

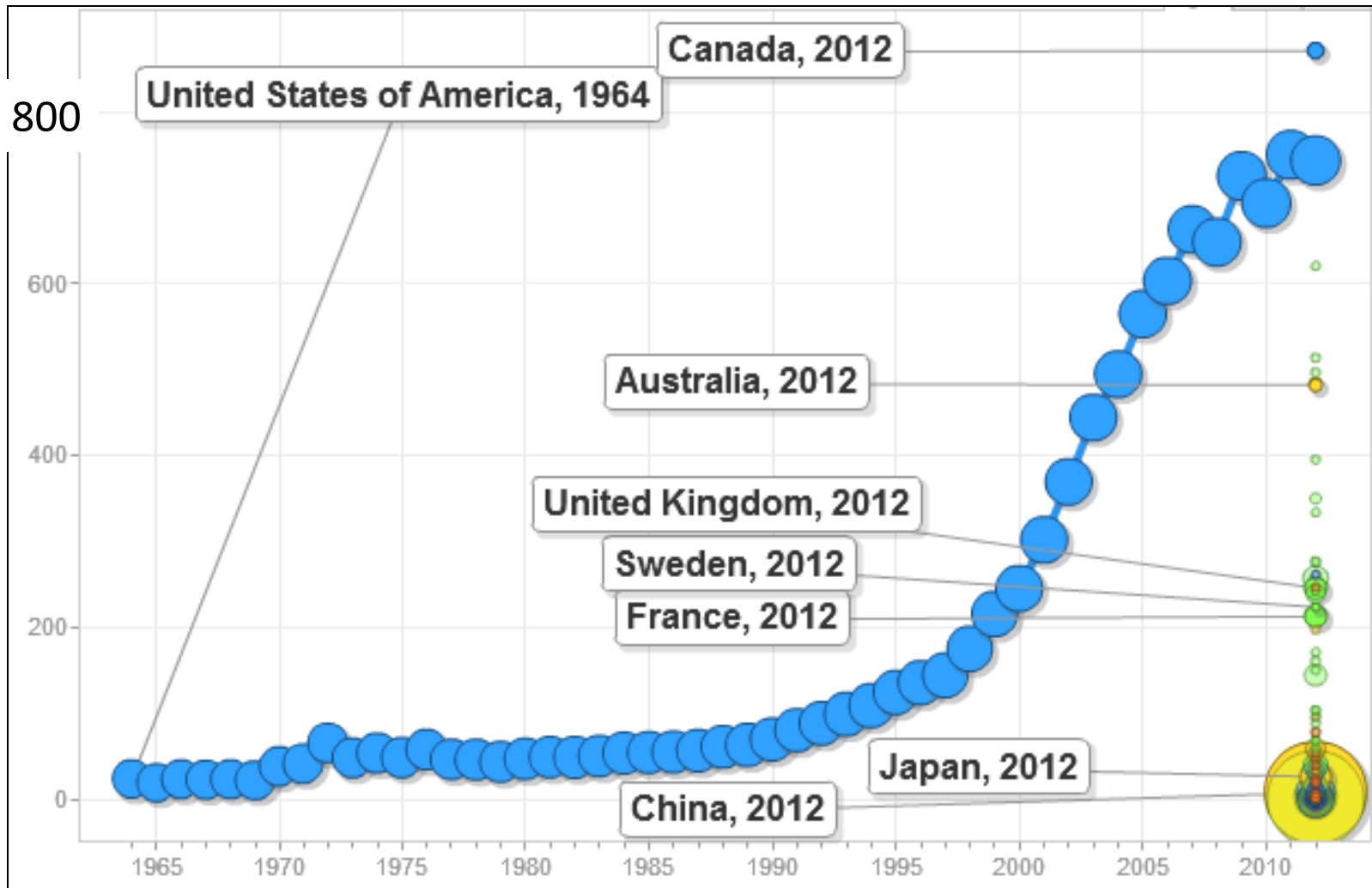
# **New Trends in Prescription Drug Use and Abuse**

