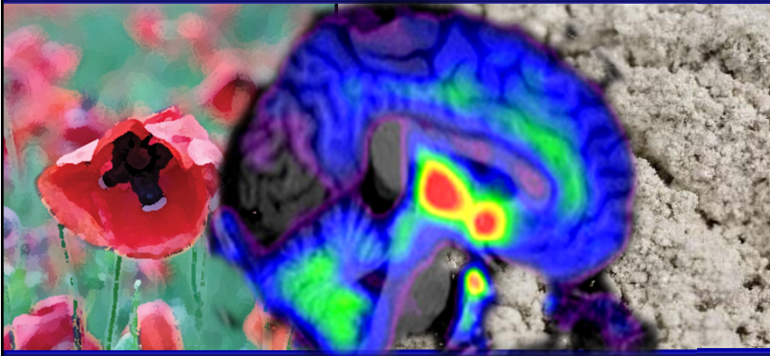


Intersecting Epidemics of *Prescription Opioids and Heroin*



**USA 2013
Overdose Deaths:**

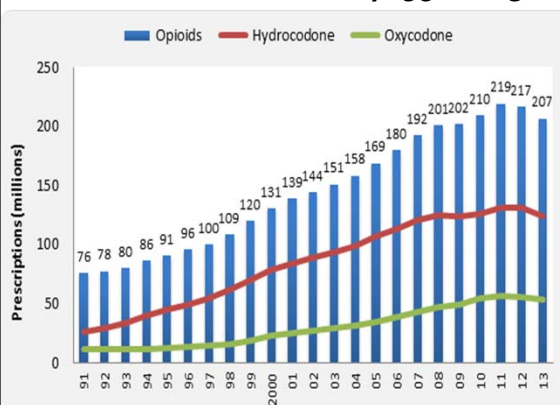
- 43,982 Any Drug
- 16,235 Rx opioid
- 8,257 Heroin

Wilson M. Compton, M.D., M.P.E.
Deputy Director
National Institute on Drug Abuse



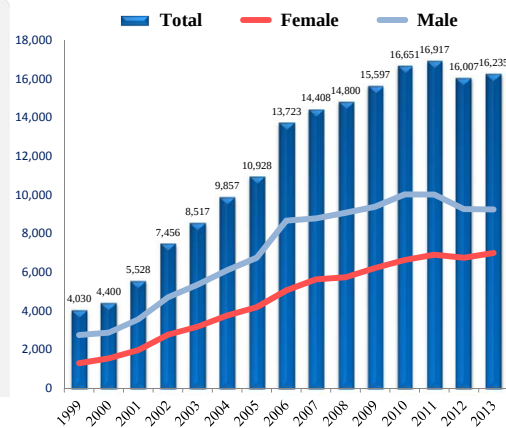
High Levels of Opioid Prescriptions have Facilitated Diversion & Contributed to Overdose Deaths

**Near Tripling of Opioid Prescriptions from
U.S. Retail Pharmacies, 1991-2013**



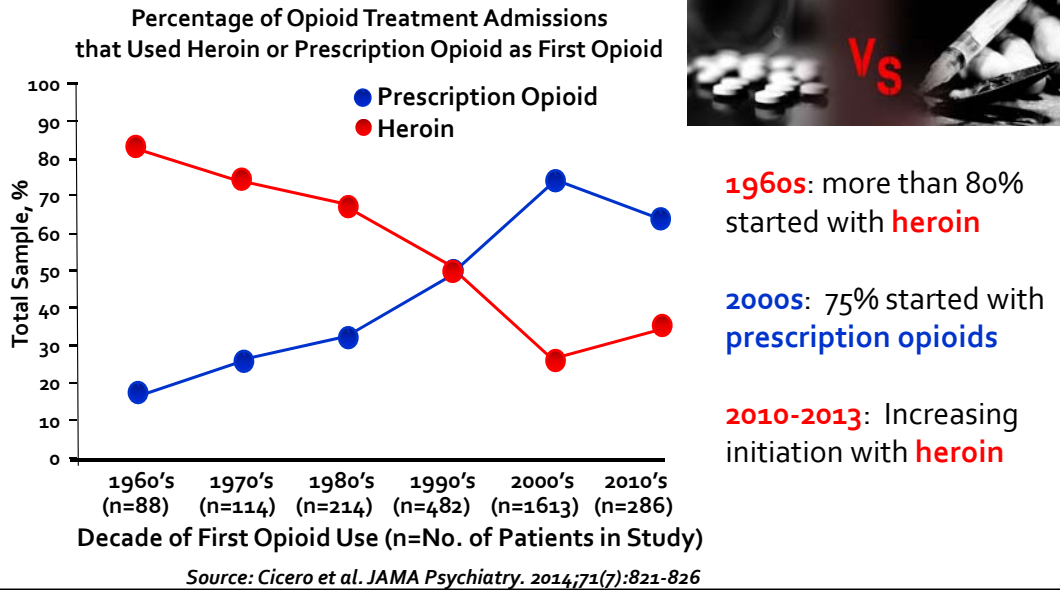
IMS Health, Vector One®: National, 1991-2011
IMS Health, National Prescription Audit, 2012-2013

