

Table 5: Opioid Analgesic Prescriptions Dispensed to Patients in 2014 by Age and Gender

Gender	Under 20 years	20-34 years	35-44 years	45-64 years	Over 65 years	Total
Male	191,302	720,460	669,734	2,233,473	948,190	**4,793,159**
Female	185,842	887,970	834,247	2,550,277	1,655,596	**6,113,932**
Unknown	937	351	306	569	348	**2,511**
Total	**378,081**	**1,608,781**	**1,504,287**	**4,784,319**	**2,604,134**	**10,909,602**

Source: NYSDOH, Bureau of Narcotics Enforcement, July 7, 2015.

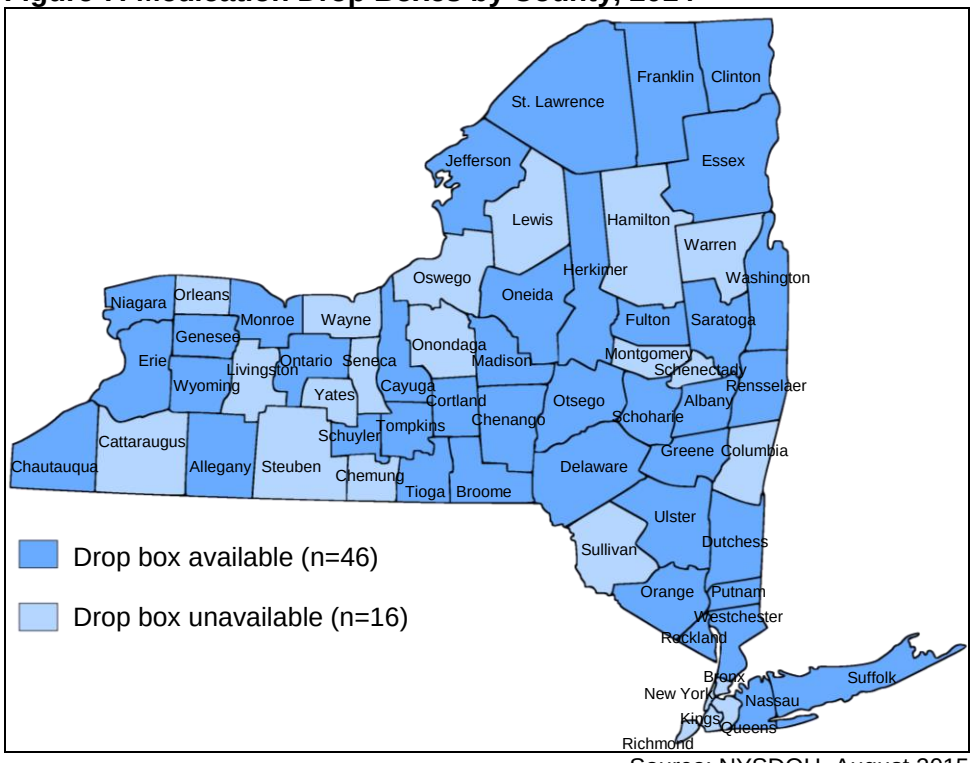
Outreach and Education

Educational materials on prescription drug abuse and misuse are available on the BNE and OASAS webpages, and continue to be distributed.[32] Since 2012, more than 200 presentations (either live or webinars) were given to practitioners and pharmacists statewide and to others interested in addressing overdose deaths and other problems related to opioid abuse/misuse in NYS and nationwide.

Safe Disposal of Unused, Unwanted or Expired Controlled Substances

Through BNE, NYSDOH administers a Medication Drop Box program to help the public safely and securely dispose of unused, unwanted or expired controlled substances and other medications. BNE's webpage has an interactive map detailing drop box locations.[33] In addition, BNE works with the U.S. Drug Enforcement Administration's (DEA) drug takeback events to allow nursing homes and other designated institutions to dispose of their medications safely and securely. NYSDOH is developing state regulations to allow additional disposal options for controlled substances in accordance with DEA rules.

Figure 7: Medication Drop Boxes by County, 2014



Source: NYSDOH, August 2015.

[32] See Appendix I, online resources.
[33] Ibid.

III. Key Legislative Changes Addressing Legal Barriers to Scaling Up Opioid Overdose Prevention with Naloxone in New York State

NYS was among the earliest states to address the growth in opioid overdose deaths by removing legal obstacles to emergency medical care and timely administration of naloxone to reverse the effects of opioid overdose by people witnessing or responding to them.

Historically, State laws and standards for acceptable professional practice regarding the issuance of prescriptions, the dispensing of medication, and engaging in a medical intervention have been similar to those of other jurisdictions: prescriptions are issued and drugs are dispensed for a patient's personal use. Medication is administered by a licensed professional authorized to do so, or by someone otherwise permitted under law. These practices and standards, while generally appropriate and beneficial to the public's health, had been a barrier to legally placing naloxone in the hands of witnesses to an overdose who were not medical professionals or EMS personnel. That barrier was lifted with the enactment of Chapter 413 of the Laws of 2005, which enacted Public Health Law Section 3309, effective April 2006. Further law amendments improved the ability to extend the reach of opioid overdose prevention with naloxone. Briefly, here are two important reforms:

The law has been a significant factor in the progress for public health.

911 "Good Samaritan" Law

Notwithstanding this very broad liability protection, many individuals who might otherwise intervene in opioid overdoses, even just by calling 911, did not act because of concern about possible criminal charges. The "911 Good Samaritan Law" went into effect in September 2011 and provides legal protection against criminal charges and prosecution for possession of controlled substances and possession of marijuana and drug paraphernalia to the persons seeking assistance in good faith, as well as to the person who has overdosed. The law does not cover class A-1 drug felonies, as well as sale or intent to sell controlled substances. Probation and parole violations are also not addressed in the law.

Non-Patient Specific Prescribing ("Standing Orders")

Public Health Law Section 3309 was amended in 2014 to permit non-patient specific prescribing of naloxone, extended liability protection to organizations registered as opioid overdose prevention programs, and authorized pharmacy dispensing of naloxone.[34]

The Role of Syringe Exchange Programs in Preventing Overdose Deaths and Related Harm

Community-based harm reduction services have led the public health response to morbidity and mortality related to injection drug use. Syringe exchange programs (SEPs) were the first and have been the largest group of community programs to train people in the community to recognize overdose risks and respond when they occur.

SEPs provide new, sterile syringes free of charge and a wide array of directly provided, or referred health care, behavioral health and supportive services. Within SEPs, Peer Delivered Syringe Exchange Services (PDSE) has been a highly successful model of disease and overdose prevention. Through PDSE, SEPs are able to reach the most marginalized drug users and those who would otherwise not seek health or social services. In addition to providing the syringes, peers train people in overdose prevention and naloxone administration, and are trusted sources for referrals to needed services. NYSDOH supports PDSE expansion, and in 2014 started a

[34] See Appendix A for details on these laws and a timeline of statutory and regulatory actions.

Young IDU SEP Initiative in 18 SEPs, addressing the increase in heroin use by young people across the state.

There are 24 SEPs in NYS. Since 1992, they have served more than 184,750 people and distributed more than 62.5 million syringes.[35]

Expanded Syringe Access and Safe Disposal Programs (ESAP): A Pharmacy Model

In 2000, Public Health Law Section 3381 was amended to permit the sale or furnishing of syringes without a prescription to increase access to sterile syringes and reduce the transmission of blood-borne diseases such as HIV and hepatitis. Individuals 18 years of age or older can get up to 10 syringes per transaction at pharmacies, health care facilities and health care practitioners who have registered with NYSDOH.[36] As of November 2014, there were 3,403 ESAP-registered providers in NYS. Pharmacies account for 97 percent of the ESAP providers, helping to fill gaps in underserved areas. An estimated 4 million syringes are distributed through ESAP annually.[37]

Syringe exchange programs have been key in dramatically reducing the number of new HIV infections among injection drug users in NYS, from over 54% the early 1990s to less than 3% in 2014.

The NYS Safe Sharps Collection Program is expanding steadily in response to the increasing rates of injection heroin use throughout NYS. There are more than 220 collection sites in 28 counties, including 29 sites that registered in 2014. As of December 2014, more than 138,000 pounds of used sharps have been reported as collected through this program.

Combat Heroin and Prescription Drug Abuse Awareness Campaign

OASAS, NYSDOH, and the New York State Office of General Services Media Services Center collaborated in 2014 on a multifaceted public awareness and information media campaign, including a dedicated website.[38]

The Combat Heroin and Prescription Drug Abuse Awareness campaign began in September 2014 with public service announcements, a digital media campaign, and print materials. Its website contains resources for health care professionals and the public, including information about the warning signs of prescription opioid and heroin addiction, a list of treatment providers, and prevention guidance for parents talking to their children. Additionally, ten “real story” videos have been posted on the Combat Heroin website.

In December 2014, Governor Cuomo announced the next phase of the statewide campaign, reaching a broader audience through online public service announcements, ads in movie theaters, and in media messages on billboards, shopping malls, and train stations, the Long Island Rail Road, the Staten Island Ferry and the NYS Thruway.[39] The Combat Heroin PSAs and

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35 Data from NYSDOH AIDS Institute as of March 31, 2015.

36 The implementing regulations in 10 NYCRR 80.137 established the Expanded Syringe Access Program (ESAP), effective Jan. 1, 2001.

37 NYSDOH AIDS Institute, October 2015.

38 See Appendix I.

39 Online advertisements, digital media and public service announcements aired across the state for four weeks. The messaging warns that alcohol overuse and abuse of prescription opioid medications are often a gateway to heroin use, and refers those who need help to New York State’s 24-hour addiction HOPEline at 1-877-846-7369. New Yorkers struggling with an addiction, or whose loved ones are struggling, can call the toll-free HOPEline or text the HOPEline Short Code at 467369. The HOPEline is

videos underscore the message that while addiction can happen to anyone, any family, at any time – recovery is possible.

More than 24 million people were reached through the digital campaign, and the website has received 400,000 page views.

In May 2015, OASAS announced the redesigned and updated website and three-phase media campaign, ***Talk2Prevent.ny.gov***, giving parents information and tools to talk to their children about the risks of underage drinking and substance abuse.[40] The first phase launched in October 2015; the second in November 2015, and the third will launch in April 2016. ***Talk2Prevent*** also has a Facebook page featuring weekly posts on underage alcohol and drug use.

Newest Initiatives

Role of Pharmacies in Overdose Prevention

With NYS's mounting number of heroin and prescription opioid overdoses, it is increasingly important to have naloxone available in pharmacies and dispensed by pharmacists. There are community pharmacies in every corner of the State and, as in the ESAP program, they can be engaged as public health partners in addressing opioid overdose.