## **USA Issues on Prescription Opioids**

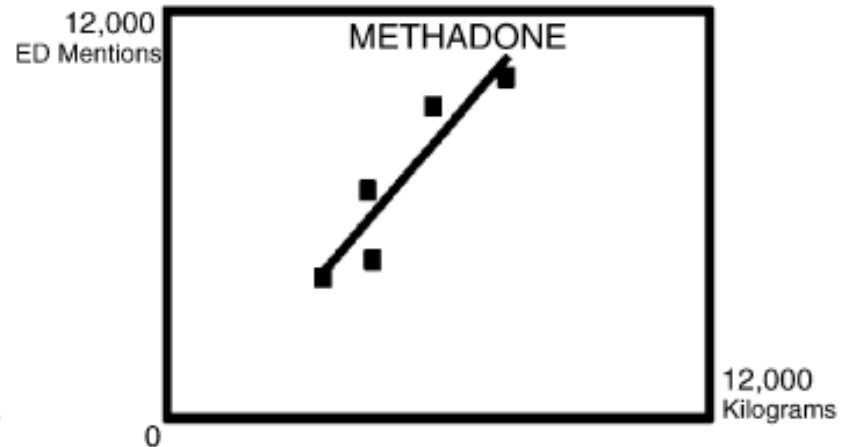
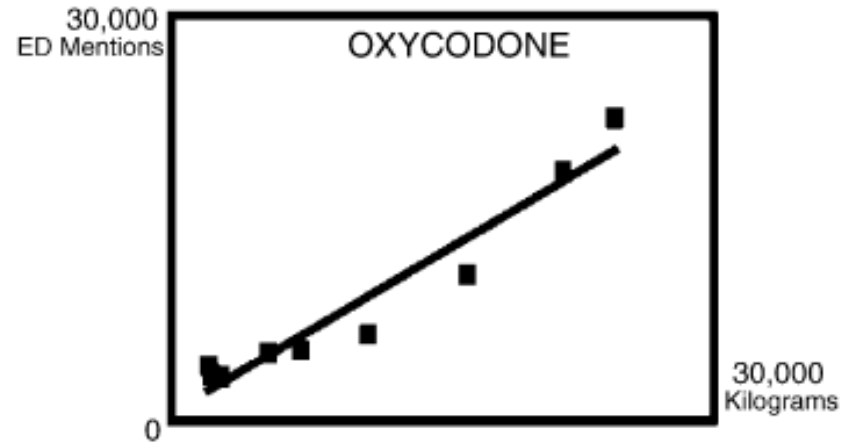
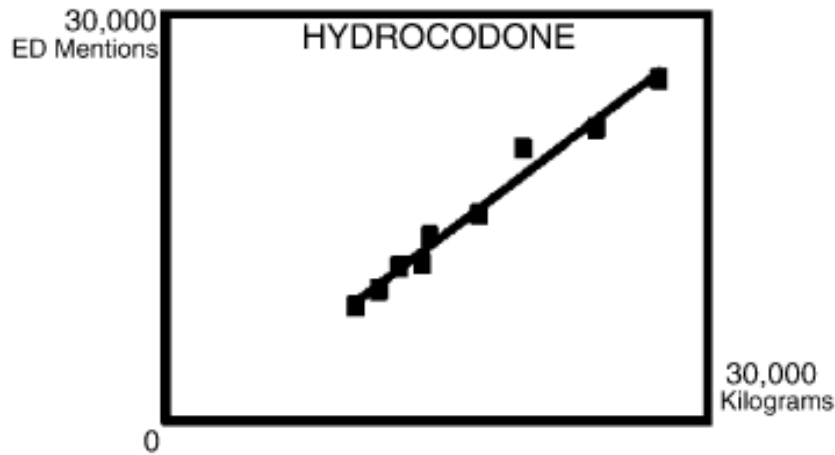
International Society of Addiction Medicine  
Yokohama, Japan  
October 4, 2014

Richard C. Dart, MD, PhD  
Director, Rocky Mountain Poison and Drug Center  
Professor, University of Colorado School of Medicine