**4x Increase in Rx Opioid
Overdose Deaths**

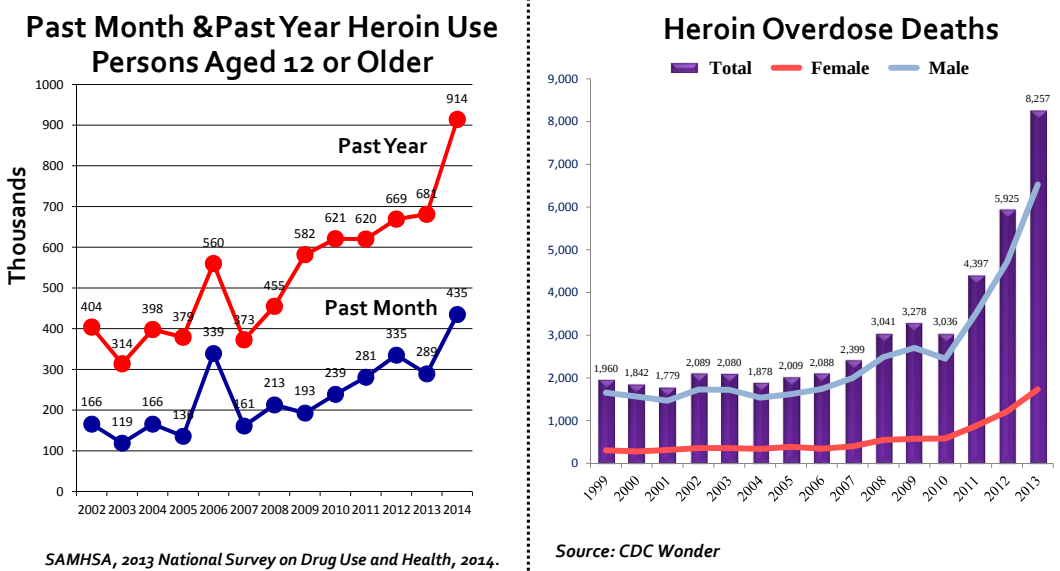


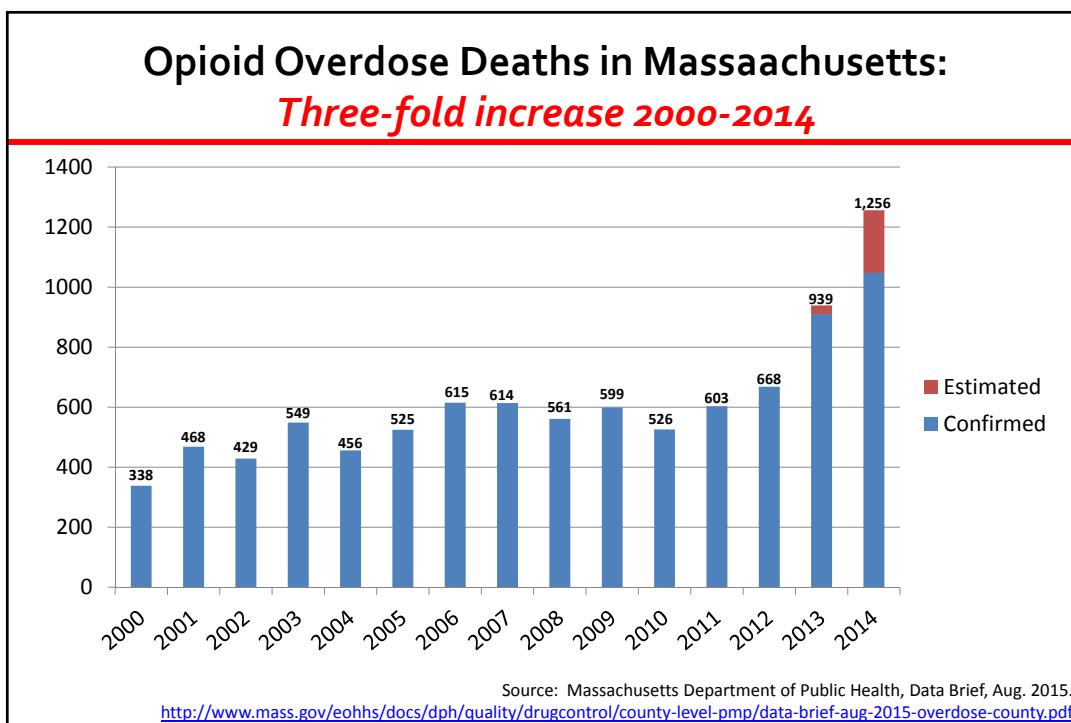
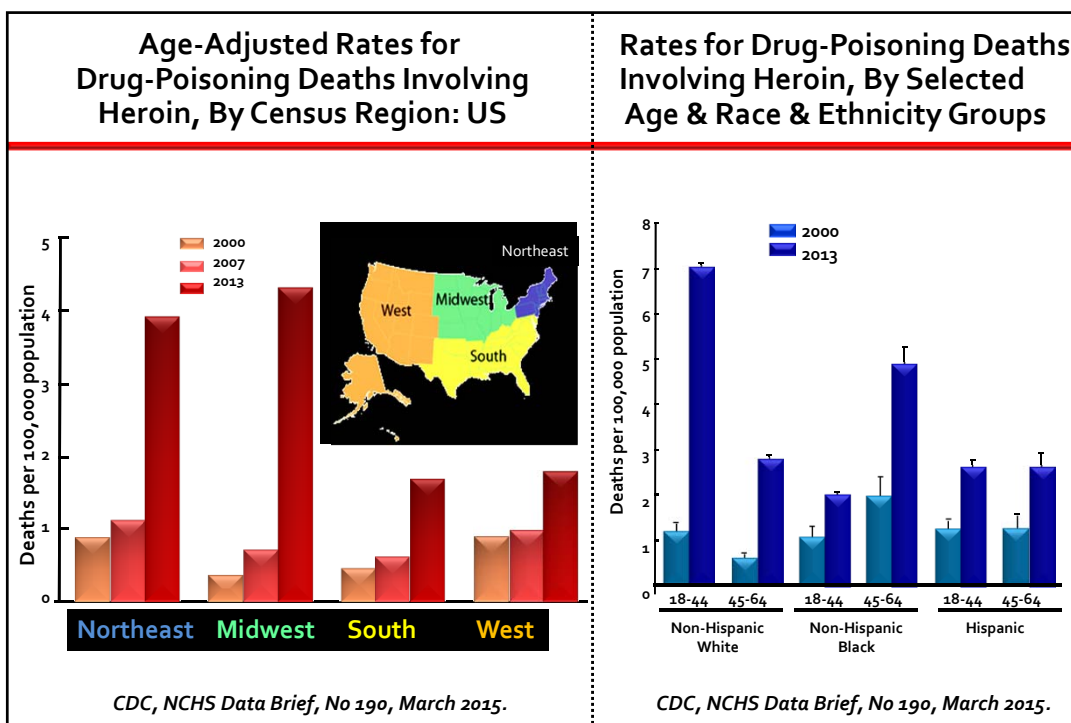
Source: CDC Wonder