Pharmacies are authorized to register as an opioid overdose prevention program as long as they identify a program director and a clinical director. Many pharmacies are now stocking naloxone, and virtually all pharmacies can access naloxone through standard pharmaceutical distribution channels. As of October 2015, managed care organizations are required to cover the cost of at least one formulation of naloxone. Insurance coverage will foster increased pharmacy dispensing. Some commercial health insurance plans cover the cost of naloxone. Injectable and intranasal naloxone are covered as part of Medicaid's fee-for-service pharmacy benefit in NYS. Medicaid has requested a "J-code" from the Centers for Medicare and Medicaid Services (CMS) for the atomizer, which is not covered.

Pharmacists may now dispense naloxone pursuant to patient-specific and non-patient specific prescriptions. The latter is sometimes referred to as a standing order. There are two models for non-patient dispensing: 1) the pharmacy may become a registered opioid overdose program; or 2) the pharmacy may dispense under a standing order issued by an "external" registered opioid overdose program. Starting in late 2015, both models are in use. In 2016, there will be substantial expansion to cover all regions of the State.

Dispensing naloxone in pharmacies and continuing to address reimbursement will be priorities in 2015-16.

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staffed by masters' level clinicians who are well trained, knowledgeable, and ready to answer questions and offer treatment referrals to more than 1,500 local prevention and treatment providers. HOPEline services include crisis and motivational interviewing for callers in need, multilingual assistance, 48-hour callback to those who wish to be contacted and information materials.

[40] The website, Talk2Prevent.ny.gov, includes a toolkit for parents that has an agreement for parent and child to sign to establish a clear understanding of family rules around underage drinking. The toolkit also has conversation starters, texting ideas and a list of warning signs. Another feature of the website is the wide variety of media pieces that New York substance abuse coalitions or prevention providers can use to reach out to parents.

Opioid Overdose Prevention Trainings for Incarcerated Individuals Soon to Be Released from Prison

Studies indicate that newly released prisoners have very high rates of drug overdose deaths.[41] The NYSDOH AIDS Institute, NYS Department of Corrections and Community Supervision, and the Harm Reduction Coalition have been collaborating to provide opioid overdose prevention training to incarcerated individuals whose release date is approaching. Individuals who want a naloxone kit will get it with any other medications they receive at the time of their release.

A pilot training began in February 2015 at the Queensboro Correctional Facility. Through December 2015, more than 1,400 individuals had been trained in opioid overdose recognition and response, and more than 500 of them took a kit when released from prison. Overdose trainings are now part of the facility's inmate orientation, and refresher training is offered to inmates shortly before their release, with the option to receive a free naloxone kit upon release. Initial trainings were conducted by the Harm Reduction Coalition and then turned over to correctional staff once they were confident in conducting trainings independently.

The pilot was expanded to five correctional facilities by December 2015. Feedback has been very positive, and the goal is to have opioid overdose prevention trainings in all 54 State Correctional Facilities.

To complement the training of individuals being released, parole officers are also being trained. The first 15 parole officers were trained in Staten Island in August 2015, and more are planned throughout NYS.

The New York State Department of Corrections and Community Supervision was the first state agency to register as an opioid overdose prevention program. A standing order allows all nurses in State Correctional Facilities to administer naloxone. This groundbreaking action reinforces the Department's commitment to prevent overdose deaths.

Piloting Long-Acting Injectable Opioid Antagonist Treatment with Persons Under Criminal Justice Supervision

In 2015, OASAS initiated an opioid antagonist treatment program targeting opioid-dependent persons leaving jail, a correctional facility, on probation, or under drug court supervision. Where available, such persons who desire and consent to treatment may receive a monthly injection of long-acting naltrexone, a long-acting opioid antagonist to block the effects of heroin and prescription opioids. OASAS requires that patients treated through this program be referred for psychosocial addiction treatment at an OASAS-certified treatment provider.

Opioid Overdose Prevention Training in Schools

NYSDOH, OASAS, and the Harm Reduction Coalition have been collaborating with the NY State Education Department to allow opioid overdose prevention training and naloxone kits to be provided to school nurses and other school personnel, as well as with the State University of New York (SUNY) and the City University of New York (CUNY) to train and educate college personnel. School districts have the option to register as opioid overdose prevention programs.

A curriculum has been developed to be implemented in the 2015-16 school year. All participating schools will be able to access the training. Once training is complete, naloxone kits will be

[41] Merrall, E. L. C., Kariminia, A., Binswanger, I. A., Hobbs, M. S., Farrell, M., Marsden, J., Bird, S. M. (2010). Meta-analysis of drug-related deaths soon after release from prison. *Addiction (Abingdon, England)*, *105*(9), 1545–1554. doi:10.1111/j.1360-0443.2010.02990.x

provided to the schools free of charge. Trained staff will have access to strategically placed kits. NYSDOH's budget covers the naloxone costs for the 2015-16 fiscal year.

All administrations of naloxone will be reported to NYSDOH, entered into a database, and shared with collaborating agencies.

Also in 2015, OASAS and the State Education Department entered into a Memorandum of Understanding to update the health education curriculum guidance document regarding alcohol and other drugs for all its districts. It includes a special emphasis on heroin and other opioids

IV. Conclusions, Challenges, and Interagency Action Plans

The collaboration of state agencies to share data has been instrumental in guiding understanding of these issues and targeting actions to address them. The increasing numbers of New Yorkers negatively impacted by opioid-related overdoses challenges the State to continue collaborations and include additional partners in treatment, education, law, public safety, medical practice, professional associations, pharmacies, and other businesses.

Most overdoses are not instantaneous, and most are witnessed by others. Therefore, many overdose fatalities are preventable, especially if witnesses have had appropriate training and are prepared to respond safely and effectively. Prevention measures include education on risk factors (such as poly-drug use and recent abstinence), recognition of overdose, and appropriate responses, including calling EMS and providing resuscitation while awaiting its arrival. Administering naloxone immediately reverses the effects of heroin overdose and restores breathing. Naloxone is an opioid antagonist with no abuse potential and no effect on a recipient who has not taken opioids. It is available only by prescription, but its cost and lack of insurance coverage put it out of reach for many people, causing concern about sustainability. With its partners, NYSDOH is providing free naloxone to first responders and others who may witness an opioid overdose. With the recent authority to distribute naloxone through standing orders, more naloxone is in the hands of those who need it.

Sustained evidence-based interventions are needed to turn the tide, targeted to those at risk of overdosing, especially those struggling with dependency or addiction. There is solid scientific evidence on the effectiveness of buprenorphine and methadone maintenance treatments in protecting against overdose, as well as the spread of blood-borne diseases by reducing or eliminating drug use and the sharing of needles and syringes. A newer treatment with long-acting naltrexone is showing promise for people with opioid dependence.

Barriers to fuller access to these medications include limited insurance coverage, and stigma and prejudice against drug users and their treatment. The U.S. Secretary of Health and Human Services recently announced a plan to lift the limits on the number of patients doctors can treat with buprenorphine to help increase access to the medication. But there are not enough doctors who treat patients with buprenorphine, especially in parts of the state with little or no treatment and high need.

The State is endeavoring to reach more people throughout NYS by:

- Building on the momentum brought by training first responders and people who are likely to witness an overdose in opioid overdose prevention and equipping them with naloxone.
- Developing and implementing uniform standards for toxicology testing in identifying drug poisoning deaths. Getting this critical data early will help identify patterns and assist in developing community interventions quickly.

- Broadening overdose prevention and naloxone training to include probation, drug court and criminal court judges, family court, defense attorneys and prosecutors.
- Widening access to overdose prevention with naloxone with pharmacists, health insurance providers, and educational institutions.
- Improving access to quality opioid agonist treatments, buprenorphine and methadone, which have strong scientific support for their effectiveness in reducing risk factors and opioid use that leads to fatal overdoses.
- Expanding implementation of the opioid antagonist long-acting injectable naltrexone to prevent overdoses. All State-operated Addiction Treatment Centers (ATCs) offer this to patients.
- DCJS, OASAS, DOH, and DOCCS working together to increase the availability of pharmaceutical treatments for opioid addiction in prison, drug courts, and other treatment programs for those who are most at risk.
- Improving medical education about preventing opioid overdose through increased awareness of risks that could lead to overdose; encouraging co-prescribing of naloxone with opioid analgesics, and engaging primary care, pain and palliative care practitioners, and other medical care providers.
- Continuing to educate prescribers to use I-Stop, the New York State prescription drug monitoring program, which helps identify where individuals are receiving multiple prescriptions for pain medications and other sedatives, which may contribute to overdose deaths.
- Educating people who use drugs, their friends and loved ones to reach out for help when needed, especially when witnessing someone overdosing, through continued support for community overdose prevention programs and new programs; increasing and sustaining targeted public information campaigns to know the signs of overdose and respond effectively and call for medical assistance; and training and equipping them with naloxone.
- Developing new strategies for reaching more young people through collaborations with universities and through social media contact.
- Improving surveillance, data collection and analysis to increase our ability to identify problem areas, knowledge gaps and trends in drug use so that resources are optimally deployed for early, targeted interventions to reduce overdose fatalities.
- Reducing accidental overdose through improved care coordination and interoperability of electronic medical records, while strictly protecting patients' privacy**.**
- Assessing accessibility, quality and effectiveness of content in school curricula.
- Partnering with professional associations to develop standards for effective substance use prevention education for young people, family members and residents of communities most affected.
- Monitoring and assessing existing initiatives to determine where needs are unmet, where improvements could be made, and where successes occur and what they look like.

Appendices

Appendix A - Legal Actions Related to Opioid Overdose Prevention: Timeline

Overdose Prevention Programs

Chapter 413 of the Laws of 2005, effective April 1, 2006, added Section 3309 of the Public Health Law to provide for opioid overdose prevention programs in NYS. Pursuant to PHL Section 3309(1), as amended by Chapters 34 and 42 of the Laws of 2014, the Commissioner of Health is authorized to establish standards for approval of opioid overdose prevention programs.

April 1, 2006 *N.Y. PBH. LAW § 3309*: Opioid overdose prevention.

The statute establishing NYS's opioid overdose initiative went into effect, authorizing NYSDOH to set standards for opioid overdose prevention programs. These standards became embodied in regulation: Section 89.137 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York (10 NYCRR 89.137) in 2007.

1. The commissioner is authorized to establish standards for approval of any opioid overdose prevention program which may include, but not be limited to, standards for program directors, appropriate clinical oversight, training, record keeping and reporting.

2. Notwithstanding any inconsistent provisions of section sixty-five hundred twelve of the education law or any other law, the purchase, acquisition, possession or use of an opioid antagonist pursuant to this section shall not constitute the unlawful practice of a profession or other violation under title eight of the education law or this article.

3. Use of an opioid antagonist pursuant to this section shall be considered first aid or emergency treatment for the purpose of any statute relating to liability.

4. The commissioner shall publish findings on statewide opioid overdose data that reviews overdose death rates and other information to ascertain changes in the cause and rates of fatal opioid overdoses. The report may be part of existing state mortality reports issued by the department, and shall be submitted annually for three years and as deemed necessary by the commissioner thereafter, to the governor, the temporary president of the senate and the speaker of the assembly. The report shall include, at a minimum, the following information: (a) information on opioid overdose deaths, including age, gender, ethnicity, and geographic location; (b) data on emergency room utilization for the treatment of opioid overdose; (c) data on utilization of pre-hospital services; (d) suggested improvements in data collection.

