

# NYC Department of Health and Mental Hygiene

**2019 Provisional Drug Overdose Mortality Data**

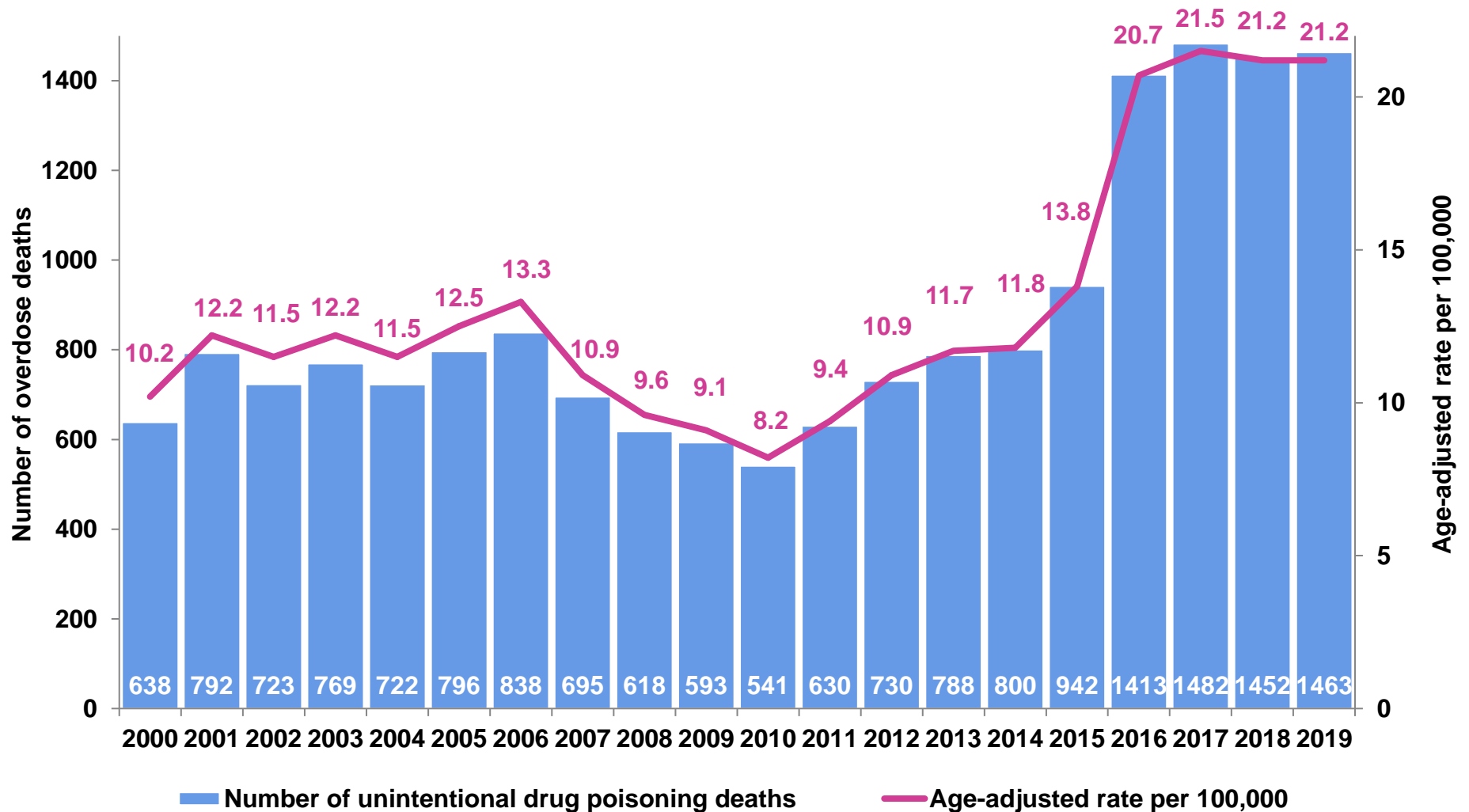
**Relay: A Peer-Delivered, Harm-Reduction Based Intervention to Address Nonfatal Opioid Overdose in NYC Emergency Departments**

**DOHMH Resources for NYC Emergency Departments Implementing Buprenorphine**

**June 17, 2021**

# 2019 PROVISIONAL DRUG OVERDOSE MORTALITY DATA

# Unintentional drug poisoning deaths, NYC, 2000-2019\*



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene 2000-2019\*  
 \*Data for 2019 are provisional and subject to change

**Every 6 hours,  
someone dies  
of a drug  
overdose in  
New York City**

# Fentanyl

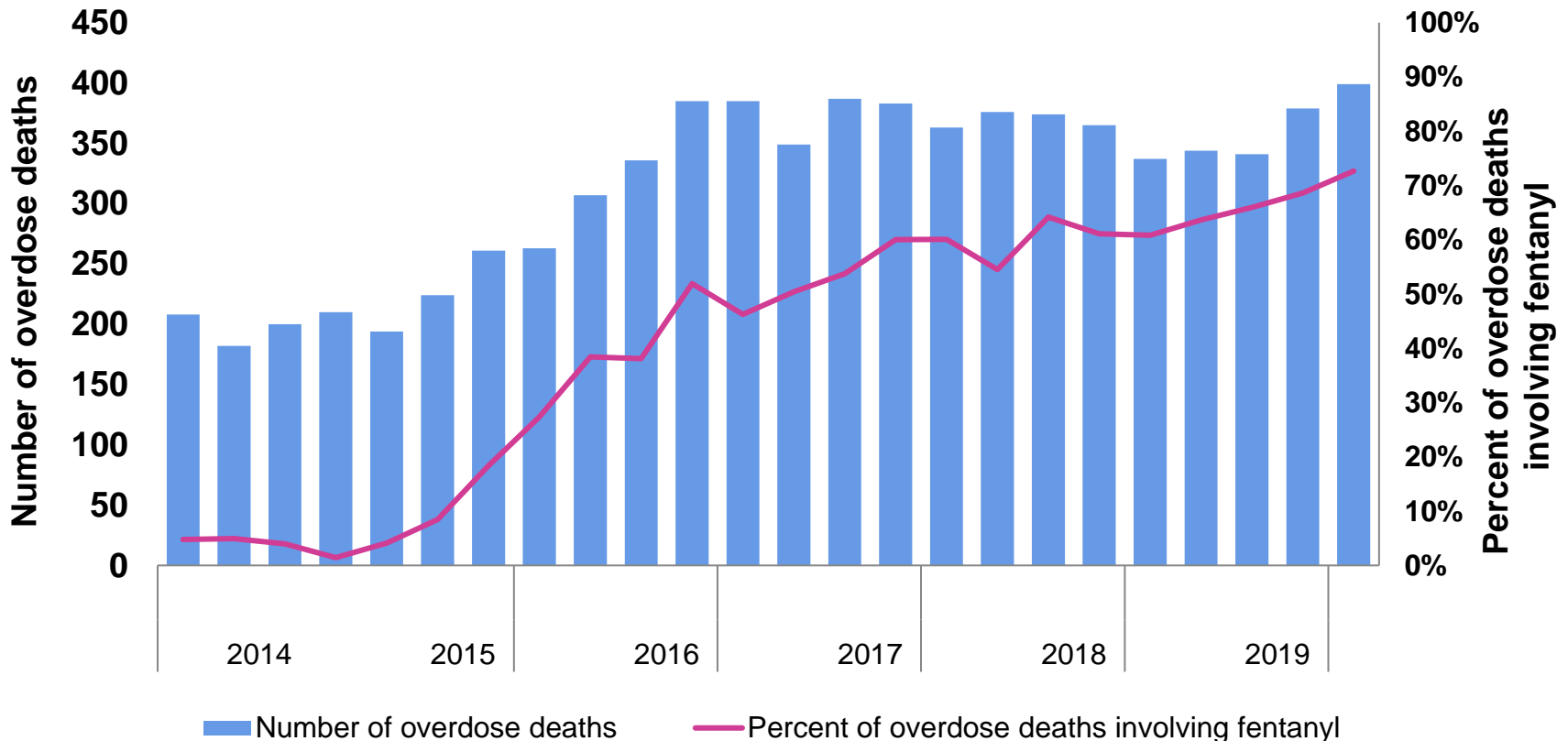
is the most common substance  
involved in drug overdose  
deaths