Shifting Pattern of Heroin vs. Rx Opioid First Which Drug is *First Opioid* in Persons Seeking Treatment?



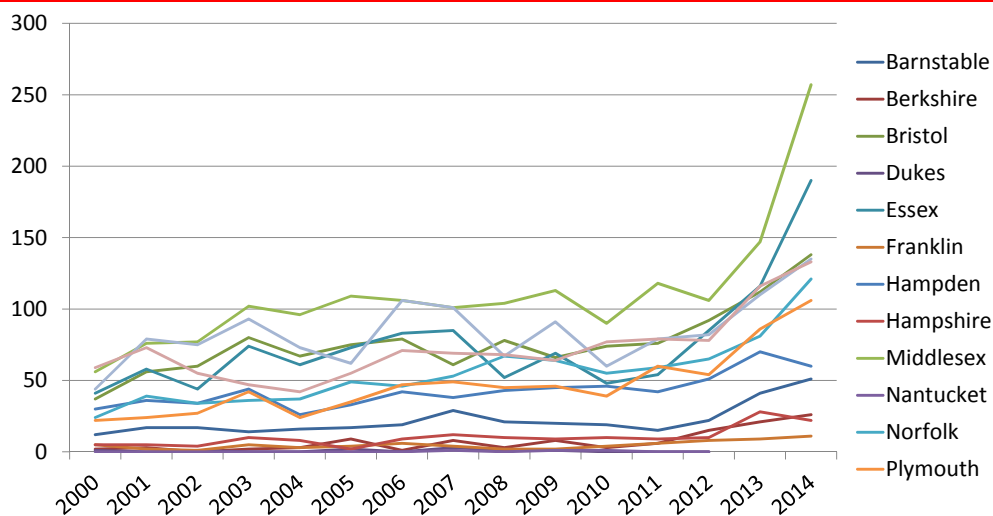
Abuse of Opioid Medications has led to a Rise in Heroin Abuse and Associated Deaths from Overdoses