June 24, 2014 *Amendment to § 3309:*

Authorizing health care providers to prescribe, dispense or distribute an opioid antagonist by patient specific or non-patient specific; allowing pharmacists to dispense an opioid antagonist through patient specific and non-patient specific prescribing; and permitting authorized opioid antagonist recipients to possess and distribute opioid antagonists, and administer them to persons they reasonably believe are experiencing opioid overdoses.

Feb. 1, 2007 *N.Y. Comp. Codes R. & Regs. 10, § 80.138*

Defines terms, including "Opioid Overdose Prevention Program," "Opioid antagonist," "Trained Overdose Responder," and "Registered provider."

Permits registered providers to operate an Opioid Overdose Prevention Program if they obtain a certificate of approval from NYSDOH.

Lists requirements for registered providers and Programs.

Requires Programs to maintain record-keeping system and defines requirements for that system.

Purports to limit protections of N.Y. Pub. Health Law § 3309 regarding the "purchase, acquisition, possession or use of an opioid antagonist" to approved programs and trained overdose responders.

May 6, 2015 *N.Y. Comp. Codes R. & Regs 10 § 80.138*

Sets the standards and procedures for opioid overdose prevention programs. The 2015 amendments authorize clinical directors and affiliated prescribers of registered programs to direct the furnishing or dispensing of an opioid antagonist to trained overdose responders pursuant to a patient-specific prescription or a non-patient specific prescription. This most recent version of the regulations is in N.Y. Comp. Codes R. & Regs 10, § 80.138.

Aug. 27, 2013 *N.Y. Comp. Codes R. & Regs. 10, § 80.63. Prescription Drug Reform Act Internet System for Tracking Over-Prescribing (I-STOP)*

An amendment to 10 NYCRR Section 80.63 Rules and Regulations on Controlled Substances enhancing the PMP requiring most prescribers to consult the PMP when writing prescriptions for Schedule II, III, and IV controlled substances. The amendment changed the frequency by which dispensing practitioners and pharmacies must submit dispensed controlled substance data to NYSDOH, and included a requirement for reporting that no controlled substances were dispensed.

February 2013 Two additional changes to the PMP were codified in Section 3306 of the New York State Public Health Law: Tramadol was added to the list of controlled substances and hydrocodone was up-scheduled from Schedule III to Schedule II.

N.Y. Penal and Criminal Procedure Laws

Sept. 18, 2011 *N.Y. Criminal Procedure Law §390.40 (3) The act of seeking health care for someone who is experiencing a drug or alcohol overdose or other life threatening medical emergency shall be considered by the court when presented as a mitigating factor in any criminal prosecution for a controlled substance, marihuana, drug paraphernalia, or alcohol related offense.*

Oct. 28, 2010*,* September 18, 2011 *and* April 13, 2015 *N.Y. Penal Law § 220.03*

Criminal Possession Of a Controlled Substance in the Seventh Degree was amended to exclude residue of a controlled substance in a hypodermic needle obtained pursuant to PBH Law § 3381, to provide legal protection against criminal charges and prosecution for misdemeanor possession of controlled substances, marijuana and drug paraphernalia to the person(s) seeking assistance in good faith, as well as to the person who has overdosed, known as the medical amnesty, 911 or Good Samaritan Law, and mostly recently to amend Penal Law 220.03 (criminal possession of a controlled substance 7th) and 220.45 (criminally possessing a hypodermic instrument) to make clear that the exception for possession of a syringe/needle pursuant to PBH Law § 3381 includes the state's syringe exchange and pharmacy and medical provider-based expanded syringe access programs. Created Penal Law sec. 220.78.

Expanded syringe access demonstration program (ESAP)

March 7, 2001 *N.Y. Comp. Codes R. & Regs. 10, § 80.137 Amended Part 80 of Title 10 (Health) NYCRR, pursuant to Section 3381 of the Public Health Law establishing the regulations for authorized providers to sell and furnish hypodermic needles and syringes without a prescription*

Syringe Exchange

October. 13, 1993 *N.Y. Comp. Codes R. & Regs. 10, § 80.135 Authorization to conduct hypodermic syringe and needle exchange programs*

In May 1992, NYSDOH filed emergency regulations which were adopted in October 1993 as non-emergency regulations authorizing the State Health Commissioner to approve programs and personnel to possess, collect and distribute hypodermic syringes and needles to injecting drug users without a prescription to prevent HIV transmission.

Additional Legislation

Heroin/Opioid Legislative Package

Chapter 31 (S.7902/A.10154) – Criminal sale of a controlled substance by a practitioner or pharmacist: Amends the penal law to make it a Class C Felony for a practitioner or pharmacist to knowingly and unlawfully sell a controlled substance through their professional practice.

Chapter 32 (S.7903/A.10160) – Heroin and Opioid Addiction Wraparound Services Demonstration Program: Directs the OASAS commissioner to develop a demonstration program to provide those with opioid/heroin addiction with wraparound services, from the start of treatment until up to nine months after treatment. Wraparound services include case management services (educational resources, legal services, financial services, social services, family services and childcare services), peer-to-peer support groups, employment support, and transportation assistance to address factors that can lead to relapse.

Chapter 33 (S.7904/A.10159) – Opioid Treatment and Hospital Diversion Demonstration Program: Directs the OASAS commissioner, using funds appropriated, to establish a statewide demonstration program that offers short-term residential and peer-supported detox and transitional services to individuals suffering from heroin/opioid addiction. OASAS-certified medically monitored detox beds, where appropriate, will be modified as needed to treat opioid/heroin addiction. Required services include patient and family support, and referral services upon completion of treatment.

Chapter 34 (S.7905/A.10156) – Information Sheets in Naloxone Kits: Requires naloxone kits provided under the Opioid Overdose Prevention Program to include an information sheet that includes overdose symptoms, instructions to call first responders, pre- and post-administration instructions, and the OASAS HELPLINE phone number and the OASAS website.

Chapter 35 (S.7906/A.10158) – Health Department Bureau of Narcotic Enforcement Investigators: Allows the NYSDOH Bureau of Narcotic Enforcement investigators to directly access criminal histories maintained by DCJS.

Chapter 36 (S.7907/A.10155) – Fraud and Deceit of Prescription Medication: Makes it a Class A Misdemeanor to obtain, or attempt to obtain, a controlled substance or a prescription by misrepresenting oneself as a doctor or pharmacist, concealing a material fact, giving a false name or address, or presenting a forged prescription. This will prevent doctor shopping by a patient because it makes it a crime for a patient who receives a prescription during the course of treatment from one doctor to intentionally withhold that information when receiving treatment from another doctor.

Chapter 36 (S.7908/A.10157) – Criminal sale of a controlled substance by a practitioner or pharmacist: Includes the sale of a controlled substance by a practitioner or pharmacist under the definition of a designated offense for purposes of eavesdropping warrants, and makes it a criminal act eligible for prosecution under the enterprise corruption statute.

Source: OASAS 2015

Appendix B - Opioid Overdose Related Mortality Data 2008-2013

Table B-1a: Deaths Due to Drug Overdose: NYS Residents, 2008-2013							
Year		**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
TOTAL Drug Overdose Deaths	**(X40-44, X60-64, X85, or Y10-14)**	1,651	1,538	1,395	1,824	1,842	2,175
Overdose with Opioid†	**(T40.1, T40.2, T40.3, T40.4, T40.6)**	1,100	1,030	956	1,265	1,361	1,601
Overdose with Heroin	(T40.1)	215	242	169	317	474	637
Opioid Analgesics	(T40.2, T40.3, T40.4)	763	735	754	902	879	952
Other and unspecified opioids	(T40.6)	225	136	98	144	150	163

† Deaths due to opioid overdose (ICD-10 code T40.1, T40.2, T40.3, T40.4, T40.6) are a subset of all drug overdoses (ICD-10 codes X40-44, X60-64, X85, or Y10-14).

Table B-1b: Deaths Due to Drug Overdose: NYS Residents, 2008-2013												
	Overdose with Heroin (T40.1)						**Opioid Analgesics (T40.2, T40.3, T40.4)**					
Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Sex												
Male	177	195	138	262	392	516	509	465	498	564	579	612
Female	38	47	31	55	82	121	254	270	256	338	300	340
Age Group												
0-14	0	*	0	0	0	0	*	*	*	*	*	*
15-24	23	27	26	54	68	103	68	67	81	100	68	85
25-34	43	58	31	106	155	210	126	116	129	190	175	176
35-44	48	63	42	71	84	112	174	175	165	177	187	176
45-54	76	65	50	60	123	128	270	251	244	278	250	279
55-64	22	26	18	25	43	73	99	104	113	133	161	182
65+	*	*	*	*	*	11	24	18	20	21	34	49
Race / Ethnicity												
Non-Hispanic White	133	157	114	229	334	447	588	579	589	715	677	735
Hispanic White	44	48	31	50	74	100	98	66	72	70	78	97
Black	27	28	16	30	47	59	61	73	77	82	89	83
Asian/Pacific Islander	0	*	0	*	*	*	*	*	*	*	*	8
American Indian/Alaska Native	0	0	*	*	*	0	*	*	*	*	*	0
Intent												
Unintentional (X40-44)	202	220	149	281	454	607	618	587	601	741	749	798
Undetermined (Y10-14)	9	21	19	32	19	28	71	68	82	89	58	66
Suicide (X60-64)	*	*	*	*	*	*	73	80	70	71	71	87

* Data based on frequencies less than six not reported.

