

**Multi-pronged approaches to reducing the health consequences of opioid use, New York City**

Northeast Epidemiology Conference

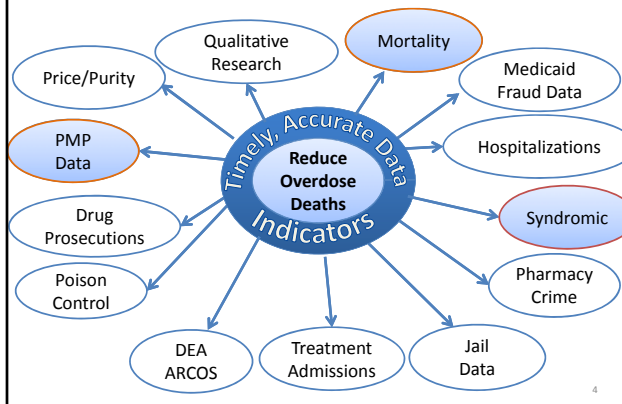
**What is the strategy?**

- Public health approach
  - Track drug use and associated health consequences at a population level
- Comprehensive and timely surveillance
- Develop data-driven initiatives
- Impact is measurable

**Public health surveillance framework**

- **Prevalence** – who, what, where
- **Morbidity** – who, what, where
- **Mortality**- who, what, where
- **Qualitative** – how and why

**Data Sources**



## PRESCRIPTION MONITORING PROGRAM

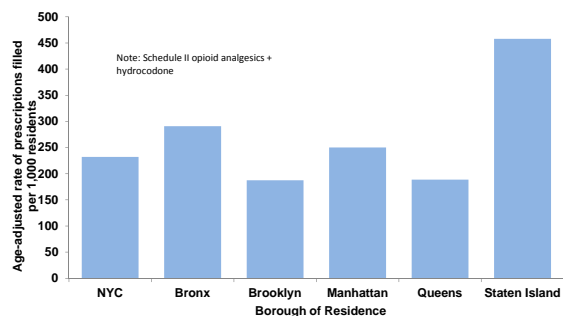
### PMP for public health surveillance

- To understand population level prescription use trends over time
  - Historically, used as law enforcement tool
  - NYC DOHMH developed key indicators to evaluate data using the PMP
- To inform data-driven initiatives

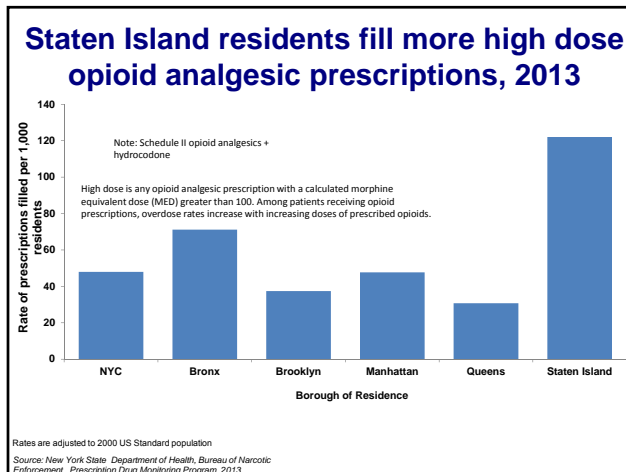
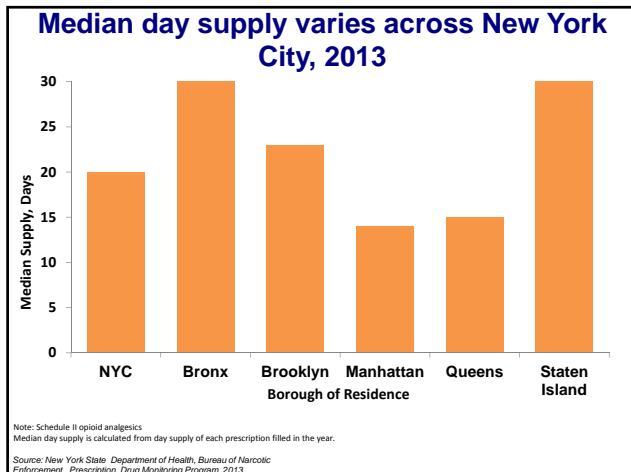
### Key public health PMP indicators

- Number of prescriptions, patients, prescriber, pharmacies
- Rate of opioid analgesic prescriptions filled overall and by drug type
- Median day supply
- Rate of patients filling opioid analgesic prescriptions
- Rate of high dose opioid analgesic prescriptions filled