Opioid Overdose Deaths in Massachusetts:

County Numbers 2000-2014

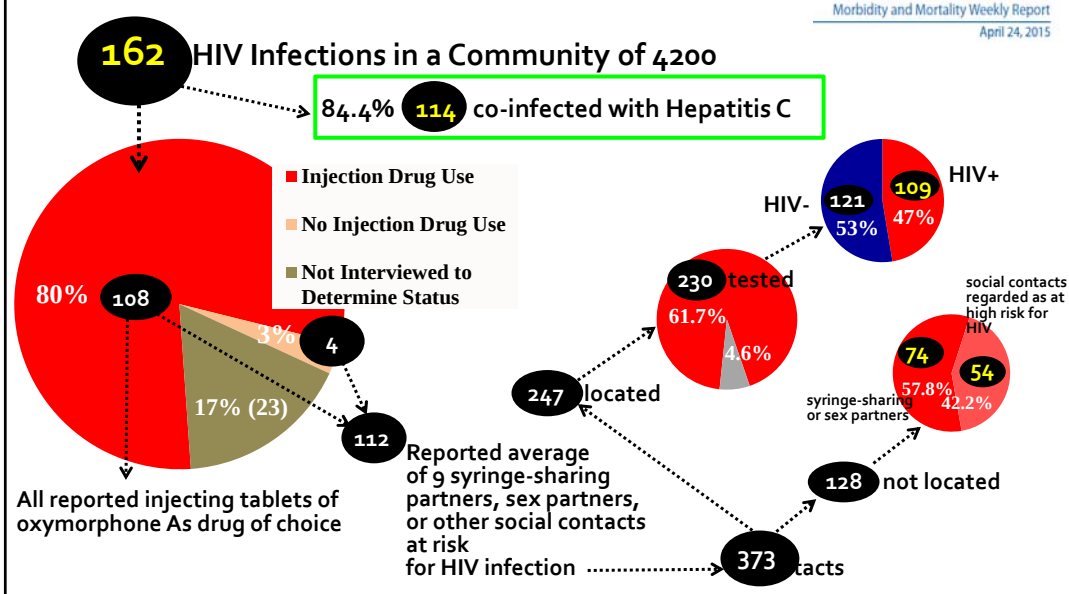


Source: Massachusetts Department of Public Health, Data Brief, Aug. 2015.

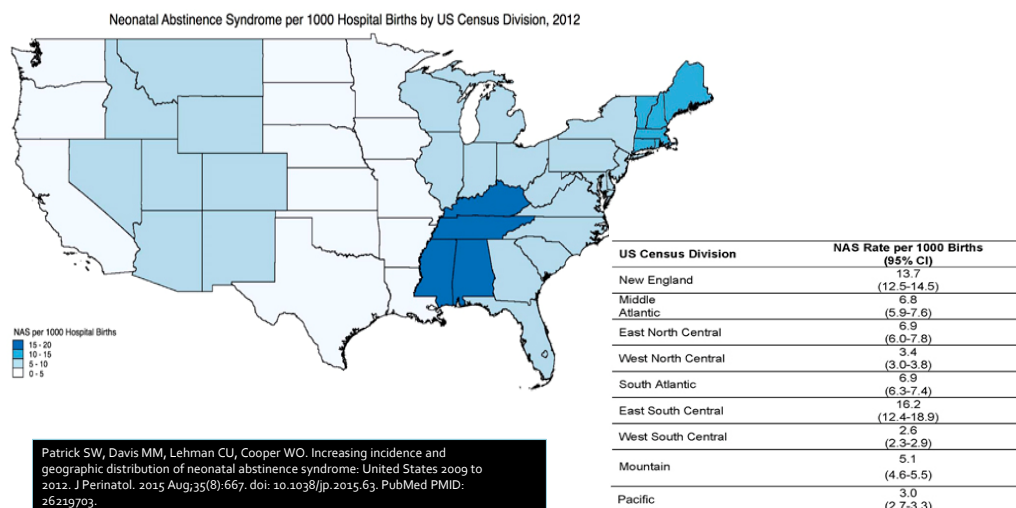
<http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-aug-2015-overdose-county.pdf>