Source: NYSDOH, Bureau of Occupational Health and Injury Prevention Vital Statistics Death File, June 2015, www.health.ny.gov/prevention/injury_prevention/

Table B-2: Deaths Due to Drug Overdose† Mean Annual Frequency and Rate by County: NYS Residents, 2009-2013			
County	**Mean Annual Frequency**	**Crude Rate / 100,000 Residents**	**Age-Adjusted Rate / 100,000 Residents**
Albany	25	8.2	8.2
Allegany	4	7.4**	7.9**
Broome	21	10.7	11.2
Bronx	129	9.2	9.5
Cattaraugus	4	5.0	5.8
Cayuga	9	11.1	10.6
Chautauqua	11	8.4	9.1
Chemung	12	13.5	13.8
Chenango	4	7.2**	7.1**
Clinton	6	7.3	6.5
Columbia	6	9.0	9.2
Cortland	2	4.9**	4.7**
Delaware	5	10.8	12.4
Dutchess	45	15.1	15.0
Erie	94	10.3	10.5
Essex	3	8.3**	9.1**
Franklin	4	7.8	6.9
Fulton	5	8.7	8.7
Genesee	5	7.8	7.9
Greene	7	15.2	15.9
Hamilton	*	*	*
Herkimer	5	7.6	7.6
Jefferson	11	9.6	9.6
Kings	185	7.2	7.1
Lewis	2	6.7**	7.6**
Livingston	5	7.5	8.2
Madison	7	9.2	9.8
Monroe	66	8.9	8.7
Montgomery	3	5.3**	5.3**
Nassau	127	9.4	9.6
New York	131	8.1	7.4
Niagara	26	12.2	12.5
Oneida	17	7.3	7.5
Onondaga	47	10.2	10.0
Ontario	7	6.5	6.4
Orange	47	12.3	12.4
Orleans	2	4.3**	4.3**
Oswego	16	12.8	13.1
Otsego	5	7.8	9.1
Putnam	10	10.2	10.5
Queens	138	6.0	5.6
Rensselaer	13	8.5	8.2
Richmond	71	14.7	14.2
Rockland	20	6.5	6.9
St. Lawrence	7	6.3	5.9

Saratoga	11	5.0	4.9
Schenectady	11	7.1	7.3
Schoharie	1	3.8**	4.5**
Schuyler	1	6.5**	5.3**
Seneca	4	10.4**	11**
Steuben	6	6.3	6.2
Suffolk	221	14.6	14.6
Sullivan	14	17.8	18.4
Tioga	3	5.2**	5.5**
Tompkins	9	8.6	9.9
Ulster	20	11.2	11.2
Warren	3	4.3**	3.9**
Washington	3	5.1**	5**
Wayne	6	6.7	7.0
Westchester	69	7.2	6.9
Wyoming	3	6.7**	6.6**
Yates	1	5.6**	6**
New York City	654	7.8	7.5
Rest of State	1,099	9.8	9.8
Statewide	**1,755**	**9.0**	**8.7**

† The underlying cause of death in vital records is indicated as death from drug overdose (X40-44, X60-64, X85, or Y10-14).
Age-adjusted rates are helpful in comparing counties with different age distributions.

* Data based on five year totals less than six are not reported.

** Caution: Rates calculated using frequencies of less than 20 (five-year total) are unstable.

Source: NYSDOH, Bureau of Occupational Health and Injury Prevention Vital Statistics Death File, June 2015, www.health.ny.gov/prevention/injury_prevention

Table B-3: Deaths Due to Drug Overdose: Heroin† Mean Annual Frequency and Rate by County: NYS Residents, 2009-2013			
County	**Mean Annual Frequency**	**Crude Rate / 100,000 Residents**	**Age-Adjusted Rate / 100,000 Residents**
Albany	6	1.9	1.9
Allegany	*	*	*
Bronx	41	2.9	3.0
Broome	3	1.6**	1.8**
Cattaraugus	*	*	*
Cayuga	1	1.5**	1.8**
Chautauqua	2	1.3**	1.5**
Chemung	*	*	*
Chenango	*	*	*
Clinton	*	*	*
Columbia	1	2.3**	2.2**
Cortland	*	*	*
Delaware	*	*	*
Dutchess	13	4.3	4.6
Erie	15	1.6	1.7
Essex	*	*	*
Franklin	*	*	*
Fulton	*	*	*
Genesee	*	*	*
Greene	3	5.3**	5.6**
Hamilton	*	*	*
Herkimer	*	*	*
Jefferson	2	1.3**	1.4**
Kings	29	1.1	1.1
Lewis	*	*	*
Livingston	*	*	*
Madison	*	*	*
Monroe	15	2.0	2.0
Montgomery	*	*	*
Nassau	24	1.7	1.9
New York	30	1.9	1.7
Niagara	2	1.1**	1.3**
Oneida	4	1.5**	1.6**
Onondaga	10	2.1	2.2
Ontario	*	*	*
Orange	7	1.8	2.0
Orleans	*	*	*
Oswego	1	1.2**	1.2**
Otsego	*	*	*
Putnam	2	2.4**	3.1**
Queens	33	1.4	1.4
Rensselaer	3	1.8**	1.7**
Richmond	11	2.3	2.3
Rockland	3	1**	1.2**
St. Lawrence	*	*	*

Saratoga	2	1.1**	1.2**
Schenectady	1	0.8**	0.9**
Schoharie	*	*	*
Schuyler	*	*	*
Seneca	*	*	*
Steuben	*	*	*
Suffolk	64	4.2	4.6
Sullivan	2	3.1**	3.6**
Tioga	*	*	*
Tompkins	*	*	*
Ulster	4	2.3	2.6
Warren	*	*	*
Washington	*	*	*
Wayne	1	1.3**	1.5**
Westchester	21	2.2	2.3
Wyoming	*	*	*
Yates	*	*	*
New York City	144	1.7	1.6
Rest of State	223	2.0	2.1
Statewide	**368**	**1.9**	**1.9**

† Deaths due to heroin overdose (ICD-10 code T40.1) are a subset of all drug overdoses (ICD-10 codes X40-44, X60-64, X85, or Y10-14).
Age-adjusted rates are helpful in comparing counties with different age distributions.

* Data based on five-year totals less than six are not reported.

** Caution: Rates calculated using frequencies of less than 20 (five-year total) are unstable.

Source: NYSDOH, Bureau of Occupational Health and Injury Prevention Vital Statistics Death File, June 2015, www.health.ny.gov/prevention/injury_prevention

Table B-4: Deaths Due to Drug Overdose: Opioid Analgesics† Mean Annual Frequency and Rate by County: NYS Residents, 2009-2013			
County	**Mean Annual Frequency**	**Crude Rate / 100,000 Residents**	**Age-Adjusted Rate / 100,000 Residents**
Albany	8	2.5	2.5
Allegany	3	5.7**	6.5**
Bronx	50	3.6	3.6
Broome	6	2.9	2.8
Cattaraugus	1	1.5**	1.7**
Cayuga	5	6.8	6.2
Chautauqua	4	3.3	3.5
Chemung	7	7.9	8.3
Chenango	*	*	*
Clinton	3	3.9**	3.5**
Columbia	3	4.5**	4.6**
Cortland	1	2.5**	2.4**
Delaware	2	4.7**	5.9**
Dutchess	21	7.0	6.9
Erie	43	4.7	4.8
Essex	*	*	*
Franklin	2	3.5**	3**
Fulton	2	3.6**	3.5**
Genesee	3	5.1**	5.2**
Greene	4	8.6	9.3
Hamilton	*	*	*
Herkimer	3	4.7**	5.2**
Jefferson	8	6.4	6.3
Kings	93	3.6	3.6
Lewis	*	*	*
Livingston	3	5**	5.6**
Madison	4	5.6	6.2
Monroe	33	4.5	4.4
Montgomery	*	*	*
Nassau	66	4.9	5.0
New York	49	3.0	2.8
Niagara	15	6.9	7.3
Oneida	8	3.4	3.5
Onondaga	27	5.9	5.9
Ontario	2	2.2**	2.1**
Orange	21	5.4	5.4
Orleans	1	3.3**	3.6**
Oswego	11	8.7	8.9
Otsego	2	2.9**	3.2**
Putnam	4	4.2	4.3
Queens	60	2.6	2.4
Rensselaer	6	3.8	3.8
Richmond	48	10.1	9.9
Rockland	9	3.0	3.1
St. Lawrence	5	4.9	4.8

Saratoga	4	1.6**	1.6**
Schenectady	2	1**	1**
Schoharie	*	*	*
Schuyler	*	*	*
Seneca	2	5.8**	5.6**
Steuben	2	2.5**	2.3**
Suffolk	121	8.0	7.8
Sullivan	9	11.3	11.4
Tioga	2	3.6**	3.6**
Tompkins	3	3.1**	3.5**
Ulster	11	6.3	6.1
Warren	*	*	*
Washington	*	*	*
Wayne	2	2.4**	2.3**
Westchester	33	3.4	3.2
Wyoming	2	3.8**	3.8**
Yates	*	*	*
New York City	300	3.6	3.4
Rest of State	543	4.9	4.8
Statewide	**844**	**4.3**	**4.2**

† Deaths due to opioid analgesic overdose (ICD-10 code T40.2-40.4) are a subset of all drug overdoses (ICD-10 codes X40-44, X60-64, X85, or Y10-14).
Age-adjusted rates are helpful in comparing counties with different age distributions.

* Data based on five-year totals less than six are not reported.

** Caution: Rates calculated using frequencies of less than 20 (five-year total) are unstable.

Source: NYSDOH, Bureau of Occupational Health and Injury Prevention, Vital Statistics Death File, June 2015, www.health.ny.gov/prevention/injury_prevention

Appendix C - Emergency Department Admissions

Table C-1a: Opioid-Related Emergency Department Admissions by County of Residence, 2010-2014*

County	2010		2011		2012		2013	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Albany	444	146.0	572	188.0	674	221.6	556	182.8
Allegany	33	67.4	28	57.2	38	77.6	50	102.2
Bronx	1,850	133.6	2,486	179.5	3,036	219.2	3,541	255.6
Broome	310	154.5	347	173.0	508	253.2	600	299.1
Cattaraugus	39	48.6	57	71.0	54	67.2	54	67.2
Cayuga	103	128.7	149	186.2	113	141.2	104	130.0
Chautauqua	114	84.5	114	84.5	142	105.3	244	180.9
Chemung	43	48.4	68	76.6	110	123.8	116	130.6
Chenango	41	81.2	47	93.1	72	142.6	44	87.2
Clinton	57	69.4	32	39.0	36	43.8	92	112.0
Columbia	47	74.5	71	112.5	61	96.7	76	120.5
Cortland	53	107.4	59	119.6	100	202.7	105	212.8
Delaware	45	93.8	45	93.8	38	79.2	55	114.6
Dutchess	555	186.6	556	186.9	644	216.5	707	237.7
Erie	1,585	172.5	1,847	201.0	2,252	245.0	2,406	261.8
Essex	29	73.7	39	99.1	31	78.7	51	129.5
Franklin	39	75.6	53	102.7	54	104.7	32	62.0
Fulton	67	120.7	73	131.5	101	181.9	161	289.9
Genesee	54	89.9	73	121.5	58	96.5	105	174.8
Greene	66	134.1	74	150.3	83	168.6	56	113.8
Hamilton	2	41.4	5	103.4	5	103.4	4	82.7
Herkimer	85	131.7	72	111.6	64	99.2	60	93.0
Jefferson	59	50.8	76	65.4	146	125.6	156	134.2
Kings	3,336	133.2	3,946	157.5	4,366	174.3	4,238	169.2
Lewis	12	44.3	6	22.2	16	59.1	7	25.8
Livingston	48	73.4	48	73.4	45	68.8	76	116.2
Madison	70	95.3	83	113.0	94	128.0	115	156.6
Monroe	796	106.9	784	105.3	995	133.7	1,194	160.4
Montgomery	97	193.2	110	219.0	152	302.7	168	334.5
Nassau	958	71.5	1,022	76.3	1,517	113.2	1,525	113.8
New York	1,881	118.6	2,611	164.6	2,794	176.2	2,818	177.7
Niagara	284	131.2	382	176.5	512	236.5	442	204.2
Oneida	456	194.1	365	155.4	419	178.4	444	189.0
Onondaga	729	156.1	867	185.6	1,188	254.4	1,264	270.6
Ontario	93	86.2	107	99.1	119	110.3	119	110.3
Orange	442	118.6	566	151.8	869	233.1	951	255.1
Orleans	56	130.6	59	137.6	52	121.3	77	179.6
Oswego	115	94.2	134	109.7	203	166.2	223	182.6
Otsego	57	91.6	55	88.3	55	88.3	62	99.6
Putnam	98	98.3	92	92.3	107	107.3	127	127.4
Queens	963	43.2	1,208	54.2	1,712	76.7	1,656	74.2
Rensselaer	206	129.2	305	191.3	279	175.0	177	111.0
Richmond	379	80.9	531	113.3	626	133.6	663	141.4