**68%**

Of drug overdose deaths  
involved fentanyl in 2019

# Fentanyl driving historic numbers of overdose deaths

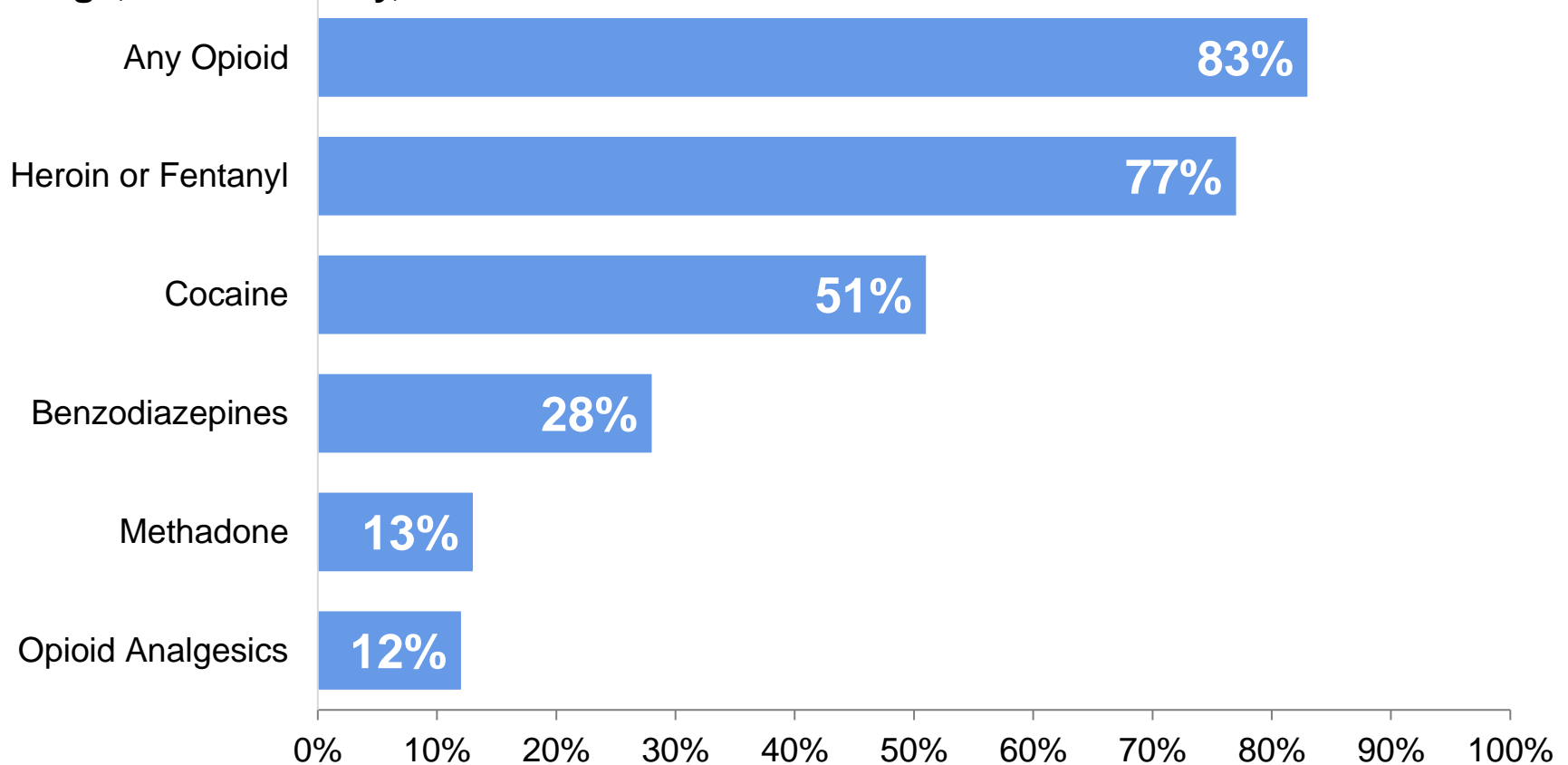
Number of unintentional drug poisoning deaths (overdoses), by quarter, New York City, 2015 - 2019



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2015-2019\*  
\*Data for 2019 are provisional and subject to change

# Heroin or fentanyl involved in nearly all opioid overdoses in 2019

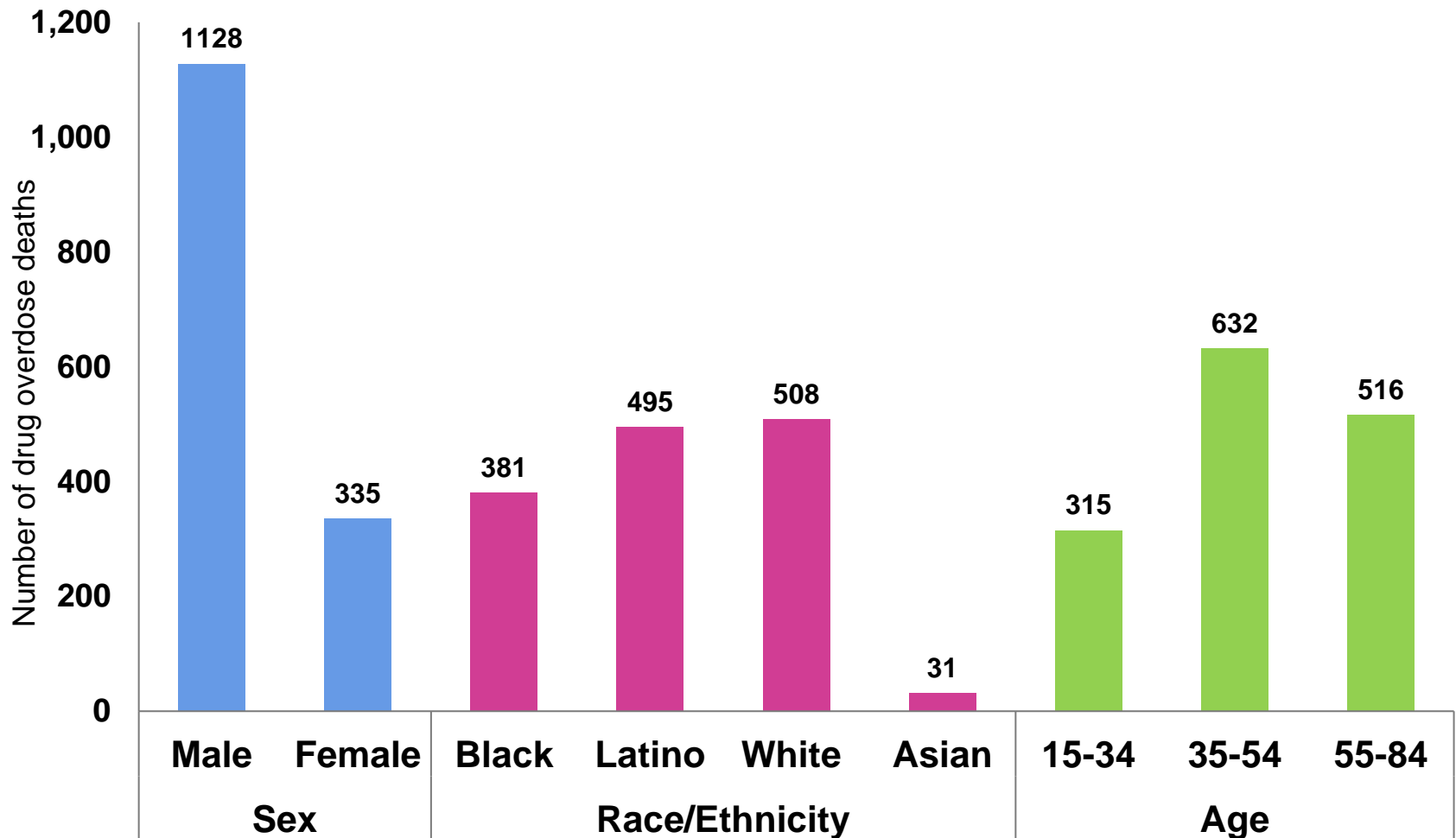
Proportion of unintentional drug overdose deaths involving select drugs, New York City, 2019\*.