Outbreak of HIV Linked to IDU of Oxymorphone Indiana, 2015

Centers for Disease Control and Prevention
MMWR
 Early Release / Vol. 64
 Morbidity and Mortality Weekly Report
 April 24, 2015

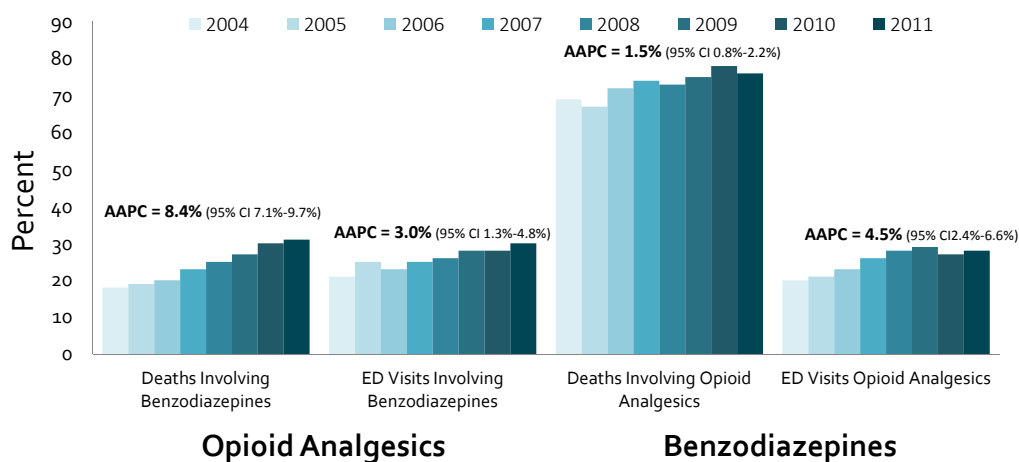


Increasing Neonatal Abstinence Syndrome Incidence & Geography, U.S. 2009-2012



Overlap of Benzodiazepines and Opioids in USA

Opioid Analgesic ED Visits and OD Deaths Involving Benzodiazepines & Benzodiazepine ED Visits and OD Deaths Involving Opioids



Source: CM Jones, J Mcaninch analysis of CDC/NVSS and SAMHSA/DAWN Public Use Files, FDA, 2014, (In Press)

Secretary Burwell's/HHS Opioid Priority Areas

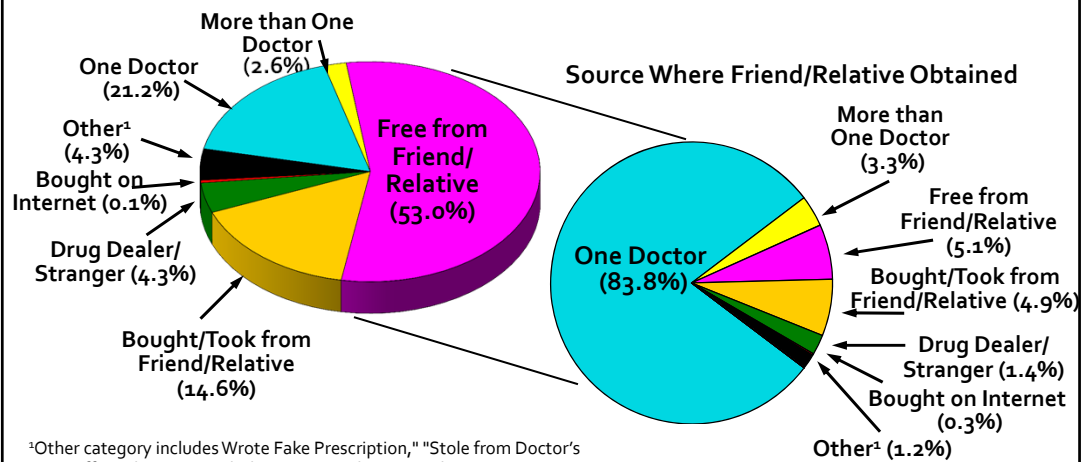
- Opioid prescribing practices to reduce opioid use disorders and overdose
- The expanded use of naloxone, used to treat opioid overdoses
- Expanded use of medication assisted treatment (MAT) for opioid use disorders



http://aspe.hhs.gov/sp/reports/2015/OpioidInitiative/es_OpioidInitiative.pdf

People Abusing Analgesics DIRECTLY & INDIRECTLY Obtain Them by Prescription: Most Recent Pill Source

Source Where Respondent Age 12+ Obtained Analgesics:



Source: SAMHSA, 2012 and 2013 National Survey on Drug Use and Health

Overdose Intervention

- **Naloxone Distribution** for opioid overdose victims. The *potential* for direct intervention to save lives.