### Rate of opioid analgesic prescriptions filled by borough of residence, 2013



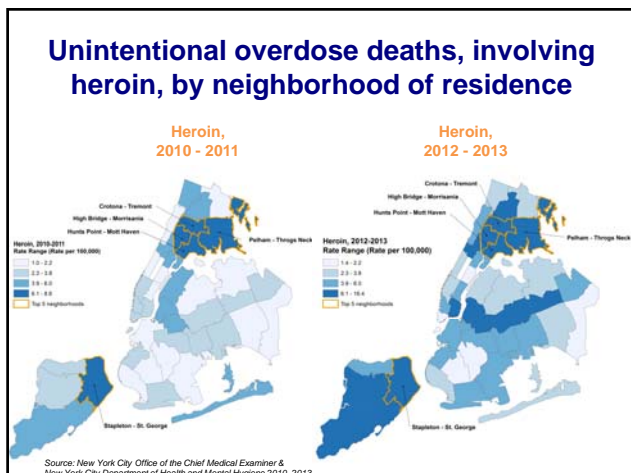
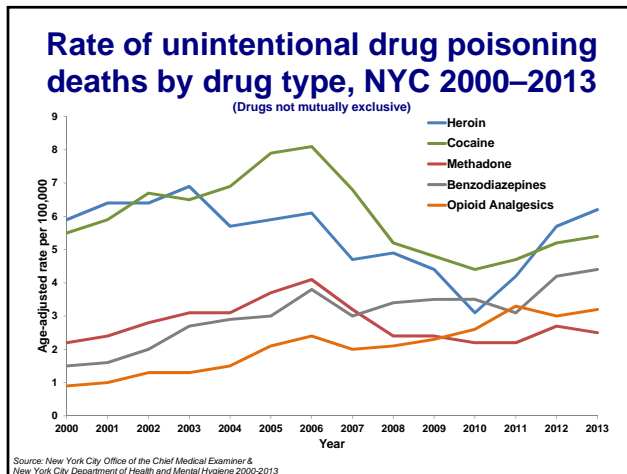
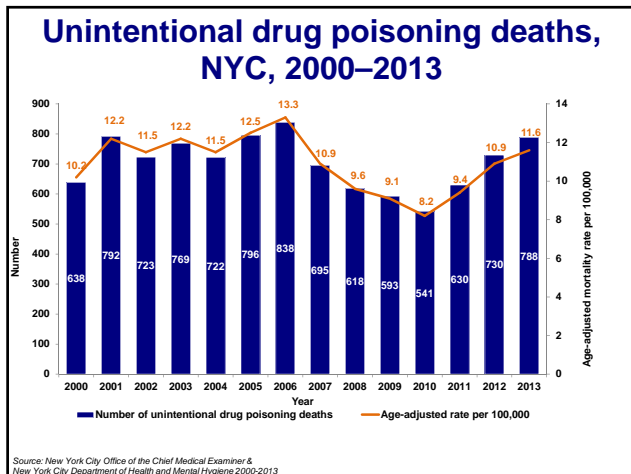
Rates are adjusted to 2000 US Standard population  
 Source: New York State Department of Health, Bureau of Narcotic Enforcement, Prescription Drug Monitoring Program, 2012 and 2013



**MORTALITY**

### Timely mortality data

- NYC receives mortality data monthly and reports data quarterly
- Prior to 2013 data was received annually and reported with a 1.5 year lag
- NYC published preliminary 2013 mortality data in July 2014
  - Time lag for the CDC is currently > 1 year



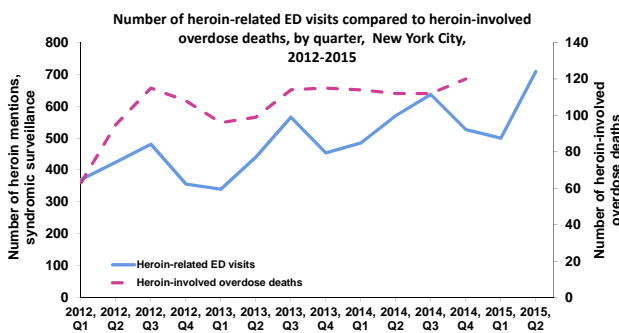
**DRUG-RELATED SYNDROMIC SURVEILLANCE**

## Syndromic surveillance

- An early warning system
- NYC receives data daily from 51 emergency department
- Emergency department visits are classified into “syndromes” based on chief complaint
- Syndromes are compared to baseline data to identify changing trends

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## Syndromic data predictive of mortality trends



Source: New York City Department of Health & Mental Hygiene Office of Vital Statistics, Syndromic Surveillance System

## Timely nature of syndromic data used to guide public health responses

- Rapid assessment
  - Can include chart review, qualitative interviews, short surveys
- Rapid response
  - Engaging community stakeholders, strategic naloxone deployment, development of educational materials, etc.