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*

\*Data for 2019 are provisional and subject to change

# Number of unintentional drug poisoning (overdose), by demographics, 2019\*

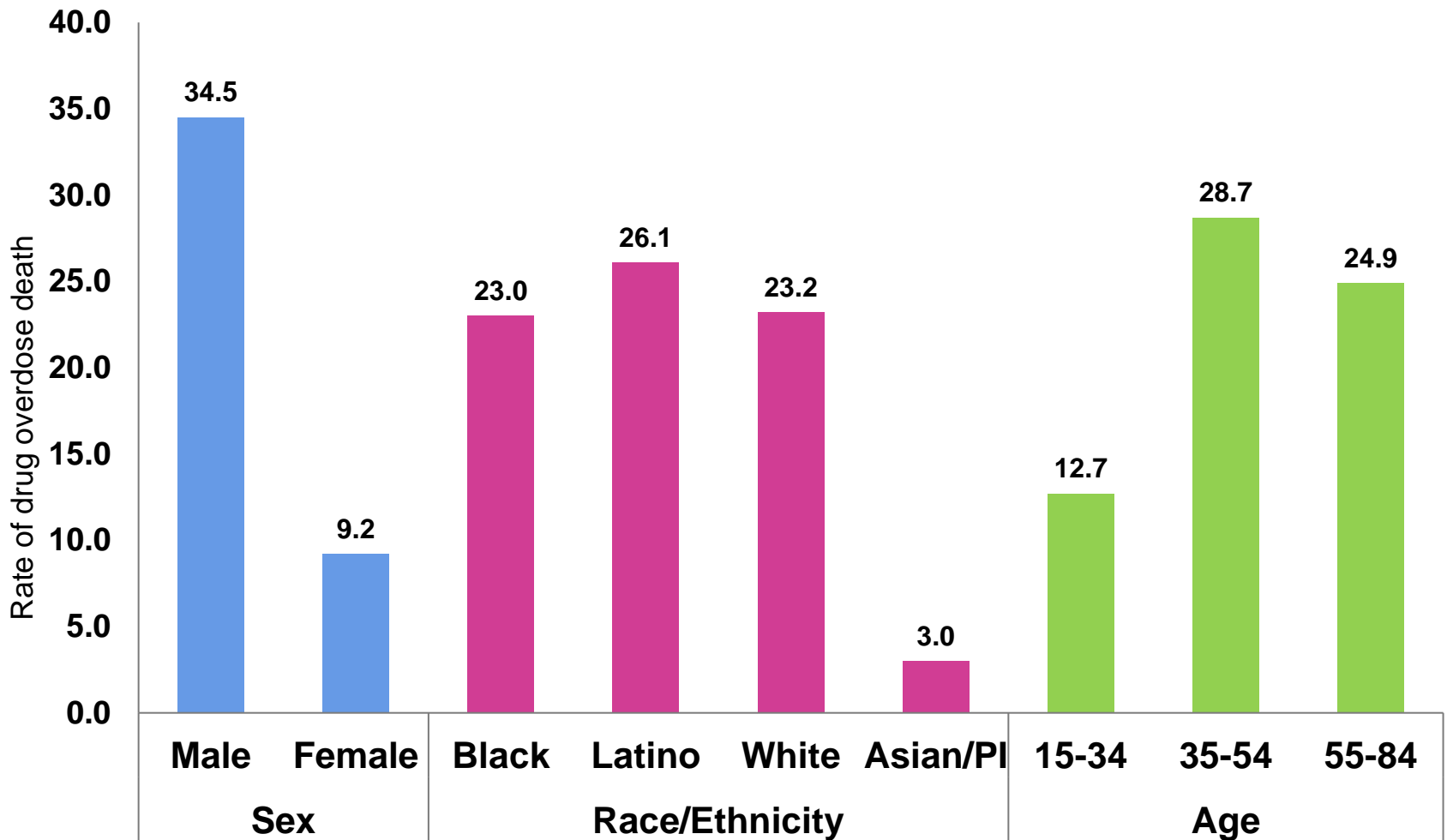


Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*

\*Data for 2019 are provisional and subject to change



# Rate of unintentional drug poisoning (overdose), by demographics, 2019\*

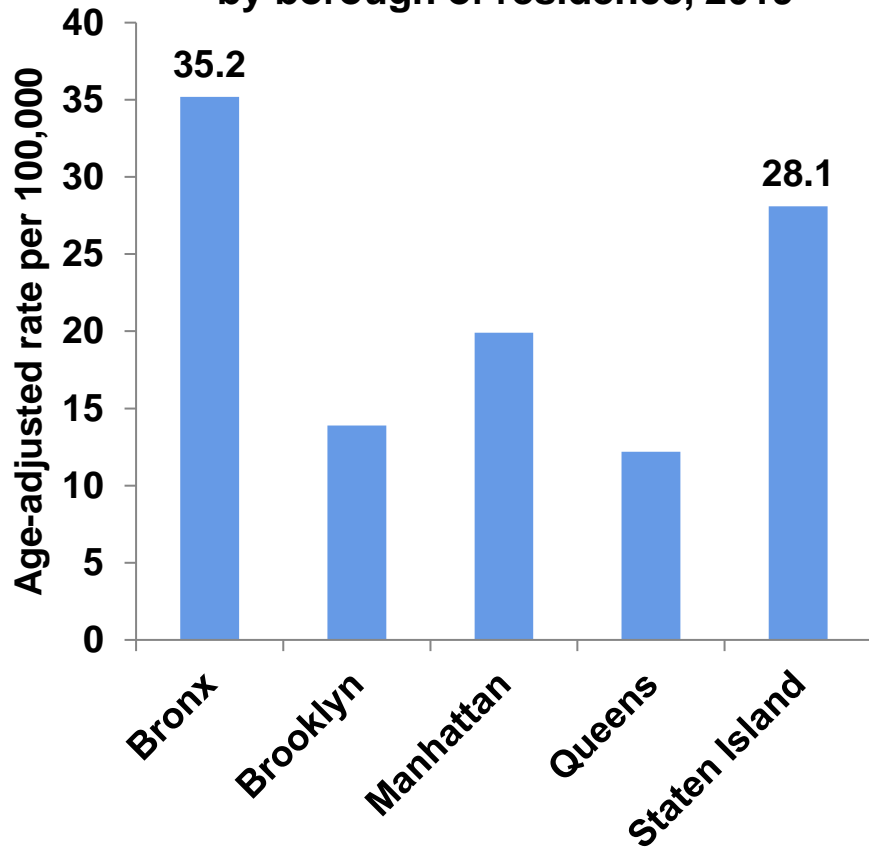


Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*

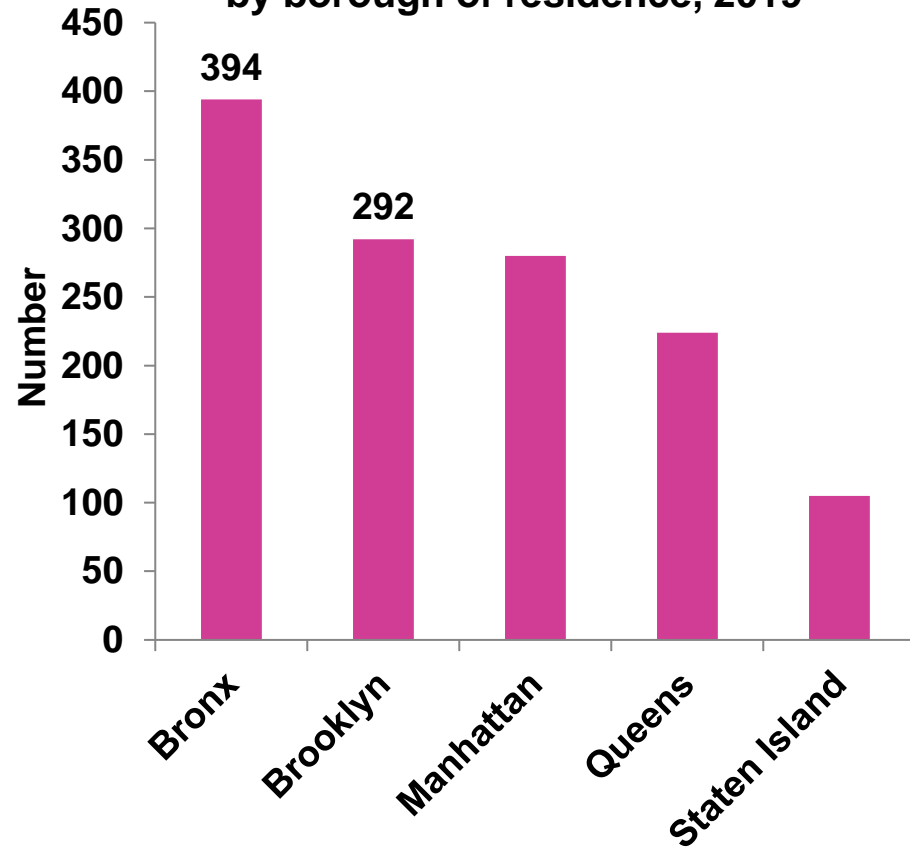
\*Data for 2019 are provisional and subject to change

# 2019: highest rate and largest number of drug overdose deaths among Bronx residents

Rate of drug overdose death, by borough of residence, 2019



Number of drug overdose deaths, by borough of residence, 2019



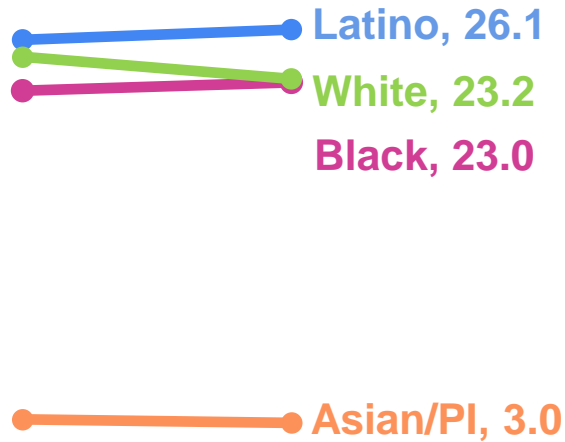
Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*

\*Data for 2019 are provisional and subject to change

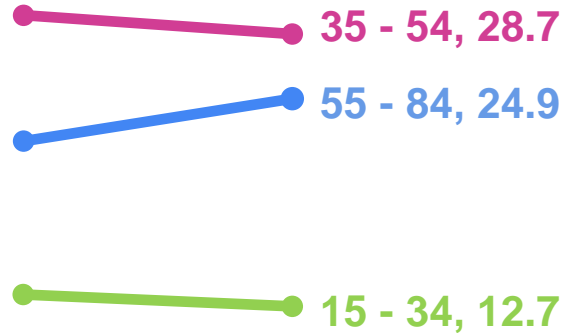
# Change in rates of drug overdose death, 2018 to 2019 (per 100,000 residents)

Large increase in rates of overdose among New Yorkers aged 55-84 from 2018 to 2019