➤ *Note the April 3, 2014 FDA approval of the naloxone auto-injector (called "Evzio")*



- **Naloxone Nasal Spray Development**

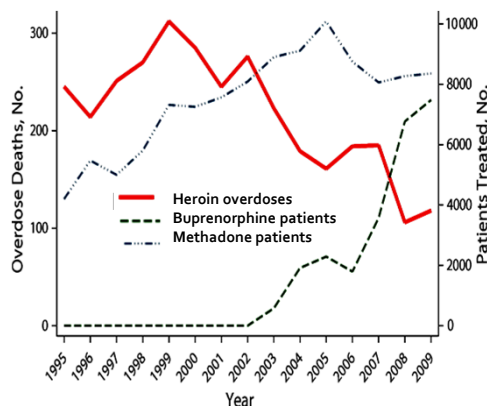
Needle-free, unit-dose, ready-to-use opioid overdose antidote.

- *NIDA STTR Grantee – AntiOp, Inc., Daniel Wermeling, CEO*
- *NIDA clinical study with Lightlake Therapeutics, Inc.*



Accessing Existing and Developing New Medications

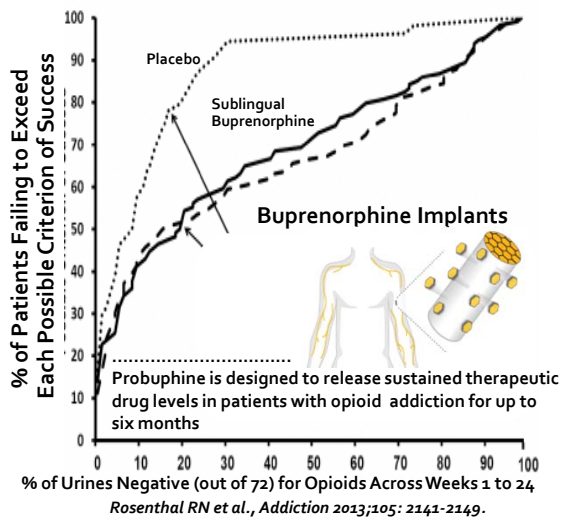
Opioid Agonist Treatments Decreased Heroin OD Deaths Baltimore, Maryland, 1995-2009



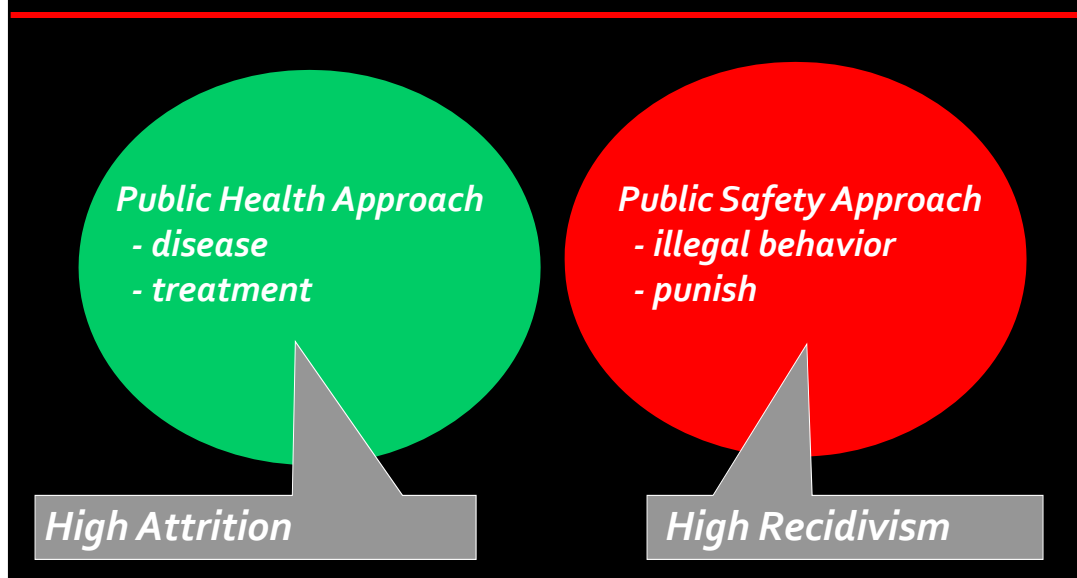
Challenge: Compliance with daily intake
Solution: develop long acting medications

Schwartz RP et al., Am J Public Health 2013.