## CASE STUDY: DATA DRIVEN INITIATIVES

### **Fentanyl and heroin-involved overdoses**

- 2014: Mid-Atlantic and Northeast states reported an increase in the number of overdoses related to heroin containing fentanyl
- February, 2014: Mass media coverage of heroin following the death of a public figure in New York City
  - Concern that fentanyl-involved overdose deaths would increase in NYC

### **What would you do?**

### **Multi-agency response**

- NYC Department of Health and Mental Hygiene (DOHMH) developed list of questions for existing datasets
- Multi-agency conference calls led by DOHMH
  - Medical examiner, NYPD, DEA, Manhattan DA office, NY/NJ HIDTA, Special Narcotics Prosecutor, Mayor's Office

### **Investigation findings**

- Public health
  - Medical Examiner
    - No increase in the number of overdose cases
    - Retrospectively tested all heroin deaths for fentanyl for the month of January
  - Syndromic surveillance
    - No detectable increase in the number of emergency department visits for overdose
  - Poison Control data
    - No increase in the number of consultations for heroin or fentanyl

### **Investigation findings**

- **Public safety**
  - NYPD and DEA labs
    - No reported increase heroin samples tested containing fentanyl
- **Community**
  - Syringe Exchange Programs
    - No reported increase in fatal or non fatal overdoses

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### **Data-driven response**

- NYC DOHMH released two advisories regarding cases of fentanyl-associated overdoses in Mid-Atlantic and Northeast United States (2014)
  - A Health Alert Network letter for clinicians
  - A “Dear Colleague” letter for community program staff working with drug users
- Continued public health and public safety surveillance

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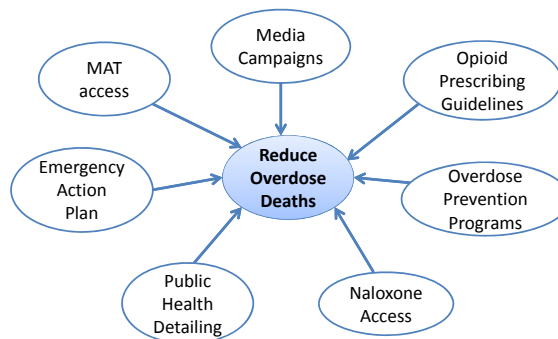
### **Public safety response**

- Included aggressive investigation of decedent’s dealer and subsequent arrest
- Discussed importance of routinely testing product and sharing results, including purity

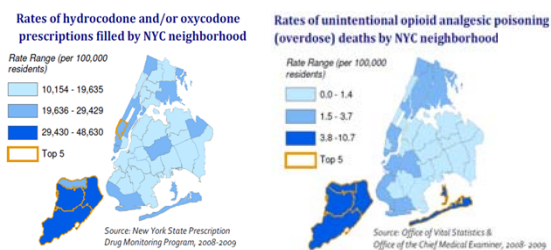
### **How have others responded to similar events?**

## DATA-DRIVEN INITIATIVES

## Data-driven initiatives



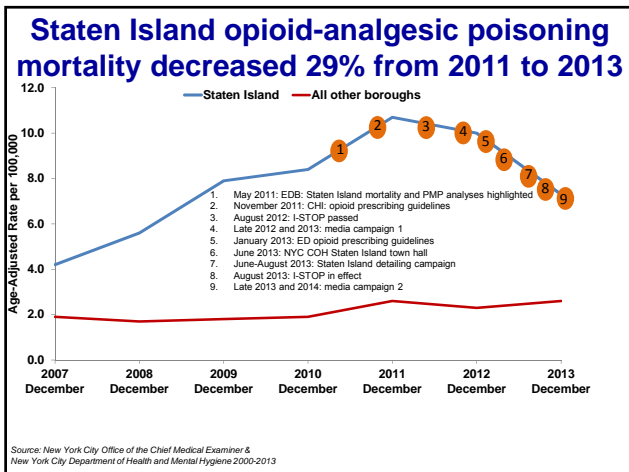
## Opioid analgesics: A public health crisis in New York City



\*Paone D, Bradley O'Brien D, Shah S, Heller D. Opioid analgesics in New York City: misuse, morbidity and mortality update. Epi Data Brief. April 2011. Available at [http://www.nyc.gov/html/doh/downloads/gen/epi\\_data\\_brief\\_2011.pdf](http://www.nyc.gov/html/doh/downloads/gen/epi_data_brief_2011.pdf).