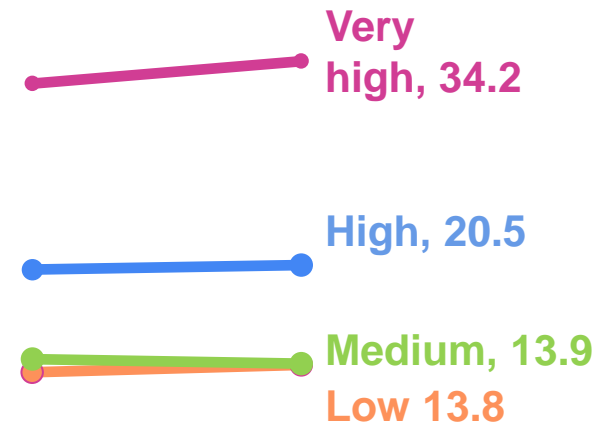
## Race/ethnicity



## Age range



## Neighborhood poverty



2018 2019

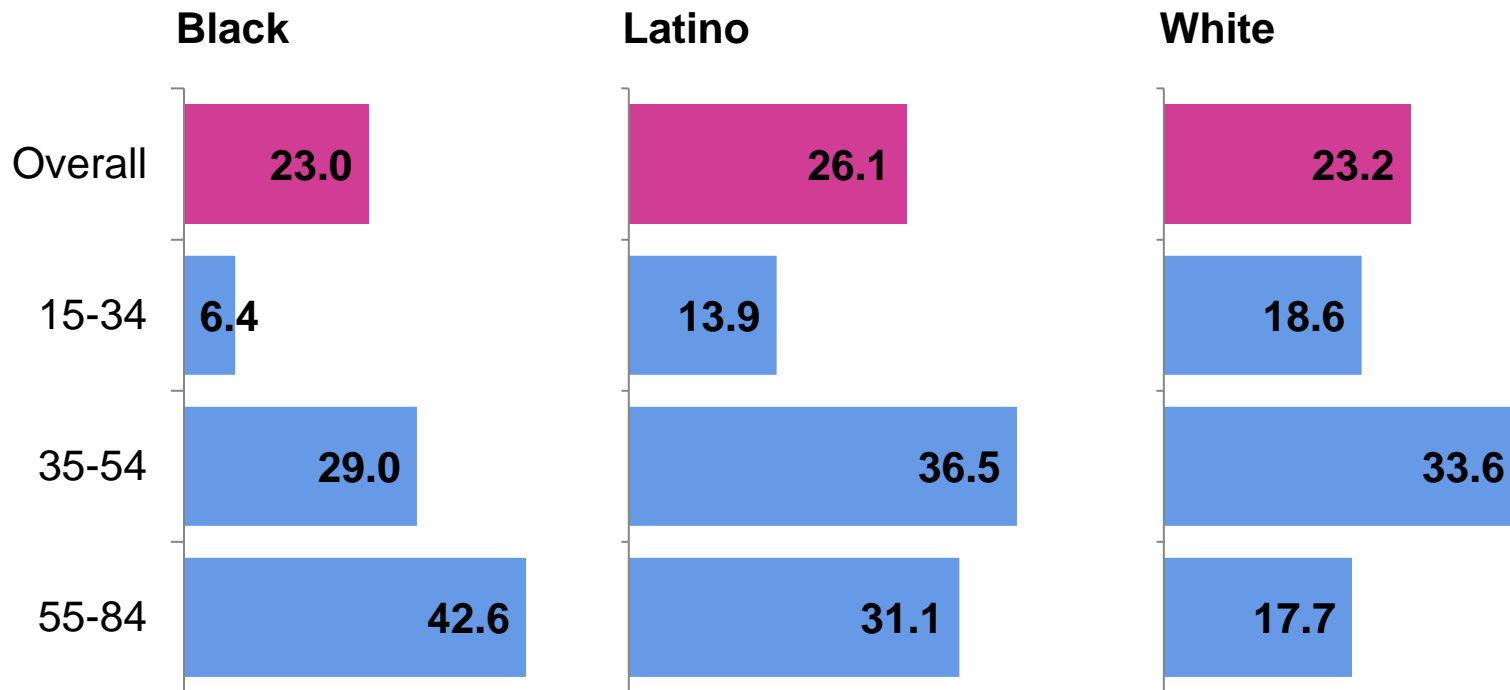
2018 2019

2018 2019

Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2018-2019\*  
\*Data for 2019 are provisional and subject to change

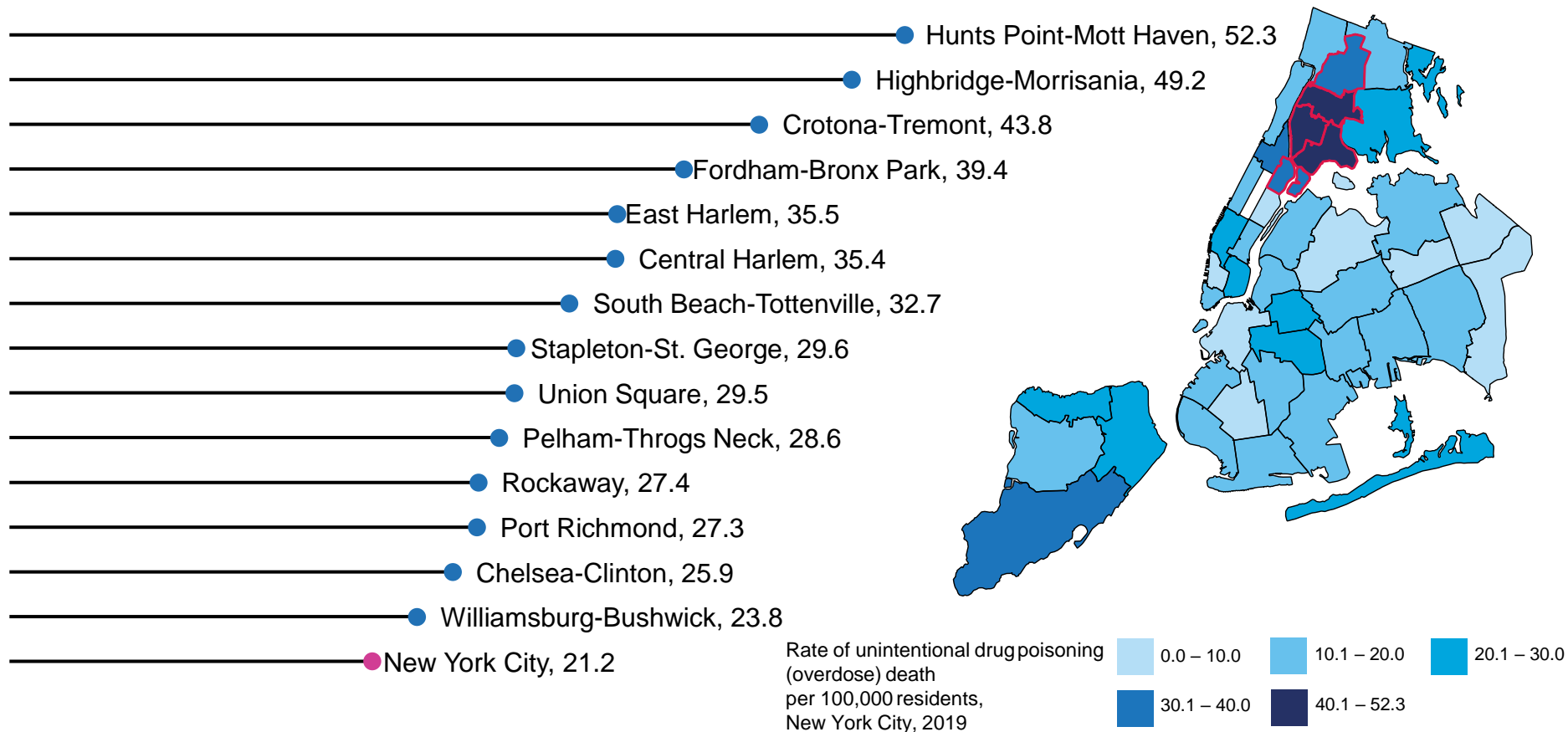
# Age-specific rates of drug overdose death vary by race/ethnicity

Rate of unintentional overdose deaths, by race/ethnicity and age group, New York City, 2019



# Rates of overdose by neighborhood of residence, New York City, 2019

## Neighborhoods with rates of overdose death exceeding the New York City average, 2019



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*  
 \*Data for 2019 are provisional and subject to change

# Disparities in the geographic distribution of overdose

Overdose rates in  
Hunts Point – Mott Haven

> **2.5x** New York City rate

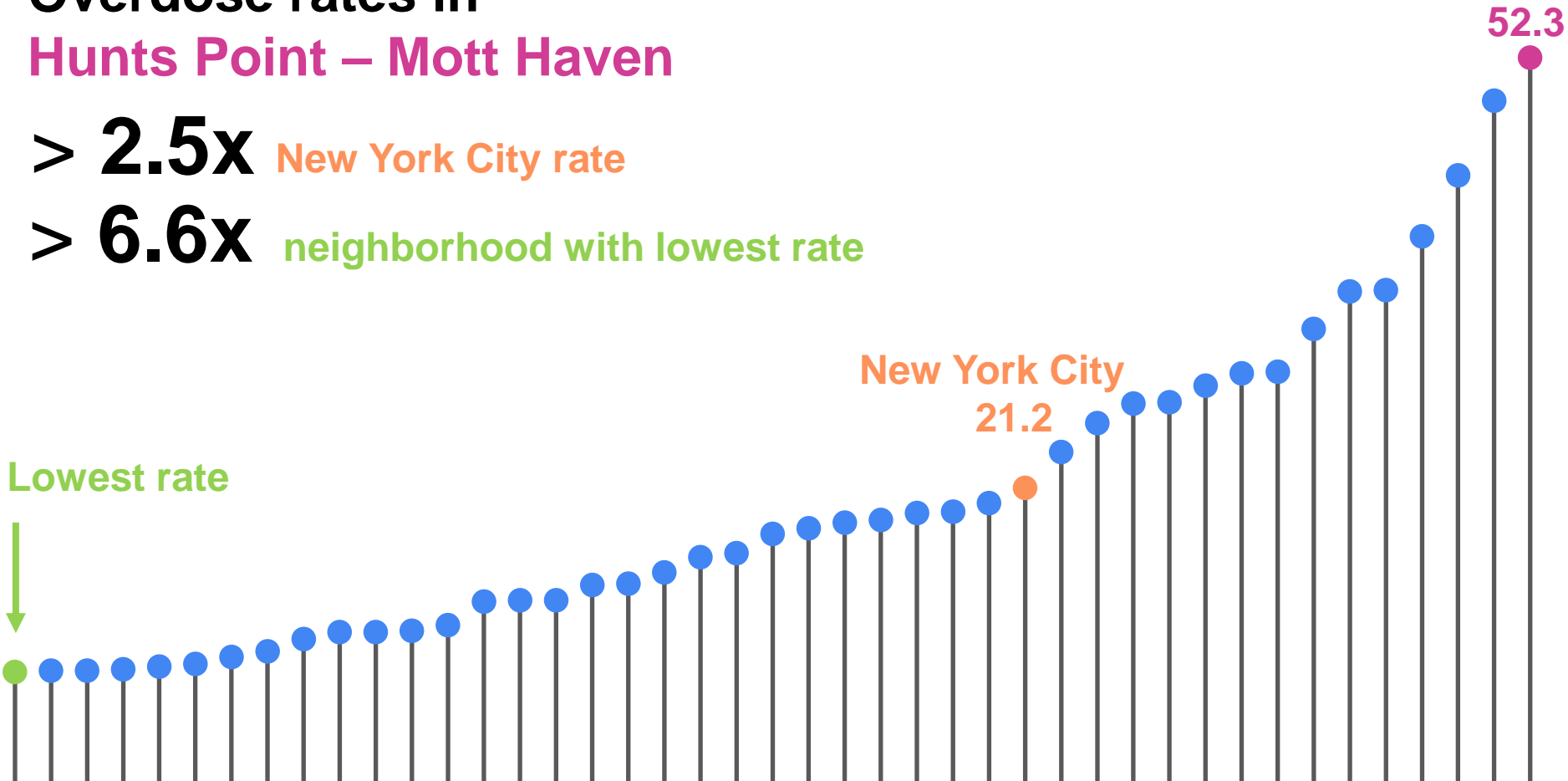
> **6.6x** neighborhood with lowest rate