Table C-1a (continued): Opioid-Related Emergency Department Admissions by County of Residence, 2010-2014*								
County	2010		2011		2012		2013	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Rockland	129	41.4	230	73.8	282	90.5	324	104.0
Saratoga	311	141.6	356	162.1	403	183.5	294	133.9
Schenectady	191	123.4	235	151.9	242	156.4	354	228.8
Schoharie	22	67.2	24	73.3	24	73.3	33	100.8
Schuyler	14	76.3	19	103.6	13	70.9	24	130.8
Seneca	40	113.5	30	85.1	42	119.1	16	45.4
St Lawrence	85	75.9	101	90.2	119	106.3	157	140.2
Steuben	79	79.8	116	117.2	192	194.0	217	219.2
Suffolk	2,002	134.1	2,207	147.8	2,714	181.7	3,091	207.0
Sullivan	100	129.0	106	136.7	123	158.6	189	243.7
Tioga	32	62.6	34	66.5	49	95.8	59	115.4
Tompkins	31	30.5	45	44.3	61	60.1	58	57.1
Ulster	355	194.5	343	188.0	451	247.1	554	303.6
Warren	110	167.4	101	153.7	94	143.1	88	133.9
Washington	73	115.5	65	102.8	89	140.8	78	123.4
Wayne	52	55.5	44	46.9	71	75.7	84	89.6
Westchester	472	49.7	523	55.1	605	63.7	774	81.5
Wyoming	42	99.6	38	90.1	47	111.5	61	144.7
Yates	27	106.5	24	94.7	18	71.0	11	43.4
Unknown	843	N/A	1,005	N/A	1,302	N/A	1,723	N/A
Total	**21,806**	**112.5**	**25,870**	**133.5**	**31,481**	**162.5**	**33,910**	**175.0**

* All rates are calculated based on the U.S. Census Bureau's 2010 decennial census estimates, based on 100,000 population.

Source: SPARCS, July 2015. Prepared by NYSDOH, AIDS Institute.

Table C-1b: Opioid-Related Emergency Department Admissions by County of Residence, 2010-2014				
County	2014		2010-2014 % Change	2010 Population
	Number	Rate		
Albany	721	237.0	62.4%	304,204
Allegany	61	124.6	84.8%	48,946
Bronx	3,776	272.6	104.1%	1,385,108
Broome	458	228.3	47.7%	200,600
Cattaraugus	70	87.2	79.5%	80,317
Cayuga	157	196.2	52.4%	80,026
Chautauqua	269	199.4	136.0%	134,905
Chemung	125	140.7	190.7%	88,830
Chenango	52	103.0	26.8%	50,477
Clinton	77	93.8	35.1%	82,128
Columbia	100	158.5	112.8%	63,096
Cortland	83	168.2	56.6%	49,336
Delaware	52	108.4	15.6%	47,980
Dutchess	805	270.6	45.0%	297,488
Erie	2,328	253.3	46.9%	919,040
Essex	42	106.7	44.8%	39,370
Franklin	38	73.6	-2.6%	51,599
Fulton	94	169.3	40.3%	55,531
Genesee	136	226.4	151.9%	60,079
Greene	68	138.2	3.0%	49,221
Hamilton	8	165.4	300.0%	4,836
Herkimer	97	150.3	14.1%	64,519
Jefferson	236	203.0	300.0%	116,229
Kings	5,174	206.6	55.1%	2,504,700
Lewis	21	77.5	75.0%	27,087
Livingston	122	186.6	154.2%	65,393
Madison	156	212.4	122.9%	73,442
Monroe	1,513	203.3	90.1%	744,344
Montgomery	147	292.7	51.5%	50,219
Nassau	1,677	125.2	75.1%	1,339,532
New York	3,164	199.5	68.2%	1,585,873
Niagara	384	177.4	35.2%	216,469
Oneida	570	242.7	25.0%	234,878
Onondaga	1,263	270.4	73.3%	467,026
Ontario	207	191.8	122.6%	107,931
Orange	943	252.9	113.3%	372,813
Orleans	67	156.2	19.6%	42,883
Oswego	245	200.6	113.0%	122,109
Otsego	92	147.8	61.4%	62,259
Putnam	151	151.4	54.1%	99,710
Queens	1,836	82.3	90.7%	2,230,722
Rensselaer	345	216.4	67.5%	159,429
Richmond	741	158.1	95.5%	468,730
Rockland	404	129.6	213.2%	311,687
Saratoga	366	166.7	17.7%	219,607

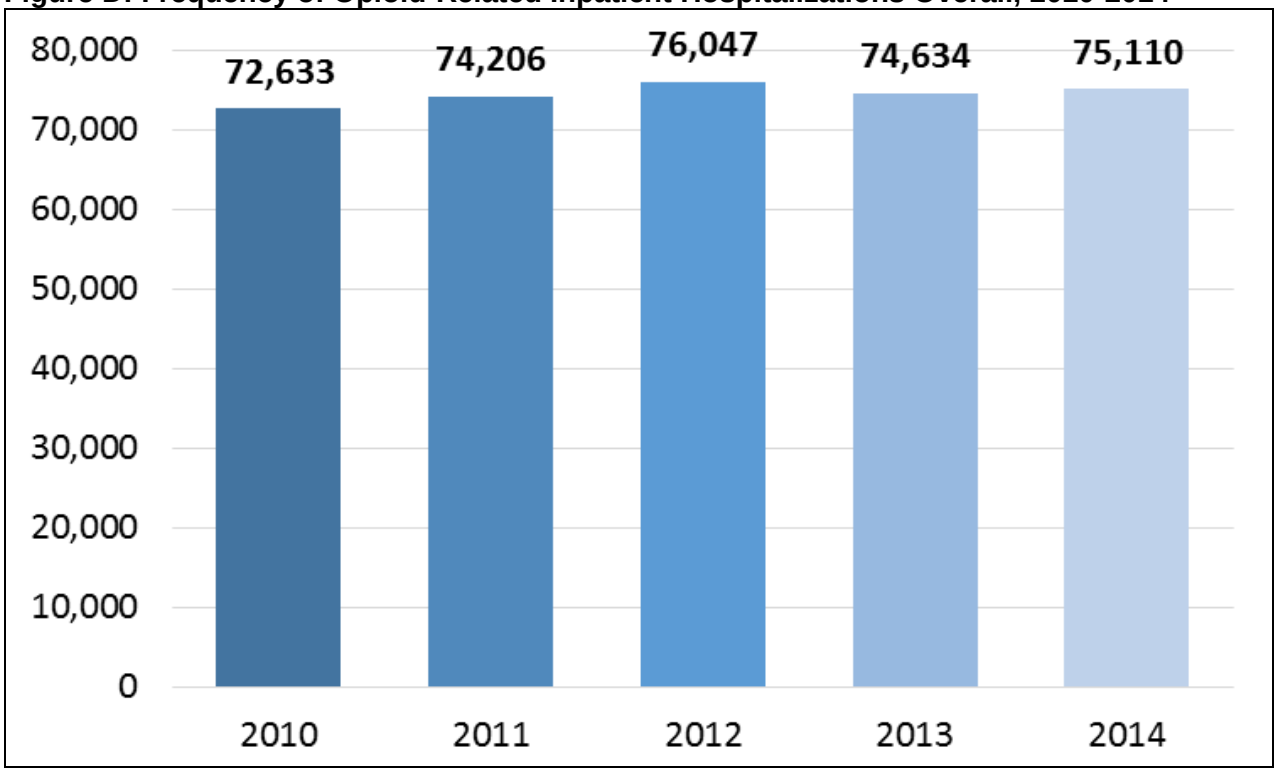
Table C-1b (continued): Opioid-Related Emergency Department Admissions by County of Residence, 2010-2014				
County	2014		2010-2014 % Change	2010 Population
	Number	Rate		
Schenectady	327	211.3	71.2%	154,727
Schoharie	38	116.0	72.7%	32,749
Schuyler	13	70.9	-7.1%	18,343
Seneca	59	167.4	47.5%	35,251
St Lawrence	177	158.1	108.2%	111,944
Steuben	230	232.3	191.1%	98,990
Suffolk	3,663	245.3	83.0%	1,493,350
Sullivan	234	301.8	134.0%	77,547
Tioga	69	135.0	115.6%	51,125
Tompkins	98	96.5	216.1%	101,564
Ulster	535	293.2	50.7%	182,493
Warren	103	156.8	-6.4%	65,707
Washington	88	139.2	20.5%	63,216
Wayne	135	144.0	159.6%	93,772
Westchester	947	99.8	100.6%	949,113
Wyoming	62	147.1	47.6%	42,155
Yates	48	189.4	77.8%	25,348
Unknown	1,480	N/A	N/A	N/A
Total	**37,747**	**194.8**	**73.1%**	**19,378,102**

* All rates are calculated based on the U.S. Census Bureau's 2010 decennial census estimates, based on 100,000 population.

Source: SPARCS, July 2015. Prepared by NYSDOH, AIDS Institute.

Appendix D - Opioid-Related Inpatient Hospitalizations

Figure D: Frequency of Opioid-Related Inpatient Hospitalizations Overall, 2010-2014



Source: SPARCS July 2015. Prepared by NYSDOH, AIDS Institute.