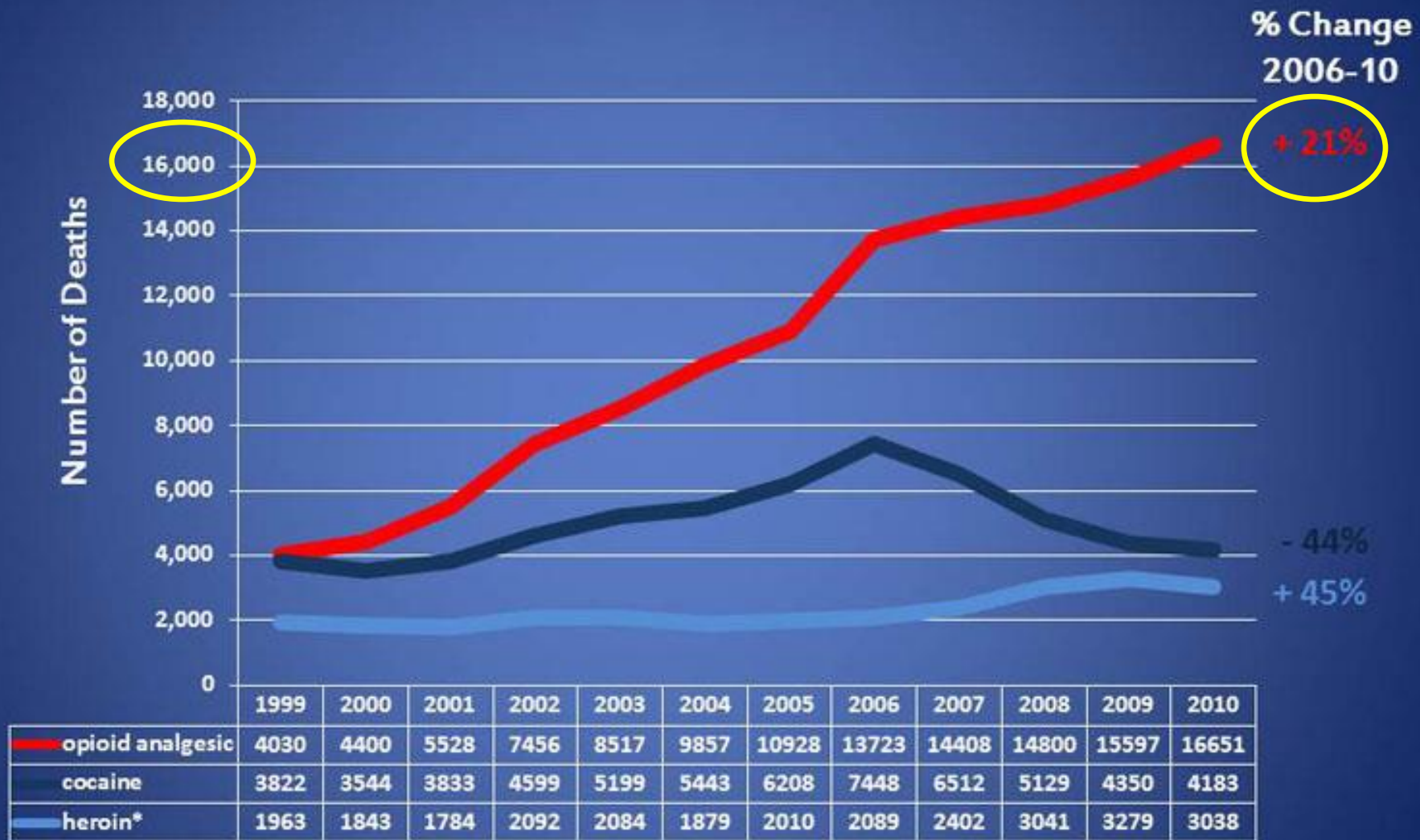
# Prescription Opioid Consumption, 1964 - 2010