Hunts Point – Mott Haven

52.3

New York City  
21.2

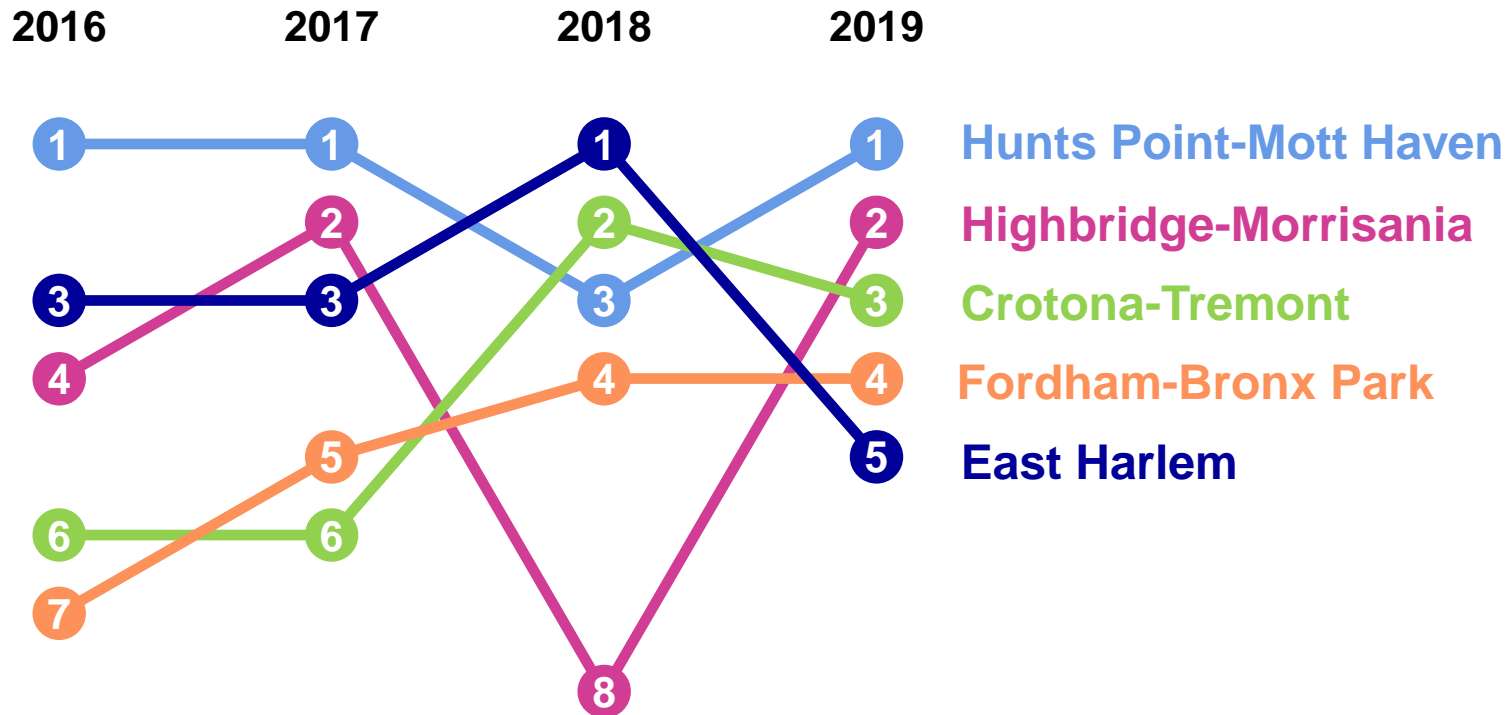
Lowest rate



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*  
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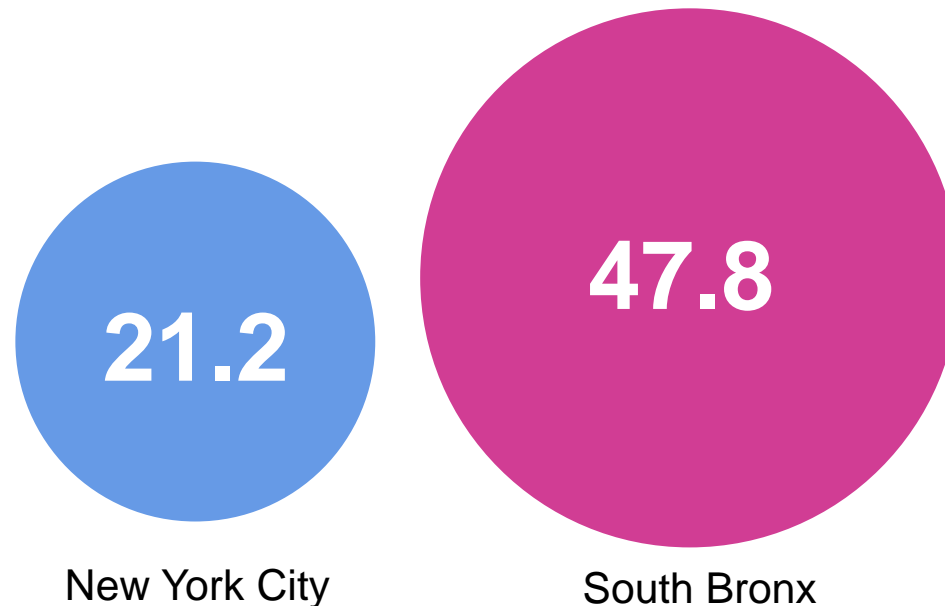
# New York City neighborhoods with the highest rates of overdose deaths in 2019 consistently ranked among the highest in prior years

Five highest neighborhoods ranked by overdose rates in 2019 and rank in prior years, 2016-2019



# South Bronx residents have among the highest rates of overdose in the country

Residents of the **South Bronx** have more than twice the rate of drug overdose death (per 100,000 residents) compared to **New York City**

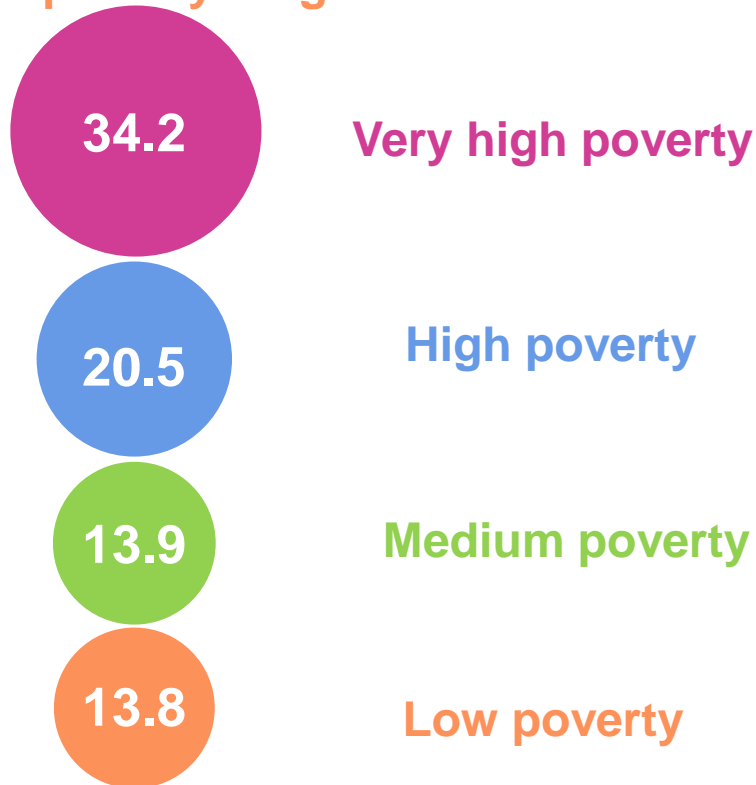


**In 2019, 207 South Bronx residents died of a drug overdose**

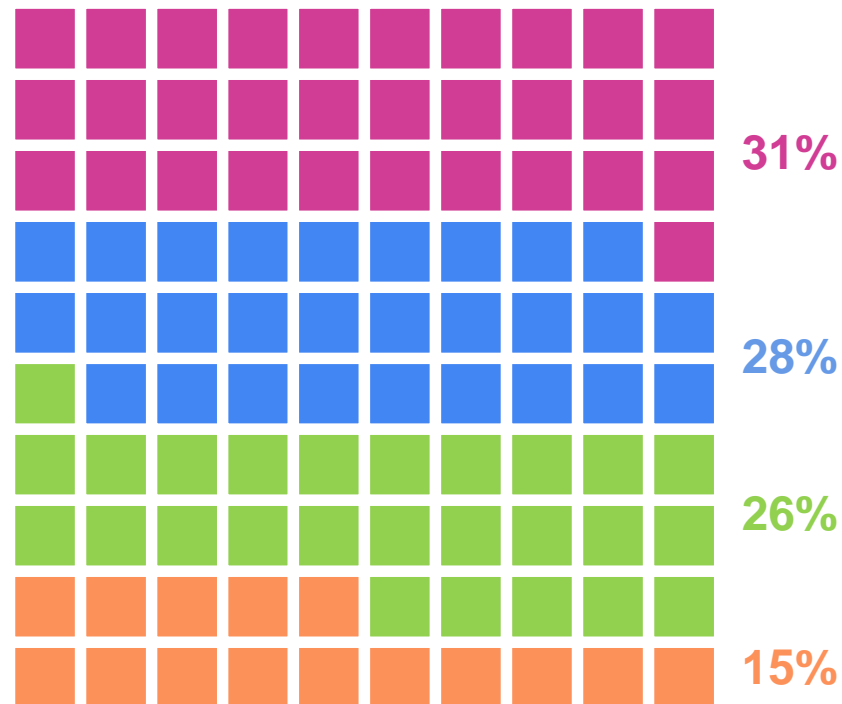


# Very high poverty neighborhoods have higher burden of overdose

Overdose fatality rates in **very high poverty neighborhoods** more than double **low poverty neighborhoods**