Table D-1a: Opioid-Related Inpatient Hospital Admissions by County of Residence, 2010-2014*								
County	2010		2011		2012		2013	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Albany	1,015	333.7	836	274.8	975	320.5	1,007	331.0
Allegany	72	147.1	103	210.4	72	147.1	96	196.1
Bronx	12,421	896.8	12,551	906.1	12,577	908.01	12,191	880.1
Broome	460	229.3	473	235.8	548	273.2	604	301.1
Cattaraugus	174	216.6	182	226.6	85	105.8	108	134.5
Cayuga	92	178.7	155	193.7	149	186.2	133	166.2
Chautauqua	178	232.0	301	223.1	321	237.9	440	326.2
Chemung	159	276.9	190	213.9	269	302.8	228	256.7
Chenango	64	210.0	118	233.8	102	202.1	95	188.2
Clinton	114	258.1	232	282.5	238	289.8	183	222.8
Columbia	111	259.9	164	259.9	177	280.5	219	347.1
Cortland	52	139.9	69	139.9	88	178.4	71	143.9
Delaware	51	193.8	98	204.3	90	187.6	113	235.5
Dutchess	427	392.3	1,108	372.5	1,309	440.0	1,161	390.3
Erie	1,579	326.9	3,232	351.7	3,027	329.4	2,932	319.0
Essex	36	157.5	61	154.9	61	154.9	60	152.4
Franklin	52	319.8	139	269.4	88	170.5	43	83.3
Fulton	98	275.5	194	349.4	214	385.4	206	371.0
Genesee	67	221.4	148	246.3	194	322.9	183	304.6
Greene	119	471.3	174	353.5	190	386.0	197	400.2
Hamilton	7	206.8	7	144.7	4	82.7	13	268.8
Herkimer	102	238.7	121	187.5	146	226.3	140	217.0
Jefferson	60	148.8	200	172.1	256	220.3	180	154.9
Kings	6,321	429.8	11,003	439.3	10,844	432.9	10,152	405.3
Lewis	14	77.5	24	88.6	32	118.1	40	147.7
Livingston	46	145.3	123	188.1	110	168.2	103	157.5
Madison	54	125.3	112	152.5	110	149.8	111	151.1
Monroe	876	171.7	1,432	192.4	1,637	219.9	1,877	252.2
Montgomery	155	436.1	218	434.1	213	424.1	224	446.0
Nassau	2,346	234.4	3,239	241.8	3,364	251.1	3,068	229.0
New York	5,576	633.3	10,273	647.8	10,196	642.9	9,585	604.4
Niagara	516	367.3	913	421.8	846	390.8	780	360.3
Oneida	468	286.1	619	263.5	712	303.1	667	284.0
Onondaga	741	235.3	1,206	258.2	1,391	297.8	1,538	329.3
Ontario	151	205.7	229	212.2	231	214.0	221	204.8
Orange	896	322.1	1,261	338.2	1,521	408.0	1,473	395.1
Orleans	29	135.3	100	233.2	84	195.9	116	270.5
Oswego	135	159.7	251	205.6	316	258.8	331	271.1
Otsego	110	244.1	129	207.2	127	204.0	130	208.8
Putnam	173	273.8	216	216.6	228	228.7	268	268.8

Table D-1a: Opioid-Related Inpatient Hospital Admissions by County of Residence, 2010-2014*								
County	2010		2011		2012		2013	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Queens	3,290	203.7	4,572	205.0	4,320	193.7	4,300	192.8
Rensselaer	431	329.3	496	311.1	462	289.8	472	296.1
Richmond	1,500	623.2	3,180	678.4	3,241	691.4	2,837	605.3
Rockland	453	205.3	672	215.6	687	220.4	683	219.1
Saratoga	336	202.2	385	175.3	394	179.4	440	200.4
Schenectady	438	283.1	335	216.5	391	252.7	466	301.2
Schoharie	54	164.9	41	125.2	48	146.6	60	183.2
Schuyler	47	256.2	22	119.9	33	179.9	26	141.7
Seneca	56	158.9	52	147.5	78	221.3	76	215.6
St Lawrence	511	456.5	582	519.9	613	547.6	962	859.4
Steuben	206	208.1	200	202.0	262	264.7	251	253.6
Suffolk	4,891	327.5	5,078	340.0	5,265	352.6	5,422	363.1
Sullivan	397	511.9	451	581.6	404	521.0	361	465.5
Tioga	68	133.0	85	166.3	72	140.8	71	138.9
Tompkins	132	130.0	154	151.6	165	162.5	209	205.8
Ulster	600	328.8	688	377.0	784	429.6	744	407.7
Warren	210	319.6	174	264.8	161	245.0	164	249.6
Washington	175	276.8	156	246.8	126	199.3	188	297.4
Wayne	120	128.0	118	125.8	136	145.0	180	192.0
Westchester	2,071	218.2	2,228	234.7	2,456	258.8	2,275	239.7
Wyoming	61	144.7	87	206.4	83	196.9	93	220.6
Yates	30	118.4	37	146.0	38	149.9	32	126.2
Unknown	2,433	N/A	2,209	N/A	2,686	N/A	3,035	N/A
Total	72,633	374.8	74,206	382.9	76,047	392.4	74,634	385.1

Table D-1b: Opioid-Related Inpatient Hospital Admissions by County of Residence, 2010-2014*				
County	2014		2010-2014 % Change	2010 Population
	Number	Rate		
Albany	956	314.3	-5.8%	304,204
Allegany	71	145.1	-1.4%	48,946
Bronx	11,900	859.1	-4.2%	1,385,108
Broome	602	300.1	30.9%	200,600
Cattaraugus	175	217.9	0.6%	80,317
Cayuga	170	212.4	18.9%	80,026
Chautauqua	504	373.6	61.0%	134,905
Chemung	237	266.8	-3.7%	88,830
Chenango	92	182.3	-13.2%	50,477
Clinton	164	199.7	-22.6%	82,128
Columbia	221	350.3	34.8%	63,096
Cortland	109	220.9	58.0%	49,336

Table D-1b: Opioid-Related Inpatient Hospital Admissions by County of Residence, 2010-2014*				
County	2014		2010-2014 % Change	2010 Population
	Number	Rate		
Delaware	85	177.2	-8.6%	47,980
Dutchess	1,112	373.8	-4.7%	297,488
Erie	3,163	344.2	5.3%	919,040
Essex	39	99.1	-37.1%	39,370
Franklin	45	87.2	-72.7%	51,599
Fulton	207	372.8	35.3%	55,531
Genesee	215	357.9	61.7%	60,079
Greene	236	479.5	1.7%	49,221
Hamilton	11	227.5	10.0%	4,836
Herkimer	138	213.9	-10.4%	64,519
Jefferson	169	145.4	-2.3%	116,229
Kings	10,373	414.1	-3.6%	2,504,700
Lewis	35	129.2	66.7%	27,087
Livingston	130	198.8	36.8%	65,393
Madison	148	201.5	60.9%	73,442
Monroe	1,804	242.4	41.2%	744,344
Montgomery	221	440.1	0.9%	50,219
Nassau	3,090	230.7	-1.6%	1,339,532
New York	9,002	567.6	-10.4%	1,585,873
Niagara	759	350.6	-4.5%	216,469
Oneida	673	286.5	0.1%	234,878
Onondaga	1,570	336.2	42.9%	467,026
Ontario	202	187.2	-9.0%	107,931
Orange	1,411	378.5	17.5%	372,813
Orleans	107	249.5	84.5%	42,883
Oswego	380	311.2	94.9%	122,109
Otsego	126	202.4	-17.1%	62,259
Putnam	256	256.7	-6.2%	99,710
Queens	4,429	198.5	-2.5%	2,230,722
Rensselaer	410	257.2	-21.9%	159,429
Richmond	2,743	585.2	-6.1%	468,730
Rockland	763	244.8	19.2%	311,687
Saratoga	432	196.7	-2.7%	219,607
Schenectady	529	341.9	20.8%	154,727
Schoharie	50	152.7	-7.4%	32,749
Schuyler	32	174.5	-31.9%	18,343
Seneca	74	209.9	32.1%	35,251
St Lawrence	828	739.7	62.0%	111,944
Steuben	251	253.6	21.8%	98,990
Suffolk	6,323	423.4	29.3%	1,493,350

Table D-1b: Opioid-Related Inpatient Hospital Admissions by County of Residence, 2010-2014*				
County	2014		2010-2014 % Change	2010 Population
	Number	Rate		
Sullivan	334	430.7	-15.9%	77,547
Tioga	102	199.5	50.0%	51,125
Tompkins	241	237.3	82.6%	101,564
Ulster	775	424.7	29.2%	182,493
Warren	201	305.9	-4.3%	65,707
Washington	167	264.2	-4.6%	63,216
Wayne	155	165.3	29.2%	93,772
Westchester	2,462	259.4	18.9%	949,113
Wyoming	91	215.9	49.2%	42,155
Yates	39	153.9	30.0%	25,348
Unknown	2,771	N/A	N/A	N/A
Total	75,110	387.6	3.4%	N/A

* All rates are calculated based on the U.S. Census Bureau's 2010 decennial census estimates, based on 100,000 population.

Source: SPARCS July 2015. Prepared by NYSDOH, AIDS Institute.

Appendix E - Naloxone Distribution to Registered Programs, 2007-2015

Table E: Doses* of Naloxone Going to Registered Programs per Year					
Year	**IM Doses**	**IN Doses**	**IM + IN Doses**	**Running Dose Total**	**Running Kit Total**
2007	3,250		3,250	3,250	1,625
2008	6,680		6,680	9,930	4,965
2009	8,960		8,960	18,890	9,445
2010	7,740		7,740	26,630	13,315
2011	7,860		7,860	34,490	17,245
2012	7,020	1,600	8,620	43,110	21,555
2013	13,400	4,005	17,405	60,515	30,258
2014	10,840	48,750	59,590	120,105	60,053
2015	22,040	115,770	137,810	257,915	128,958

* There are two doses provided per kit.
IM = intramuscular administration
IN = intranasal administration

Source: NYSDOH, AIDS Institute, March 2016.

Appendix F - Summary of Law Enforcement Naloxone Administration Reports

Table F-1: Law Enforcement Naloxone Administration Reports, by County through December 31, 2015 (N=1,100)

County	Number	Percentage	Population (2010 Census)	Rate (per 100,000)
Albany	8	0.7%	304,204	2.6
Allegany	3	0.3%	48,946	6.1
Broome	23	2.1%	200,600	11.5
Cattaraugus	4	0.4%	80,317	5.0
Cayuga	7	0.6%	80,026	8.7
Chautauqua	20	1.8%	134,905	14.8
Chemung	5	0.5%	88,830	5.6
Chenango	6	0.5%	50,477	11.9
Clinton	2	0.2%	82,128	2.4
Columbia	8	0.7%	63,096	12.7
Cortland	14	1.3%	49,336	28.4
Delaware	2	0.2%	47,980	4.2
Dutchess	50	4.5%	297,488	16.8
Erie	231	21.0%	919,040	25.1
Essex	3	0.3%	39,370	7.6
Franklin	3	0.3%	51,599	5.8
Fulton	1	0.1%	55,531	1.8
Genesee	1	0.1%	60,079	1.7
Greene	5	0.5%	49,221	10.2
Herkimer	1	0.1%	64,519	1.5
Jefferson	5	0.5%	116,229	4.3
Kings	1	0.1%	2,504,700	0.0
Livingston	8	0.7%	65,393	12.2
Madison	7	0.6%	73,442	9.5
Monroe	10	0.9%	744,344	1.3
Nassau	19	1.7%	1,339,532	1.4
New York	8	0.7%	1,585,873	0.5
Niagara	28	2.5%	216,469	12.9
Oneida	12	1.1%	234,878	5.1
Onondaga	36	3.3%	467,026	7.7
Ontario	13	1.2%	107,931	12.0
Orange	88	8.0%	372,813	23.6
Oswego	6	0.5%	122,109	4.9
Otsego	4	0.4%	62,259	6.4
Putnam	1	0.1%	99,710	1.0
Rensselaer	5	0.5%	159,429	3.1
Rockland	36	3.3%	311,687	11.6
Saratoga	11	1.0%	219,607	5.0
Schoharie	1	0.1%	32,749	3.1
Seneca	13	1.2%	35,251	36.9
St. Lawrence	9	0.8%	111,944	8.0
Steuben	2	0.2%	98,990	2.0
Suffolk	234	21.3%	1,493,350	15.7

Table F-1 (continued): Law Enforcement Naloxone Administration Reports, by County through Dec. 31, 2015 (N=1,100)				
County	**Number**	**Percentage**	**Population (2010 Census)**	**Rate (per 100,000)**
Sullivan	25	2.3%	77,547	32.2
Tioga	1	0.1%	51,125	2.0
Tompkins	5	0.5%	101,564	4.9
Ulster	30	2.7%	182,493	16.4
Warren	3	0.3%	65,707	4.6
Washington	7	0.6%	63,216	11.1
Wayne	16	1.5%	93,772	17.1
Westchester	49	4.5%	949,113	5.2
Wyoming	2	0.2%	42,155	4.7
Yates	8	0.7%	25,348	31.6

Source: NYSDOH, AIDS Institute, Office of Program Evaluation and Research, Dec. 31, 2015.