# More Drug Production = More Drug Abuse But - the Slope Varies by Drug



# Overdose Deaths Involving Opioids, Cocaine and Heroin: United States, 1999–2010



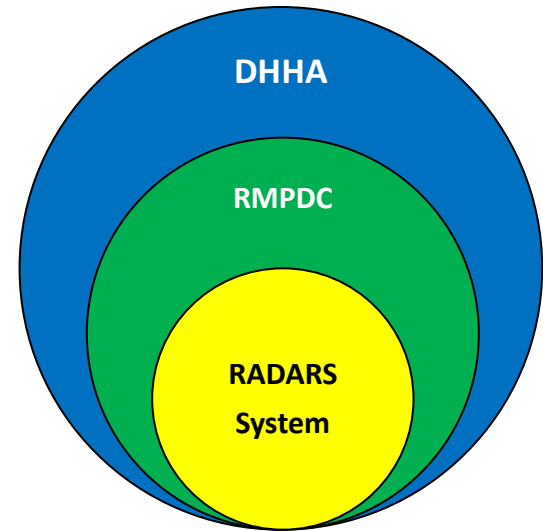
<http://www.whitehouse.gov/blog/2014/02/10/5-things-know-about-opioid-overdoses>

Source: CDC

# What is the RADARS<sup>®</sup> System?

## History

- 2002, Purdue Pharma
- 2006, Denver Health and Hospital Authority
  - Rocky Mountain Poison and Drug Center
  - Denver Public Hospital for 150 years
  - State sanctioned independent authority
- Most companies with an opioid product on the US market are subscribers.



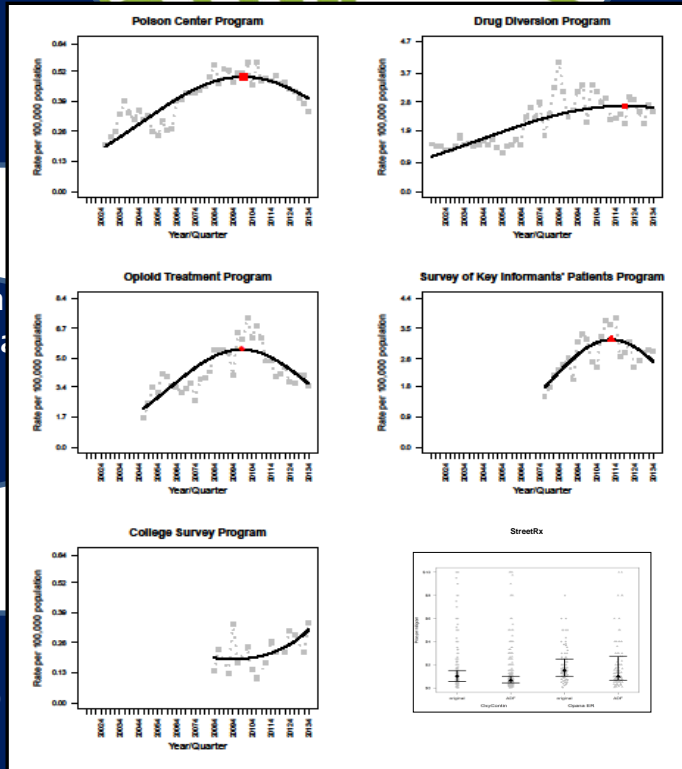
## Conflict of Interest Statement

- RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado.
- Subscribers receive information, but do not participate in developing the System, data collection, or analysis of the data. They do not have access to the raw data.
- Employees are prohibited from personal financial relationships with any company.

# Mosaic Surveillance of Prescription Drug Abuse

## Acute Health Events

49 Poison centers  
46 states  
456,610 cases  
491,874 opioid mentions



## Drug Transactions

Criminal Justice  
260 agency; 49 states  
145,090 cases with  
146,786 opioid mentions

## Entering Treatment

Opioid Tx Program  
66 programs; 34 states  
41,031 cases with  
183,573 opioid mentions

## Entering Treatment

SKIP  
109 practices, 45 states  
10,214 cases with  
64,678 opioid mentions

## New Initiates

College Survey  
2000 students, 50 states  
3,564 cases with  
11,871 opioid mentions