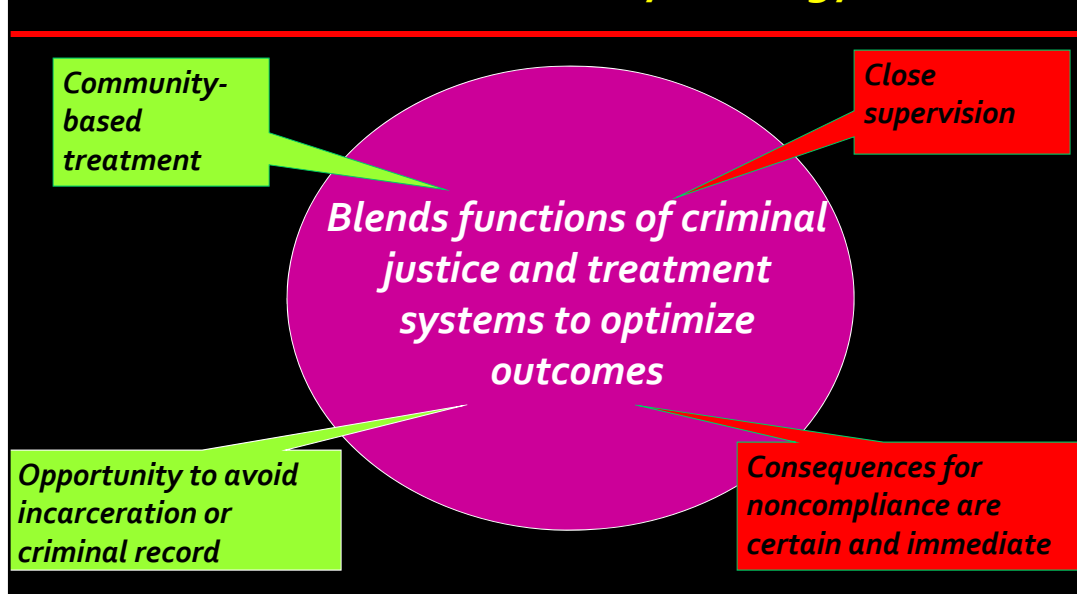
Buprenorphine Implants vs Placebo & Sublingual Buprenorphine/Naloxone