Table F-2: Age Ranges of Individuals who were Administered Naloxone by Law Enforcement through December 31, 2015 (N=982)		
Age Range	**Number**	**Percentage**
14 years or less	2	0.2%
15 - 24 years old	325	30.9%
25 - 34 years old	446	42.4%
35 - 44 years old	152	14.5%
45 - 54 years old	84	8.0%
55 - 64 years old	38	3.6%
64 or older	4	0.4%

Source: NYSDOH, AIDS Institute, Office of Program Evaluation and Research, Dec. 31, 2015.

Appendix G - Emergency Basic Medical Services

Figure G: Training Results Poster Presentation

Distributive Education Can be Used to Teach Basic EMTs to Treat Opioid Overdose with Intranasal Naloxone

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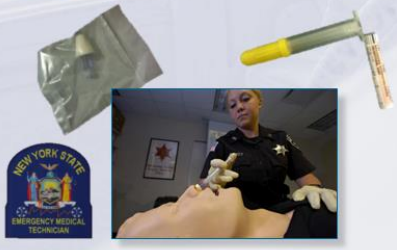
Background

The NYS Opioid Overdose Prevention Program authorizes lay-responders to administer naloxone for opioid overdose. Many areas of the state are without adequate availability of trained overdose responders. In these areas, basic emergency medical technicians (EMT-B) are likely to be the first on the scene with the potential to play a role in reversing an opioid overdose.

However, in NYS with the exception of epinephrine autoinjectors, the scope of practice of EMT - B does not include IV or IM administration of medications. Intranasal (IN) naloxone administration is an accepted off-label treatment, removes hazard to personnel from sharps injury and is the safest way of adding opioid overdose treatment to the scope of practice for the EMT-B.

Objectives

This training program prepared EMT-B to administer IN naloxone in cases of suspected opioid overdose. It explores EMT-B self-assessed confidence in administering the medication and attitudes and beliefs about the acceptability of expanding their scope of practice to include administering IN naloxone.



Methods

Participants completed training including pre and post training surveys to assess confidence and attitudes regarding administering IN naloxone in opioid overdose. Descriptive statistics were performed. The sixty to ninety minute training includes a short video and supervised time practicing with a nasal-atomizer. All administrations of naloxone were reviewed for compliance with protocol and safety of personnel.

Video may be viewed at: http://youtu.be/Q4HVeYqHSLk

Results

Over 1200 EMTs received the training in the first 6 months. Participants demonstrated a significant increase in self-assessed confidence in administering IN naloxone (figure 1) and believed it to be an acceptable practice for EMT-B. Eighty percent had cared for opioid overdose and 92% knew of naloxone prior to the training. In 6 months, 69 overdoses were treated. (figure 2) There was no actual hazard to EMS personnel noted in case review. No adverse outcomes. There were two protocol violations without harm.

Figure 1 – Provider Confidence and Acceptability

	Pretest Mean	Post-test Mean	Mean Change (95% CI)
I can recognize opioid overdose	6.7	8.6	1.9 (1.8 – 2.1)
I am comfortable treating opioid overdose	7.2	8.7	0.2 (0.1 - 0.3)
I am confident administering IN	7.3	8.9	1.6 (1.3 – 1.6)
Confident in knowledge of naloxone	6.2	8.7	2.5 (2.4 – 2.7)
Should be in scope of practice for EMT-B	8.1	9.0	0.9 (0.7 – 1.0)

Conclusion

This study demonstrates that a brief training program allows EMT-B confidence in administration of IN naloxone and they view this as an appropriate part of their practice. Given the significant public health and individual health benefits of being able to reverse an opioid overdose, and safety of the IN administration of the medication, this should pave the way for more wide-spread use of IN naloxone.

Figure 2 – Patient and overdose characteristics

Male gender	75%	
Overdose agent was heroin	66%	Unknown opioid in 16%, Oxy/Hydro 6%
Single dose of naloxone	66%	Additional IV dose in 28%
Potential hazards to crew noted by EMT	12%	Anger and agitation after reversal only; no assaults
Injuries or assault on crew	0	Consistent with other programs

The authors report no conflicts of interest

Source: Albany Medical College, University of Rochester, NYSDOH AIDS Institute, and NYSDOH Bureau of EMS and Trauma Systems, 2015.

Appendix H - Prescription Opioid and Heroin Treatment Admissions to OASAS-Certified Treatment Programs

Table H-1: Primary Prescription Opioids Frequency of Use at Admission by Program Category, 2010-2014

Program Category	No Past Month Use		1-3 Times Past Month		1-2 Times per Week		3-6 Times per Week		Daily		Total
	n	%	n	%	n	%	n	%	n	%	
2010											
Residential	559	55%	99	10%	38	4%	67	7%	256	25%	1,019
Outpatient	3,466	42%	1,114	14%	315	4%	1,093	13%	2,209	27%	8,197
Opioid Treatment Program	100	14%	17	2%	14	2%	131	19%	432	62%	694
Inpatient	172	5%	115	4%	61	2%	328	10%	2,468	78%	3,144
Crisis	67	1%	108	2%	43	1%	182	3%	5,313	93%	5,713
Total	**4,364**	**23%**	**1,453**	**8%**	**471**	**3%**	**1,801**	**10%**	**10,678**	**57%**	**18,767**
2011											
Residential	902	55%	160	10%	37	2%	113	7%	414	25%	1,626
Outpatient	4,231	42%	1,237	12%	414	4%	1,348	13%	2,858	28%	10,088
Opioid Treatment Program	87	11%	29	4%	11	1%	132	17%	507	66%	766
Inpatient	235	6%	147	4%	90	2%	378	10%	3,049	78%	3,899
Crisis	153	2%	153	2%	71	1%	235	3%	6,460	91%	7,072
Total	**5,608**	**24%**	**1,726**	**7%**	**623**	**3%**	**2,206**	**9%**	**13,288**	**57%**	**23,451**
2012											
Residential	931	56%	139	8%	41	2%	114	7%	437	26%	1,662
Outpatient	5,007	44%	1,304	11%	433	4%	1,623	14%	3,023	27%	11,390
Opioid Treatment Program	124	16%	20	3%	18	2%	105	14%	491	65%	758
Inpatient	314	8%	169	5%	110	3%	363	10%	2,774	74%	3,730
Crisis	183	3%	128	2%	79	1%	233	4%	5,387	90%	6,010
Total	**6,559**	**28%**	**1,760**	**7%**	**681**	**3%**	**2,438**	**10%**	**12,112**	**51%**	**23,550**
2013											
Residential	791	57%	116	8%	47	3%	113	8%	323	23%	1,390
Outpatient	4,688	43%	1,340	12%	488	4%	1,370	12%	3,095	28%	10,981
Opioid Treatment Program	157	24%	28	4%	14	2%	101	15%	359	54%	659
Inpatient	248	8%	154	5%	87	3%	291	9%	2,329	75%	3,109
Crisis	178	4%	134	3%	56	1%	214	4%	4,301	88%	4,883
Total	**6,062**	**29%**	**1,772**	**8%**	**692**	**3%**	**2,089**	**10%**	**10,407**	**50%**	**21,022**
2014											
Residential	664	59%	84	7%	28	2%	72	6%	282	25%	1,130
Outpatient	4,134	42%	1,136	12%	443	4%	975	10%	3,159	32%	9,847
Opioid Treatment Program	89	17%	18	3%	9	2%	66	13%	341	65%	523
Inpatient	234	9%	121	5%	62	2%	217	9%	1,887	75%	2,521
Crisis	153	4%	93	2%	68	2%	206	5%	3,551	87%	4,071
Total	**5,274**	**29%**	**1,452**	**8%**	**610**	**3%**	**1,536**	**8%**	**9,220**	**51%**	**18,092**

Source: NYS OASAS Data Warehouse, Client Data System, extract of June 7, 2015.

Table H-2: Heroin Frequency of Use at Admission by Program Category, 2010-2014											
Program Category	No Past Month Use		1-3 Times Past Month		1-2 Times per Week		3-6 Times per Week		Daily		Total
	n	%	n	%	n	%	n	%	n	%	
2010											
Outpatient	7,967	58%	1,619	12%	513	4%	1,222	9%	2,407	18%	13,728
Residential	2,124	52%	393	10%	119	3%	335	8%	1,141	28%	4,112
Opioid Treatment Program	2,416	22%	569	5%	310	3%	1,713	16%	5,765	54%	10,773
Inpatient	419	6%	254	4%	166	3%	540	8%	5,179	79%	6,558
Crisis	334	2%	290	1%	180	1%	934	5%	18,991	92%	20,729
Total	**13,260**	**24%**	**3,125**	**6%**	**1,288**	**2%**	**4,744**	**8%**	**33,483**	**60%**	**55,900**
2011											
Outpatient	7,320	56%	1,475	11%	533	4%	1,093	8%	2,625	20%	13,046
Residential	2,160	48%	456	10%	114	3%	369	8%	1,358	30%	4,457
Opioid Treatment Program	2,131	21%	505	5%	267	3%	1,428	14%	6,011	58%	10,342
Inpatient	454	7%	294	5%	147	2%	559	9%	4,971	77%	6,425
Crisis	354	2%	342	2%	201	1%	1,009	5%	18,745	91%	20,651
Total	**12,419**	**23%**	**3,072**	**6%**	**1,262**	**2%**	**4,458**	**8%**	**33,710**	**61%**	**54,921**
2012											
Outpatient	7,393	52%	1,636	12%	589	4%	1,526	11%	3,022	21%	14,166
Residential	2,116	47%	360	8%	132	3%	330	7%	1,574	35%	4,512
Opioid Treatment Program	2,685	24%	504	4%	289	3%	1,633	15%	6,111	54%	11,222
Inpatient	498	6%	309	4%	202	3%	648	8%	6,028	78%	7,685
Crisis	475	2%	384	2%	222	1%	1,070	5%	20,352	90%	22,503
Total	**13,167**	**22%**	**3,193**	**5%**	**1,434**	**2%**	**5,207**	**9%**	**37,087**	**62%**	**60,088**
2013											
Outpatient	8,351	48%	2,052	12%	761	4%	1,785	10%	4,308	25%	17,257
Residential	2,510	47%	416	8%	186	3%	436	8%	1,784	33%	5,332
Opioid Treatment Program	2,164	19%	484	4%	277	2%	1,839	16%	6,512	58%	11,276
Inpatient	651	7%	327	3%	221	2%	673	7%	7,739	81%	9,611
Crisis	615	2%	363	1%	213	1%	758	3%	23,222	92%	25,171
Total	**14,291**	**21%**	**3,642**	**5%**	**1,658**	**2%**	**5,491**	**8%**	**43,565**	**63%**	**68,647**
2014											
Outpatient	9,537	47%	2,378	12%	890	4%	1,784	9%	5,912	29%	20,501
Residential	2,888	50%	481	8%	199	3%	519	9%	1,677	29%	5,764
Opioid Treatment Program	1,770	16%	477	4%	255	2%	1,500	14%	7,013	64%	11,015
Inpatient	704	6%	288	3%	239	2%	528	5%	9,306	84%	11,065
Crisis	814	3%	444	2%	274	1%	832	3%	26,938	92%	29,302
Total	**15,713**	**20%**	**4,068**	**5%**	**1,857**	**2%**	**5,163**	**7%**	**50,846**	**65%**	**77,647**

Source: NYS OASAS Data Warehouse, Client Data System, extract of June 7, 2015.