## Drug Market Price

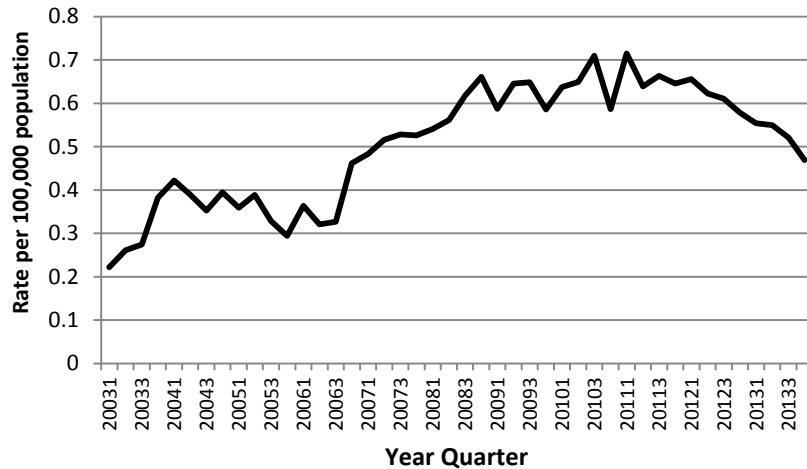
StreetRx.com  
Users/Buyers, 50 states  
8,441 price entries for  
an opioid

## Web Monitoring

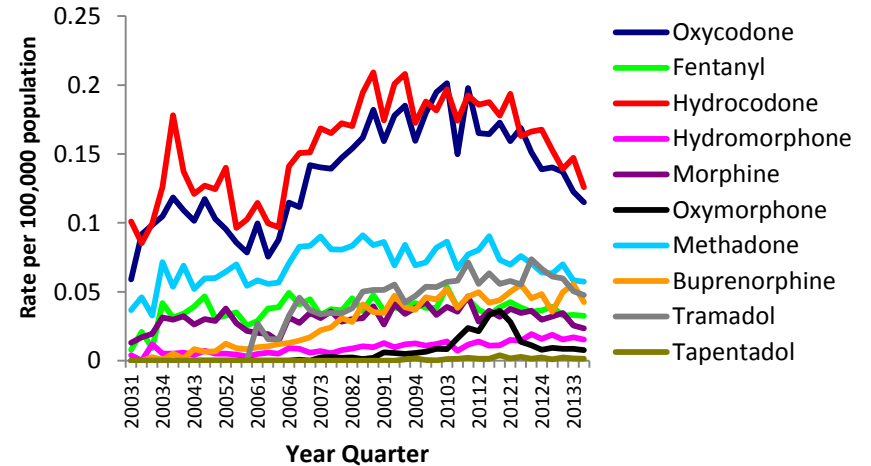
> 150 million sites  
monitored  
> 35,000 posts  
coded for analysis