Additional Problem: *Fragmented Approaches to Drugs and Crime*

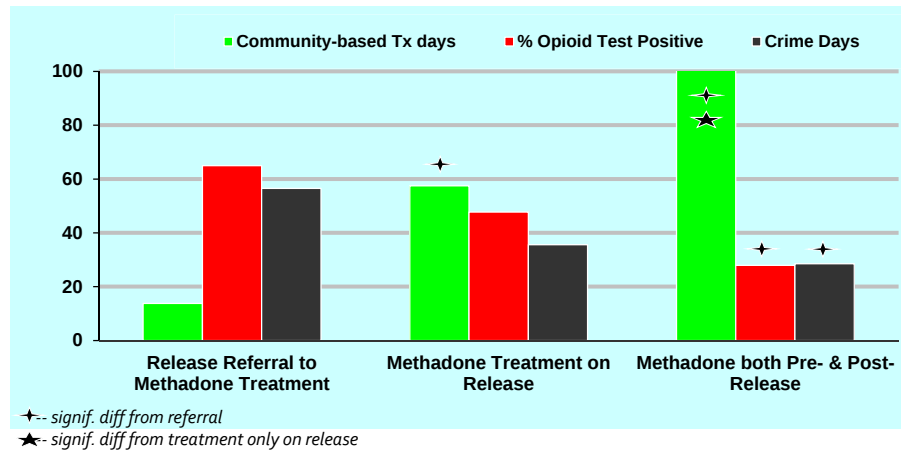


Successful Programs Use an Integrated Public Health-Public Safety Strategy



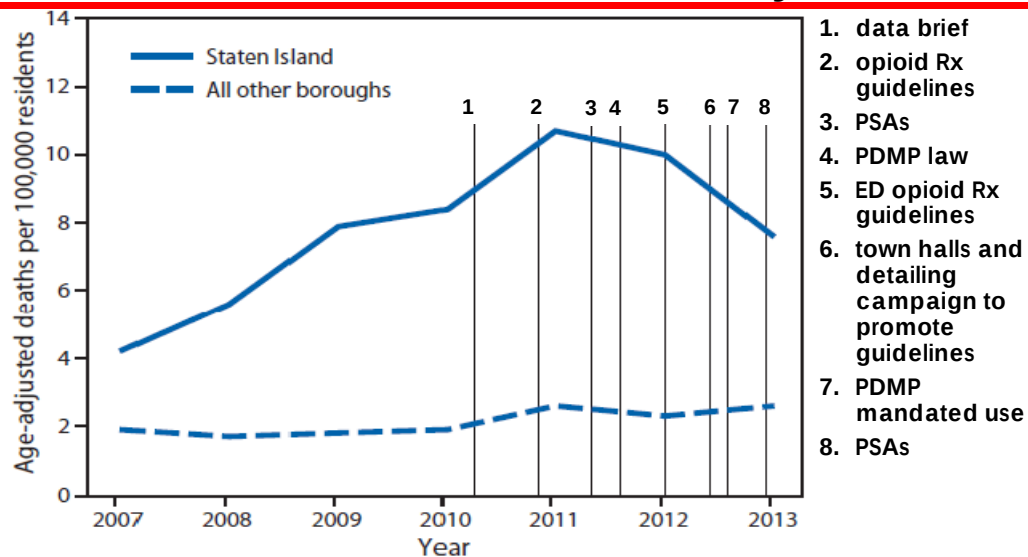
Medications May Improve Both Health and Criminal Justice Outcomes

Methadone Experiment: 6 Mo Post Release (N=201)



Source: Gordon, M.S., Kinlock, T.W., Schwartz, R.P., O'Grady, K.E. (2008). *Addiction. A Randomized Clinical Trial of Methadone Maintenance for Prisoners: Findings at 6-Months Post-Release.*

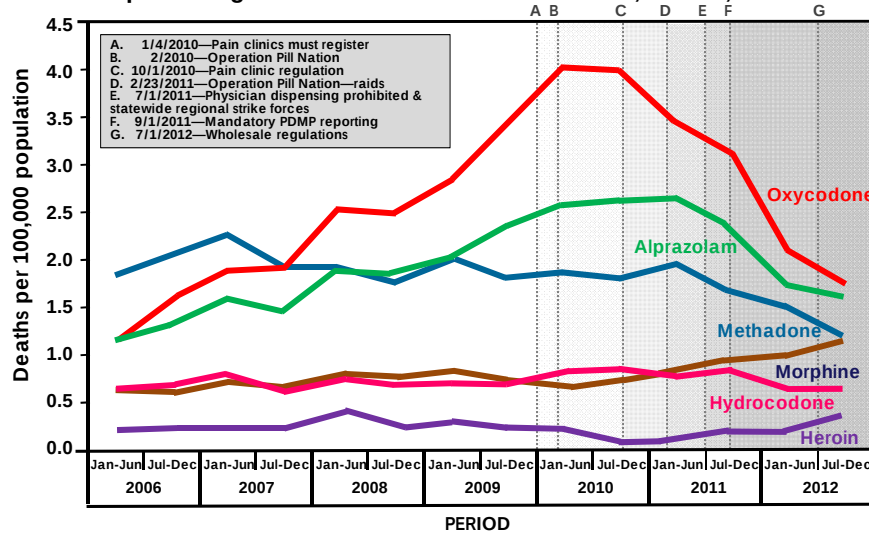
Multi-pronged approaches can save lives: Staten Island Case Study



Source: MMWR, May 15, 2015 64(18):491-494

Decline in Drug Overdose Deaths After State Policy Changes in Florida, 2010–2012

Semi-Annual Drug Overdose Death Rates* for Selected Drugs, & Selected Prescription Drug Diversion & Misuse Actions Taken, Florida, 2006 – 2012⁺



*Per 100,000 population. Based on Florida Department of Health resident population estimates.
+ The source of overdose death data is the Florida Medical Examiners Commission.

Source: CDC, MMWR Vol 63, July 1, 2014.

Recent Slight Reductions in Rx Opioid-Related Deaths but *Marked Increases in Heroin*

2013 OD Deaths:

- 16,235 Rx opioid
— (16,007 in 2012 and 16,917 in 2011) ↓
- 8,257 Heroin
— (5,927 in 2012 and 4,397 in 2011) ↑

Sources: National Vital Statistics System, CDC