Table H-3a: Treatment Admissions for Any Opioid by Age, 2010-2014							
Age	Year of Admission					Change from 2010 to 2014	
	2010	2011	2012	2013	2014	n	%
Under 18	1,359	1,326	1,214	1,041	892	(318)	-34%
18-19	3,243	3,014	3,169	2,910	2,528	(333)	-22%
20-29	31,147	33,511	36,885	39,882	43,168	8,735	39%
30-39	22,602	23,277	24,853	27,052	29,843	4,450	32%
40-49	26,534	26,211	25,111	23,945	23,228	(2,589)	-12%
50-59	12,915	13,941	14,629	15,114	15,777	2,199	22%
60-69	2,045	2,349	2,721	3,035	3,209	990	57%
70-79	150	145	163	182	221	32	47%
80+	9	13	11	9	9	-	0%
All Ages	**100,004**	**103,787**	**108,756**	**113,170**	**118,875**	**13,166**	**19%**

Source: NYS OASAS Data Warehouse, Client Data System, extract of June 7, 2015.

Table H-3b: Treatment Admissions for Any Opioid by Region of Residence, 2010-2014							
Region	Year of Admission					Change from 2010 to 2014	
	2010	2011	2012	2013	2014	n	%
New York City	47,915	48,199	48,307	47,292	47,783	(132)	0%
Long Island	12,887	13,906	14,999	15,518	16,681	3,794	29%
Upstate	39,202	41,682	45,450	50,360	54,411	15,209	39%
Capital Region	5,418	5,119	5,387	6,194	6,762	1,344	25%
Central NY	4,093	4,668	5,402	6,333	7,070	2,977	73%
Finger Lakes	4,861	5,461	5,692	6,834	7,583	2,722	56%
Mid-Hudson	10,232	10,911	11,732	12,485	12,317	2,085	20%
Mohawk Valley	1,978	2,192	2,489	2,796	3,218	1,240	63%
North Country	2,323	2,726	2,918	3,046	3,307	984	42%
Southern Tier	2,618	2,865	3,368	3,660	4,000	1,382	53%
Western NY	7,679	7,740	8,462	9,012	10,154	2,475	32%
All NYS Residents	**100,004**	**103,787**	**108,756**	**113,170**	**118,875**	**18,871**	**19%**

Source: NYS OASAS Data Warehouse, Client Data System, extract of June 7, 2015.

Table H-3c: Treatment Admissions for Any Opioid by Program, 2010-2014							
Region	Year of Admission					Change from 2010 to 2014	
	2010	2011	2012	2013	2014	n	%
Crisis	36,456	37,894	38,385	38,869	42,398	5,942	16%
Inpatient	14,015	14,708	15,730	16,975	17,745	3,730	27%
Residential	6,810	7,815	7,909	8,379	8,340	1,530	22%
Outpatient	31,252	32,262	34,752	37,012	38,854	7,602	24%
Opioid Treatment Program	11,471	11,108	11,980	11,935	11,538	67	1%
All Program Categories	**100,004**	**103,787**	**108,756**	**113,170**	**118,875**	**18,871**	**19%**

Source: NYS OASAS Data Warehouse, Client Data System, extract of June 7, 2015.

Table H-3d: Unique Individuals' Treatment Admissions for Any Opioid, All Programs, 2010-2014							
Region	Year of Admission					Change from 2010 to 2014	
	2010	2011	2012	2013	2014	n	%
Total Any Opioid Admissions	100,004	103,787	108,756	113,170	118,875	18,871	19%
People Admitted for Any Opioids	54,905	56,638	59,311	60,746	62,466	7,561	12%
Duplicate Admissions	45,099	47,149	49,445	52,424	56,409	11,310	20%
Any Opioid Admissions per Person	1.82	1.83	1.83	1.86	1.90		

Source: NYS OASAS Data Warehouse, Client Data System, extract of June 7, 2015.

Appendix I - Online Resources

Community Overdose Prevention Programs

- ✓ Directory of community overdose prevention programs and an interactive map showing their locations: http://www.health.ny.gov/overdose
- ✓ Program registration form: http://www.health.ny.gov/overdose
- ✓ Community overdose prevention training calendar: http://www.health.ny.gov/diseases/aids/general/opioid_overdose_prevention/training_calendar.htm
- ✓ Syringe Access, including locations and hours of operation of providers: http://www.health.ny.gov/diseases/aids/consumers/prevention/needles_syringes/index.htm
- ✓ ESAP pharmacy, providers, and health care facility directory: http://www.health.ny.gov/diseases/aids/consumers/prevention/needles_syringes/index.htm

Emergency Medical Services Basic Life Support

- ✓ Naloxone protocol: http://www.cnyems.org/documents/listings/narcan%20memo%20and%20policy%20statement%202013.pdf
- ✓ Web-based BLS naloxone training: http://youtu.be/Q4HVeYqHSLk

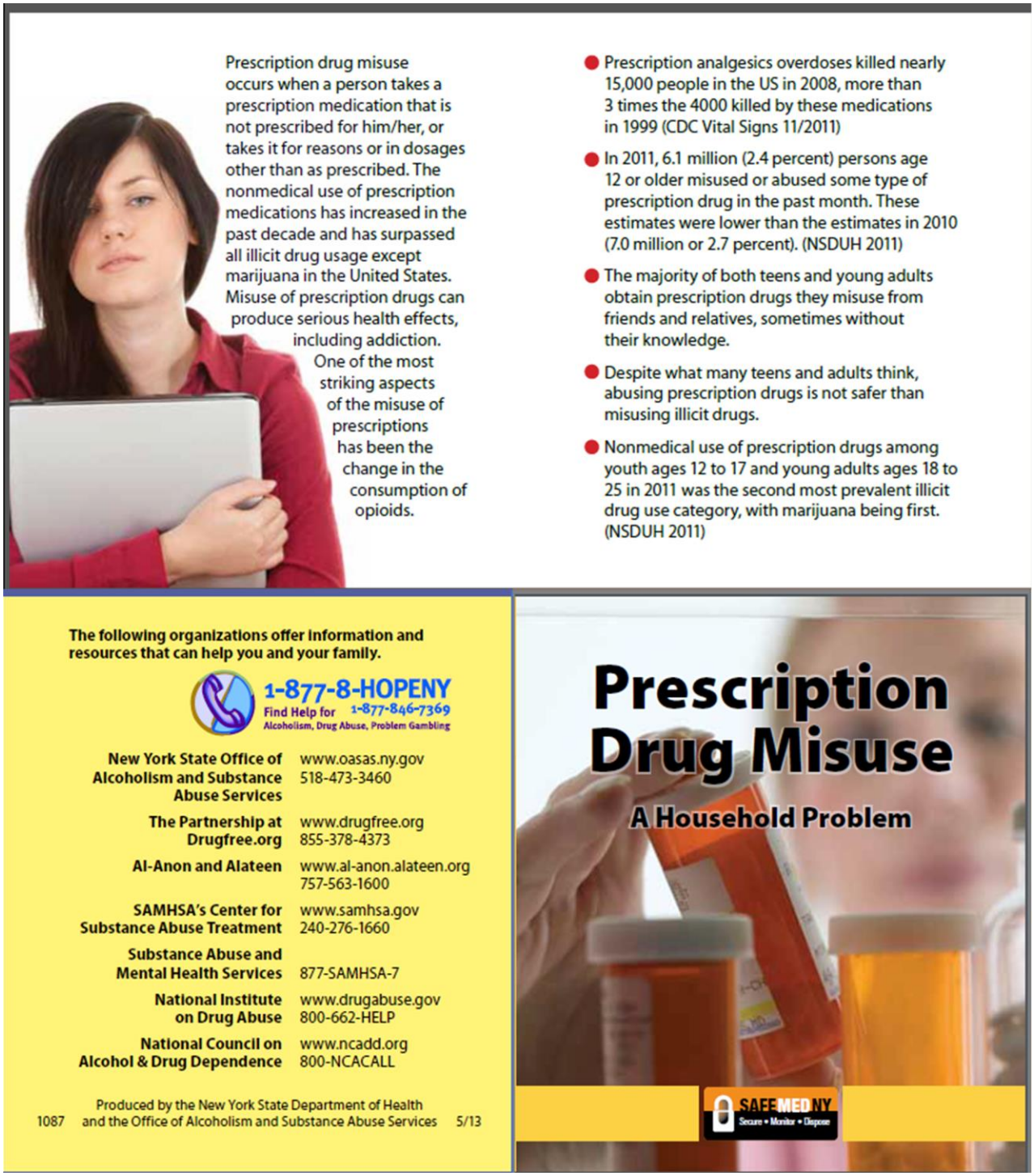
Treatment and Prevention

- ✓ Combat Heroin website: http://combatheroin.ny.gov/
- ✓ New York State Office of Alcoholism and Substance Abuse Services Addiction Treatment Centers' Calendar of Heroin and Opioid Overdose Prevention Training Sessions: http://www.oasas.ny.gov/atc/ATCherointraining.cfm

Prescription Drug Awareness

- ✓ Bureau of Narcotics Enforcement website: Prescription Drug Abuse Awareness http://www.health.ny.gov/professionals/narcotic/prescription_drug_abuse_awareness/
- ✓ Office of Alcohol and Substance Abuse Services website: http://www.oasas.ny.gov/StopRxMisuse/index.cfm

Figure I: Prescription Drug Misuse Brochure



Source: NYS OASAS, May 2013. www.oasas.ny.gov/publications/pdf/SafeMedNY-1087.pdf