# Poison Center Program

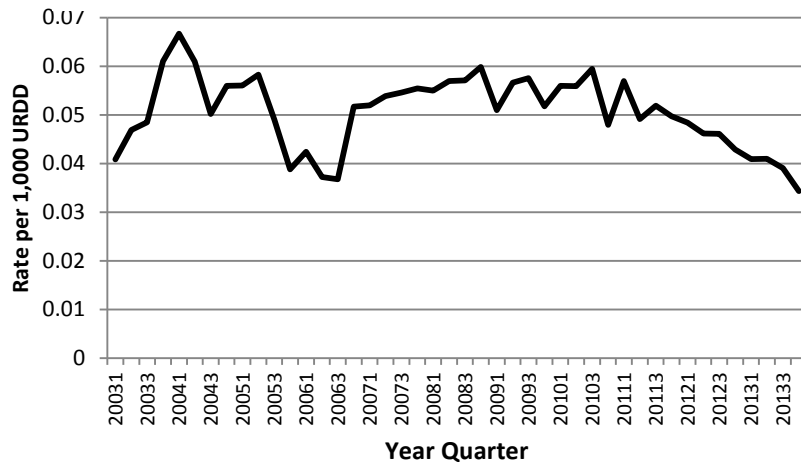
Population – Rate per 100,000 people



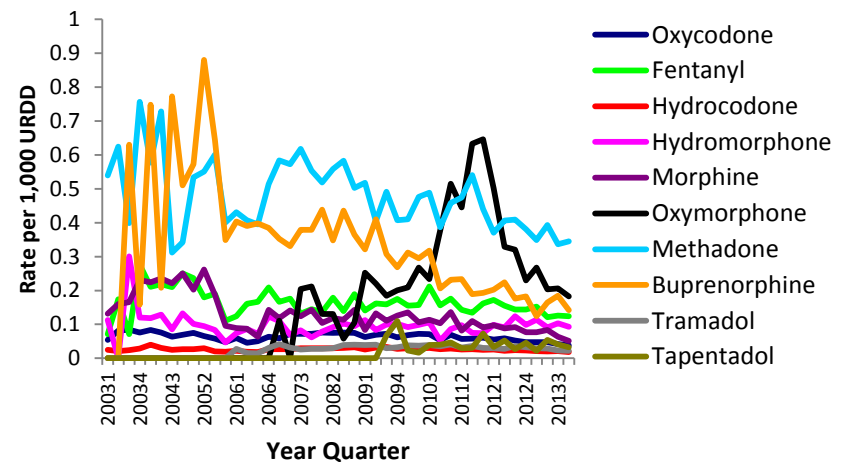
Population – Rate per 100,000 people



URDD = Number of People Filling Prescription

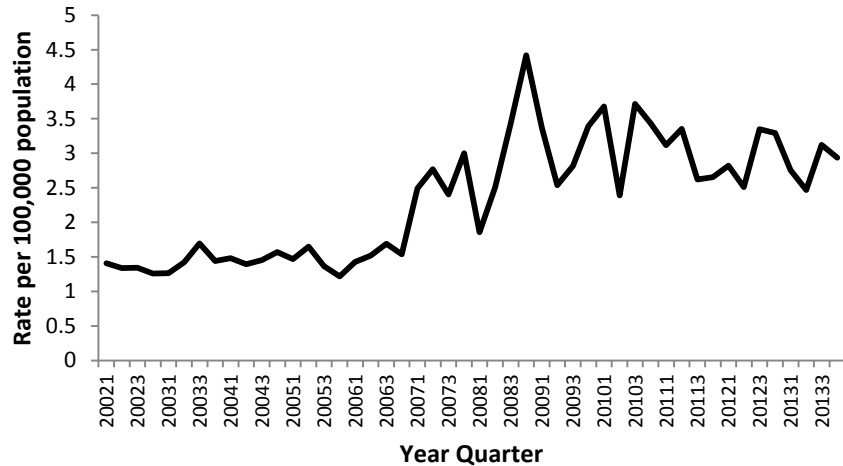


URDD = Number of People Filling Prescription