Residents of **very high poverty neighborhoods** account for nearly 1 out of 3 overdose deaths (among NYC residents)



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2019\*  
\*Data for 2019 are provisional and subject to change

# ***Relay***

## ***A Peer-Delivered, Harm-Reduction Based Intervention to Address Nonfatal Opioid Overdose in NYC Emergency Departments***

**Program of NYC DOHMH**

**Bureau of Alcohol and Drug Use Prevention, Care & Treatment**

Alice Welch, DrPH, MPH, RPh, Director of Relay Data and  
Evaluation

June 17, 2021

# RELAY OVERVIEW

# Relay Background

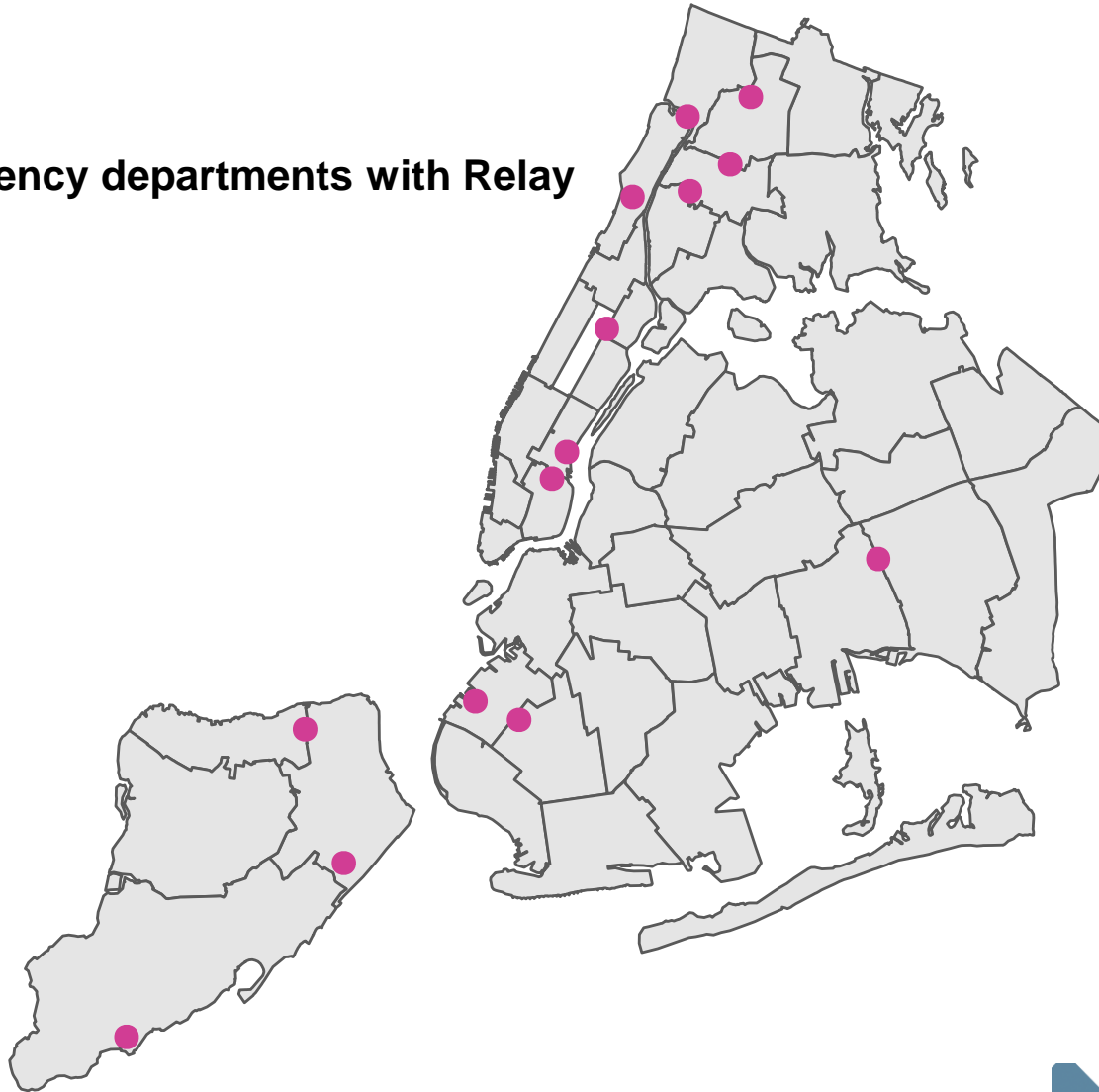
- The risk of a fatal overdose is 2-3 times greater among people who have had a nonfatal overdose than people who have not had an overdose
- Most individuals with a nonfatal overdose are transported to an ED
- EDs infrequently have standardized protocols to address patient's overdose risk
- A nonfatal overdose event is an opportunity for intervention.

# Relay overview: NYC DOHMH nonfatal overdose response system

- Hospital-based support system for patients who have experienced an opioid overdose
- Relay dispatches Wellness Advocates, trained peer advocates, to collaborating emergency departments 24/7
- Wellness Advocates engage patients in the ED, at 24-48 hours after discharge, and offer support and follow up for up to 90 days

# Current Relay hospital sites

● Emergency departments with Relay



# Why Peers?

- Federal CMS (2007) identified Peer support as an evidence-based practice
- Peers can draw from their experience with drug use to relate to patients whose needs might not be fully recognized or understood by the traditional health care workforce
- Some patients don't trust ED staff
- Able to foster trust and, as a result, patients more likely to listen to risk reduction messaging
- Results indicate shorter length of stays, decreased frequency of admissions, reduced need for behavioral health services over time

# How does Relay work?

## Step 1: ED activates Relay

- Patient with suspected opioid overdose arrives in the ED
- ED staff call notification system to request a Wellness Advocate be dispatched
- Notification system collects information on overdose



## **Step 2: Notification system dispatches the on-call Wellness Advocate**

- Each collaborating ED has a designated team of Wellness Advocates providing 24/7 support
- Notification system calls the on-call Wellness Advocate, who arrives at the ED within 60 minutes

# Step 3: Introductions



- Wellness Advocate arrives and introduces themselves to the attending physician and is briefed on the patient's status
- ED Staff initiates introduction of Wellness Advocate/patient
- Wellness advocate begins to develop rapport with patient
- Patient verbally consents to participate in Relay

# Step 4: The Engagement Process

In addition to peer support, the Wellness Advocate offers (at the time of or subsequently):

- Brief, tailored overdose risk reduction education
- Opioid overdose rescue training and naloxone distribution for patient and/or friends and family members
- Follow-up, referrals, and navigation to harm reduction, drug treatment, or other services
- Assistance with hospital navigation
- Relay care bag



## Step 5: Follow-up

- After meeting with the patient, the Wellness Advocate follows up with attending physician to collaborate with the medical team
- Within 24-48 hours of discharge, Wellness Advocate follows up with participant to discuss further how we can assist the participant in avoiding future overdoses
- Wellness Advocate continues to follow up and provide support and connection to services for up to 90 days

# 90 Days of Follow-Up

- Follow-up model based on Critical Time Intervention with follow-up period divided into 3 phases
- Intensity of follow-up outreach decreases over time with goal being to establish linkages with long term supports
- Focus on identifying goals/needs related to overdose risk reduction and connecting individuals to resources in their community to address these needs/goals

# RELAY ENGAGEMENT AND DEMOGRAPHIC DATA

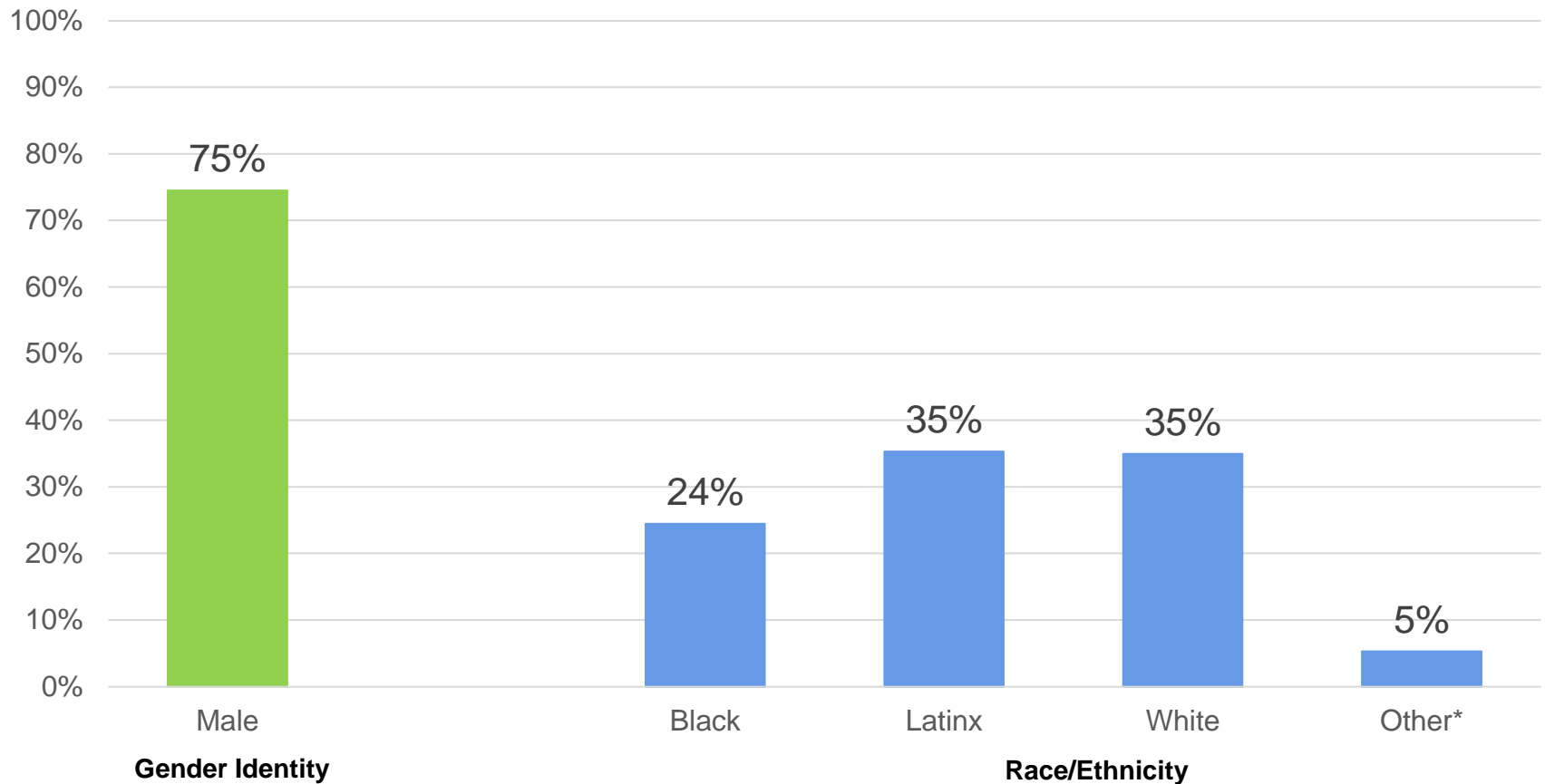
From June 1, 2017 to  
December 31, 2020,  
Relay was called  
**4,710** times for  
**3,896** unique individuals