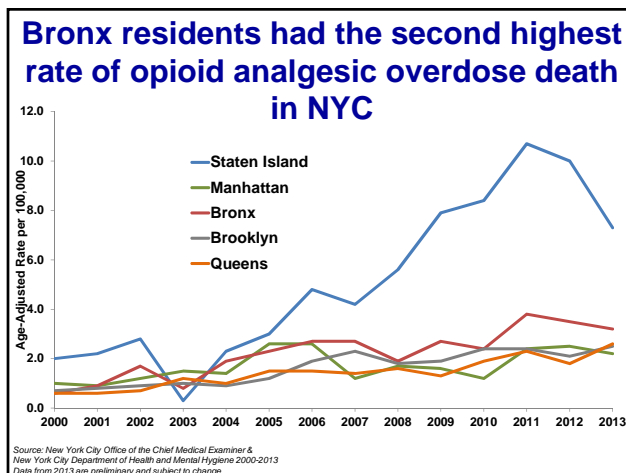
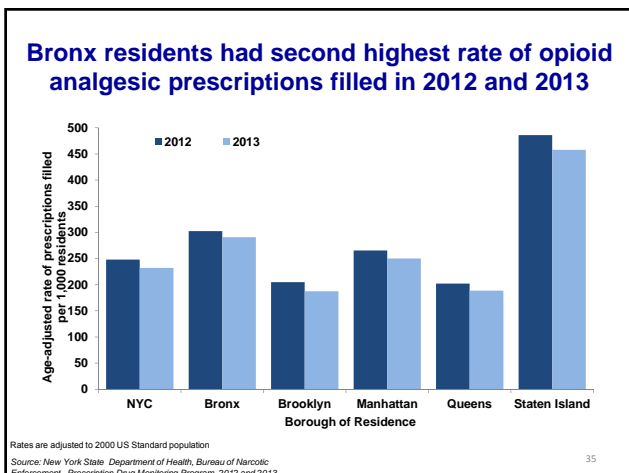
## Multi-pronged approach to reducing opioid analgesic involved mortality





## Judicious Opioid Prescribing Public Health Detailing Campaign, Bronx NY

October 1, 2015  
Marissa Kaplan-Dobbs, MPH



## Judicious Opioid Prescribing Public Health Detailing Campaign

- Modeled after pharmaceutical sales approach
- Effective in changing clinical practice behavior
- “Sell” or promote key recommendations focusing on safe and judicious prescribing
- 8 week campaign (Spring 2015); 2 visits per contact
- Brief, 1:1 interactions with providers and staff
- Provide key messages, clinical tools, patient materials
- Evaluation: knowledge assessment at beginning of 1<sup>st</sup> and 2<sup>nd</sup> visit

## Seven steps of a detailing visit

1. Introductions
2. Framing the issue
3. Survey questions
4. Stating recommendations
5. Promoting materials in kit
6. Handling objections
7. Gaining a commitment

## Key campaign messages

**City Health Information**  
November 2015 • [View this information on desktop or tablet devices](#) | [PDF](#) | [Share](#)

**PREVENTING MISUSE OF PRESCRIPTION OPIOID DRUGS**

- **Prescription opioids are not pain relievers.** They are addictive and can cause overdose and death. Prescribing opioids should be limited to short-term use for severe pain.
- **For acute pain, non-opioid pain relievers are usually sufficient.**
- **For chronic pain, non-opioid pain relievers are usually sufficient.**
- **For chronic pain, if opioids are necessary, use the lowest effective dose for the shortest duration possible.**
- **For chronic pain, if opioids are necessary, use the lowest effective dose for the shortest duration possible.**

**WHEN TO CONSIDER ADDING ORAL OPIOID ANALGESICS TO YOUR PATIENT'S TREATMENT PLAN**

When to consider adding oral opioid analgesics to your patient's treatment plan:

- When the patient has severe pain that is not controlled by non-opioid analgesics.
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- When opioids are warranted, a three-day supply is usually sufficient.
- Avoid prescribing opioids to patients taking benzodiazepines whenever possible.
- Use  $\geq 100$  MME as a threshold for caution and thorough patient reassessment.