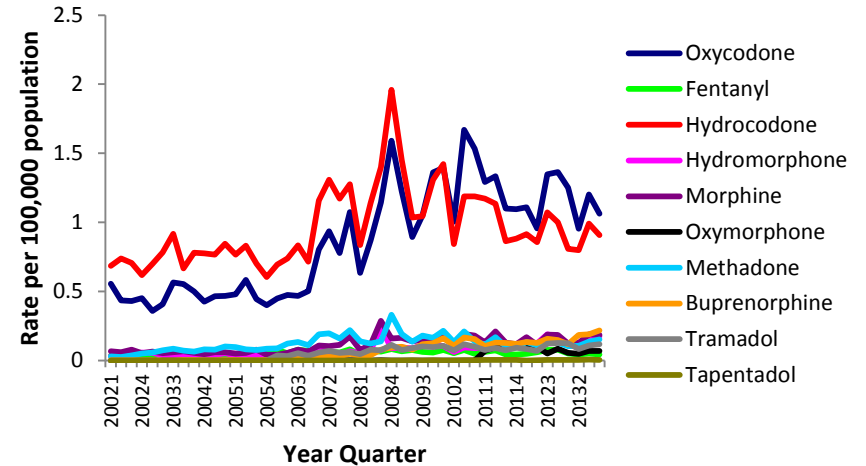


# Drug Diversion Program

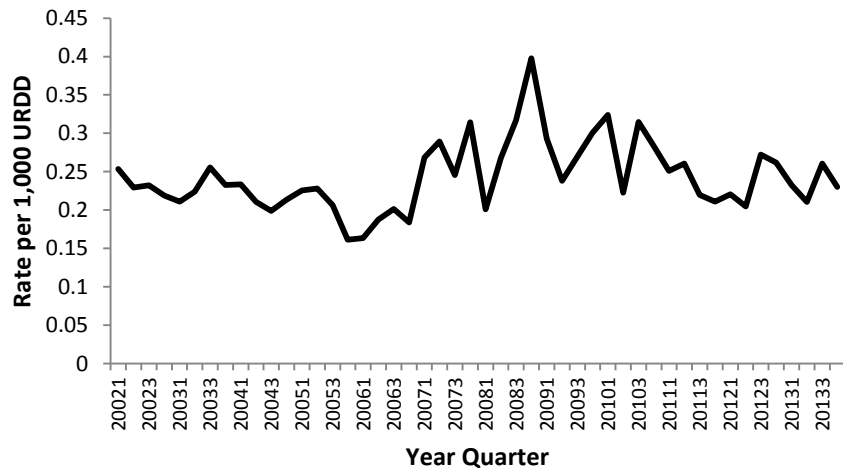
Population – Rate per 100,000 people



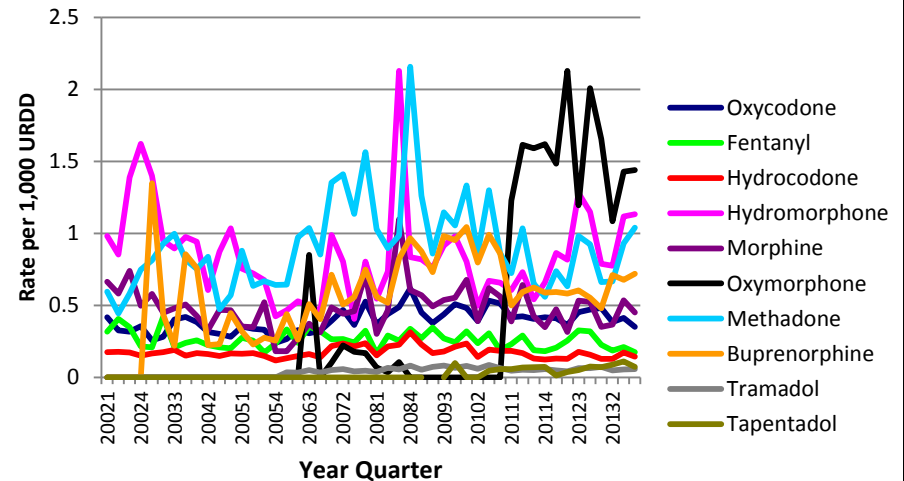
Population – Rate per 100,000 people



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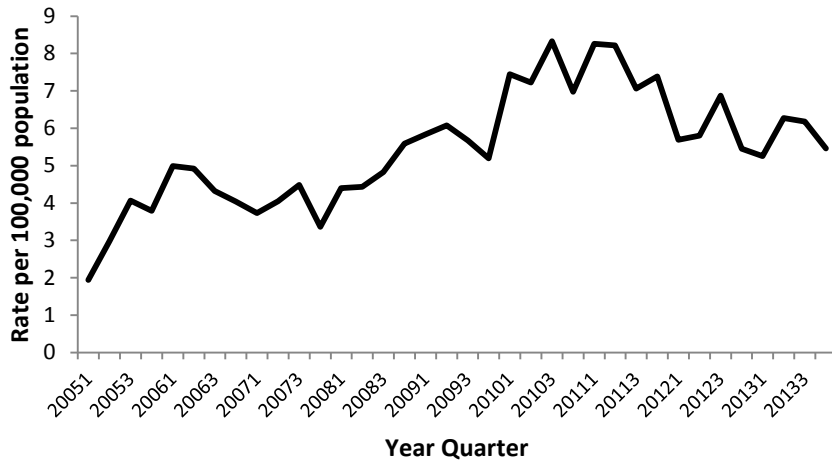