**2,772** individuals were eligible for Relay, of whom **1,902 (69%)** accepted services



# **RELAY PARTICIPANTS: DEMOGRAPHIC CHARACTERISTICS AND HOUSING STATUS**

# Demographic characteristics of Relay Participants through December 31, 2020 (N=1,902)

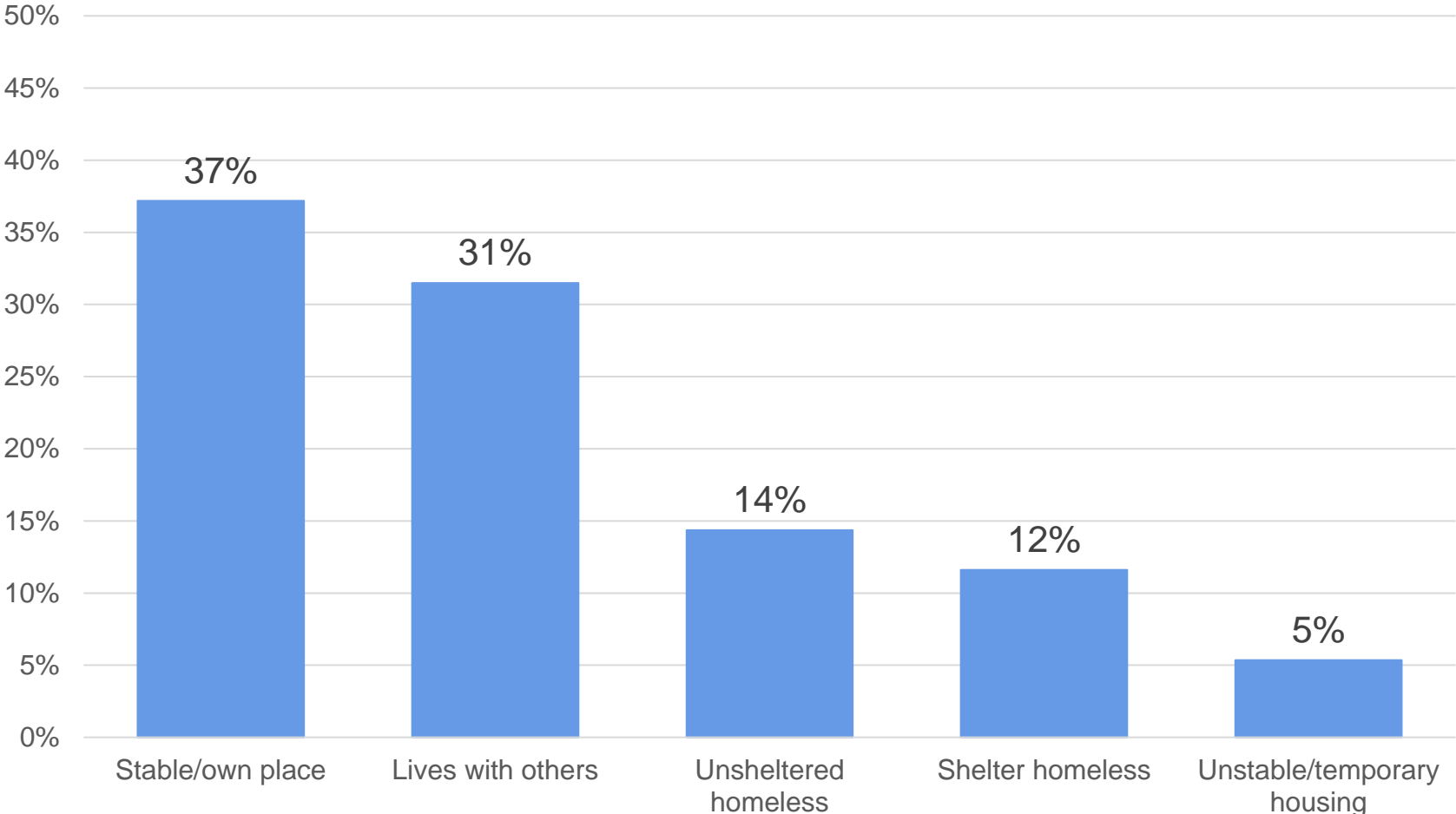


\*Other race/ethnicity includes Asian, Middle Eastern, American Indian, Native Hawaiian, and multiracial

Percentages for gender were calculated among 1,883 participants with non-missing data.

Percentages for race/ethnicity were calculated among 1,852 participants with non-missing data.

# Housing status of Relay Participants through December 31, 2020 (N=1,902)

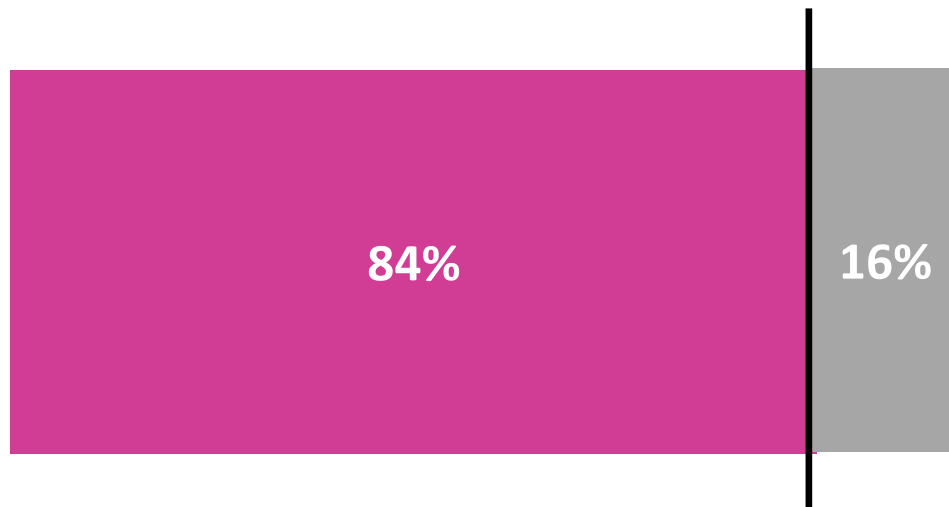


Percentages for housing status were calculated among 1,775 participants with non-missing data.



**RELAY PARTICIPANTS:  
CIRCUMSTANCES OF OVERDOSE AND  
RISK BEHAVIORS**

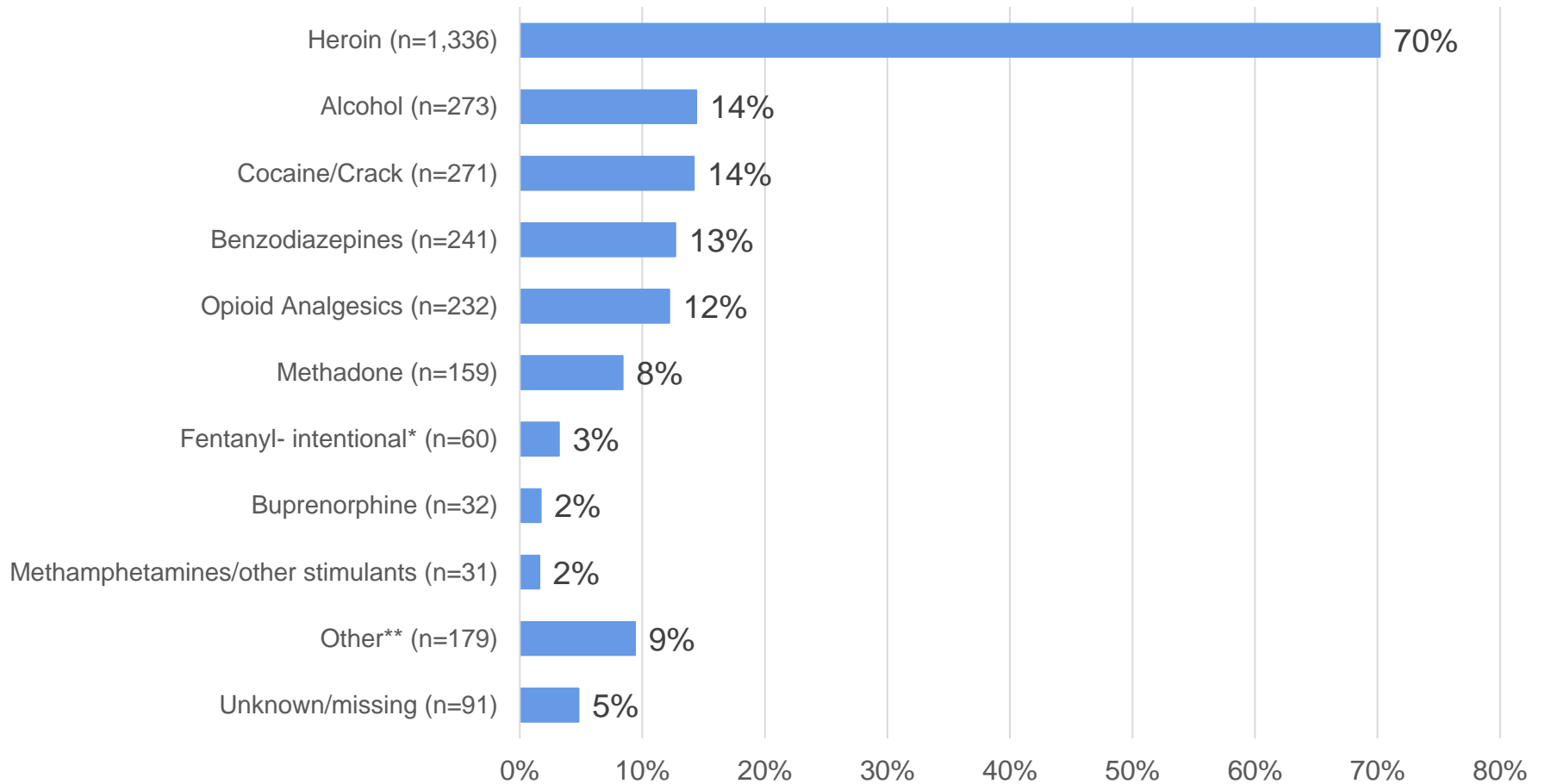
# Self-reported use of opioids prior to overdose among Relay Participants through December 31, 2020 (N=1,902)