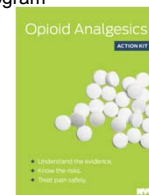
## Action kit highlights

### Provider information

- National and local data about opioid analgesic epidemic
- Prescribing guidelines
- OpioidCalc
- New York State Prescription Monitoring Program
- Substance use disorder treatment referral
- Naloxone

### Patient information

- Posters
- Brochures





### Detailing campaign increased prescriber knowledge

Recommendation	Initial Visit % Correct (n/N)	Follow-up Visit % Correct (n/N)
3-day supply for acute pain	50% (484/972)	75% (611/814)
Concern co-prescribing with benzodiazepines	94% (910/972)	97% (789/814)
100 MME = DOHMH threshold for reassessment	9% (90/972)	62% (503/814)

### Conclusions

- Public health detailing campaign reached nearly 1000 Bronx health care providers in specialties that prescribe the most OAs
- Campaign well-received
- Campaign changed health care provider knowledge about opioid prescribing
- Other jurisdictions might consider public health detailing on opioid analgesics

### Buprenorphine: A Clinical and Public Health Strategy to Prevent Opioid Overdose

Jessica Kattan, MD, MPH  
10/1/15

### Overview of medication-assisted treatment for opioid use disorder (addiction)

- Medications are the most effective treatment for opioid use disorder
- Gold standard medications:
  - Methadone
    - Can only be prescribed in addiction settings
  - Buprenorphine
    - Can be prescribed by general physicians or specialists in office-based setting

### How does buprenorphine work?

- Partial opioid agonist
  - Attaches to same receptors in the brain as other opioids (e.g., opioid analgesics, heroin, methadone), blocking their effects and preventing withdrawal symptoms
  - Ceiling to side effects, including respiratory depression
- Produces only weak morphine-like effects, without the high triggered by full opioid agonists
- Long-acting and blocks the effects of any opioids taken after its administration
- Available in tablet or film formulation

### Effectiveness

- Demonstrated in multiple studies to be effective treatment for opioid use disorder
- Reduces
  - Opioid use
  - Mortality
- May also reduce risk of HIV infection

### How long should a person take buprenorphine?

- Every person is different → depends on individual
- Better outcomes with longer treatment
- Diabetes treatment analogy

### What about misuse and diversion of buprenorphine?

- Risk of misuse is lower with buprenorphine than with full opioid agonists
  - Not drug of choice to get high
  - Long-acting with ceiling effect → limits euphoria
  - Naloxone included in Suboxone formulation to deter injection®
- Most common reasons for buprenorphine misuse:
  - Self-treatment of withdrawal symptoms
  - Lack of access to treatment

## Barriers to access/utilization

- Prescribing restrictions
  - Only MDs and DO
  - 8-hour training
  - Limits on number of patients
- Lack of physician familiarity
- Lack of physician time to manage and coordinate care
- Prior authorizations
- Stigma

## Health Department strategy to increase access

- Programs to increase local prescribing capacity
  - Provide technical assistance to health centers
  - RFP for nurse care manager model
- Work with other governmental agencies on policy development
- Materials for health care providers and patients
- Messaging to decrease stigma

## Buprenorphine CHI



### City Health Information

Volume 34 (2015) The New York City Department of Health and Mental Hygiene No. 1; 1-8

#### BUPRENORPHINE—AN OFFICE-BASED TREATMENT FOR OPIOID USE DISORDER

- Buprenorphine treatment is a life-saving tool for patients with opioid use disorder.
- Learn to recognize opioid use disorder and recommend effective treatment.
- Incorporate buprenorphine treatment into your practice.

## Summary

- Buprenorphine is a key NYC DOHMH strategy to reduce risk of opioid overdose
- Buprenorphine is effective
  - Reduces opioid use and mortality
- Buprenorphine is safe
  - Ceiling effect→ difficult to overdose
- Can be prescribed by physicians in office-based settings
- Barriers exist
- NYC DOHMH is actively working to increase access
- Other jurisdictions should include expanding access to buprenorphine as a strategy to reduce opioid overdose

**DISCUSSION**