**84%** of Relay participants reported using **opioids\*** prior to their overdose (n=1,604)

\*Opioids include heroin, opioid analgesics, methadone, and fentanyl (taken intentionally, as opposed to added without their knowledge)

# Self-reported substance(s) taken prior to overdose among Relay Participants through December 31, 2020 (N=1,902)



Participants may report  $\geq 1$  substance, so percentages may add up to  $>100\%$

\*Intentional fentanyl refers to fentanyl that the participant intended to take, as opposed to fentanyl added without their knowledge.

\*\*Other substances include cannabis, K2, PCP, GHB, and other

# Self-reported route of administration\* prior to overdose among Relay Participants through December 31, 2020 (N=1,902)

- **1 in 2** Relay participants reported **snorting** substance(s) prior to their overdose (n=989; 52%)
- **1 in 5** Relay participants reported **injecting** substance(s) prior to their overdose (n=410; 22%)

\*Participants may report  $\geq 1$  route of administration.

\*Route of administration is only asked for heroin, cocaine/crack, opioid analgesics, methadone, benzodiazepines, and methamphetamine.

# Lifetime history of overdose among Relay Participants through December 31, 2020 (N=1,902)

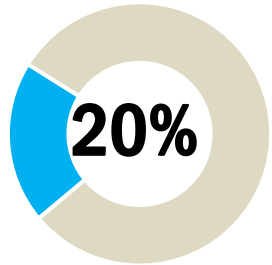


Approximately **1 in 3** Relay participants reported having ever overdosed before (n=671; 35%)

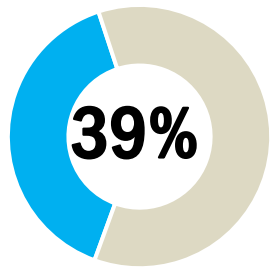
- Number of times: mean=3.5; median=2



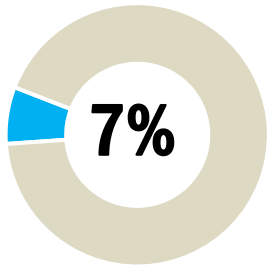
# Engagement in treatment and harm reduction services among Relay Participants through December 31, 2020 (N=1,902)



Currently prescribed MOUD\* (n=377)



Ever prescribed MOUD\* (n=750)



Current Syringe Service Program participant (n=128)

\*MOUD = Medication for Opioid Use Disorder, specifically methadone or buprenorphine

# Engagement in harm reduction services among Relay Participants through December 31, 2020 (N=1,902)



Approximately **1 in 3** Relay participants reported having ever received a naloxone kit before (n=690; 36%)

# Next Steps - Relay Evaluation

- Records matching to vital statistics, Medicaid, and hospitalization data
- Self-reported engagement in services, behavior change, and goal progress
- Randomized controlled trial comparing patients who receive Relay services to those receiving standard of care at 4 Relay EDs

# Conclusions

- Relay's individualized, patient-led approach to harm reduction
  - Was accepted over two-thirds of ED patients offered services
  - Has successfully reached individuals at risk who have not already been touched by other efforts to address the opioid crisis
    - Low proportions of participants had ever received naloxone or were engaged in treatment or harm reduction services at the time of enrollment

# DOHMH Resources for NYC Emergency Departments Implementing Buprenorphine

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917-890-3699

# **BUPRENORPHINE NURSE CARE MANAGER INITIATIVE**

# Treatment with methadone or buprenorphine reduces overdose risk compared to other treatment

- Methadone and buprenorphine are underutilized, despite being first-line treatments for OUD
- Only methadone and buprenorphine treatment were associated with reduced overdose and opioid-related morbidity
  - Methadone and buprenorphine treatment both reduced risk of overdose 3 months post-enrollment by 80% compared to no treatment
  - Other treatment modalities (e.g., outpatient counseling, inpatient detoxification/rehabilitation) had no impact compared to no treatment

# Resources

- Individual technical assistance about compliance, models, trouble-shooting specific obstacles
- Mentorship for prescribers and management
- Quarterly learning community (co-sponsored with Mt. Sinai)
- Staff trainings for nurses, peers, other staff about buprenorphine, opioid use disorder, stigma
- Buprenorphine waiver trainings
- Educational materials
- Connecting to linkage partners

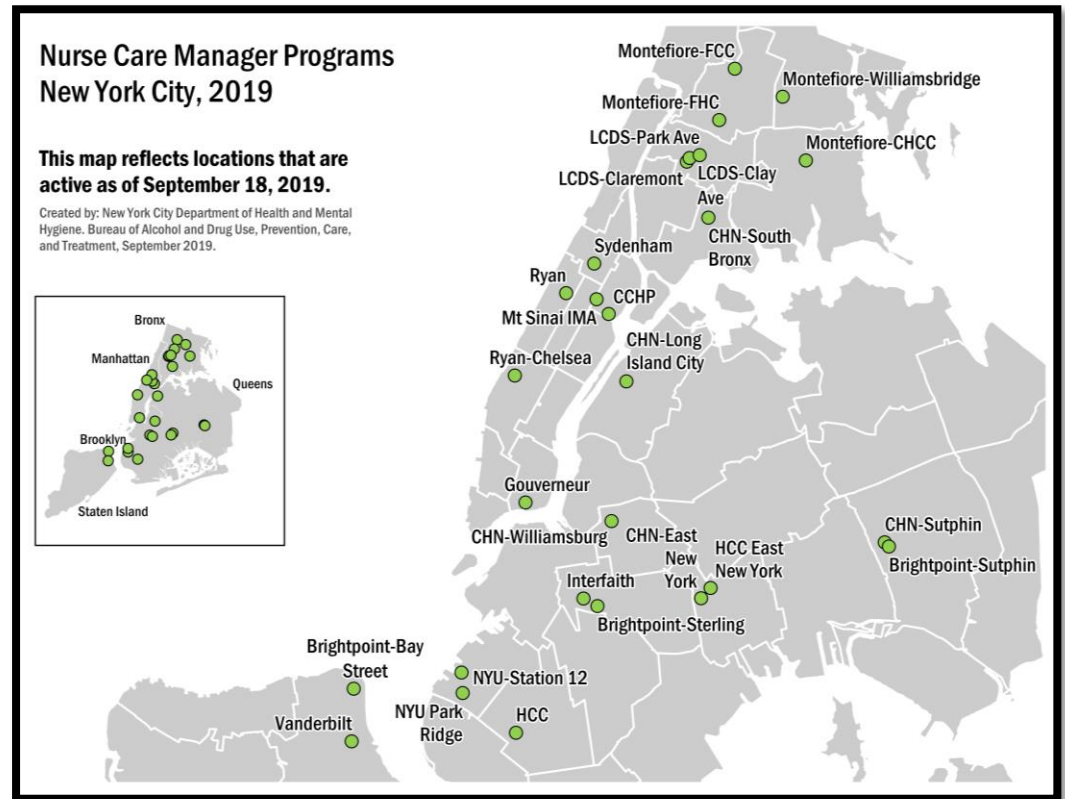


# Connections with Linkage Partners

- Primary care-based buprenorphine nurse care manager and non-nurse care manager sites
  - Information: <https://www1.nyc.gov/site/doh/health/health-topics/opioid-treatment-medication.page> under “How to Find Treatment”
- 9 Syringe service programs (SSP) providing buprenorphine treatment
  - Accept referrals, have varying capacity
  - All SSPs can provide other harm reduction services
- Substance use disorder treatment programs (including opioid treatment programs)

# Buprenorphine Nurse Care Manager Locations

- Primary-care based buprenorphine treatment, with an RN dedicated to managing patient care
- All NCM sites take Medicaid and offer a sliding payment scale; some offer medication payment assistance
- Some sites have 340B pharmacies
- All NCM sites are accepting patients
- NCM sites are interested in establishing linkages with community partners
- For contact/referral information: <https://www1.nyc.gov/site/doh/health/health-topics/opioid-treatment-medication.page> under “How to Find Treatment”



# Questions?