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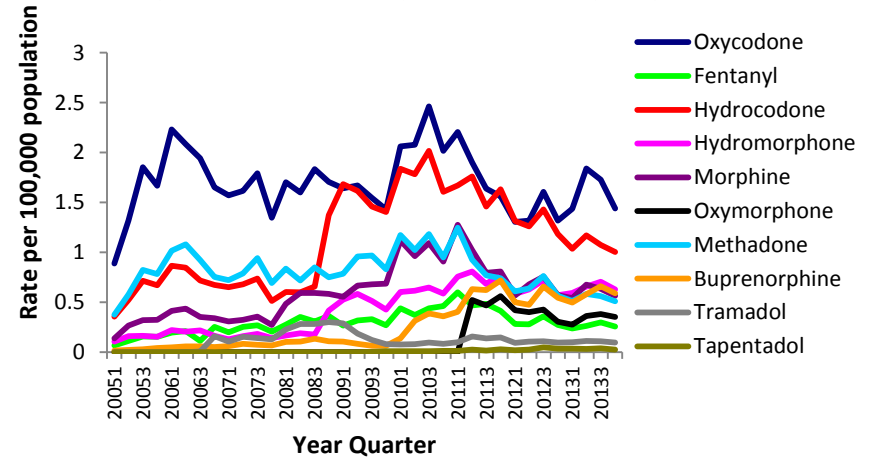


# Treatment Programs Combined

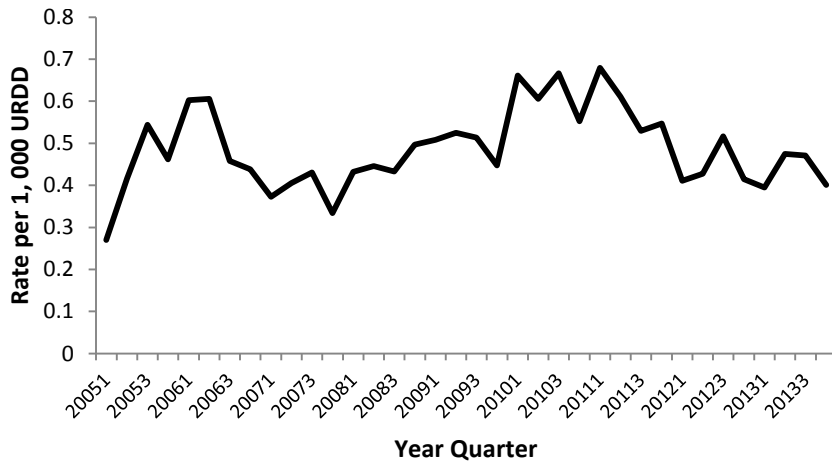
Population – Rate per 100,000 people



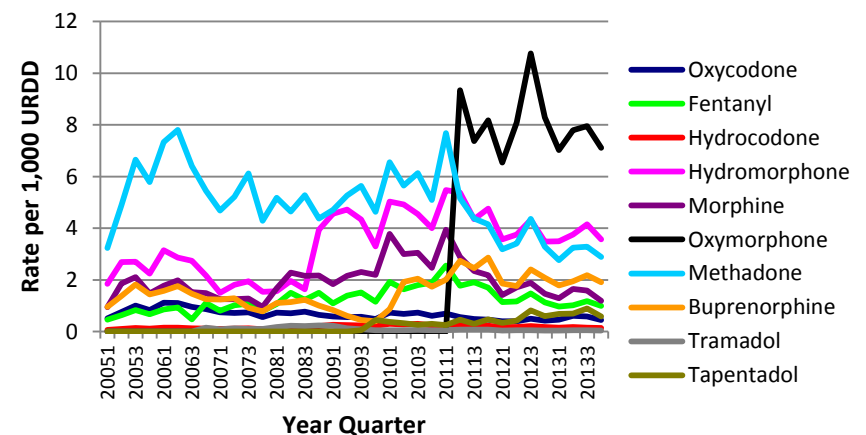
Population – Rate per 100,000 people



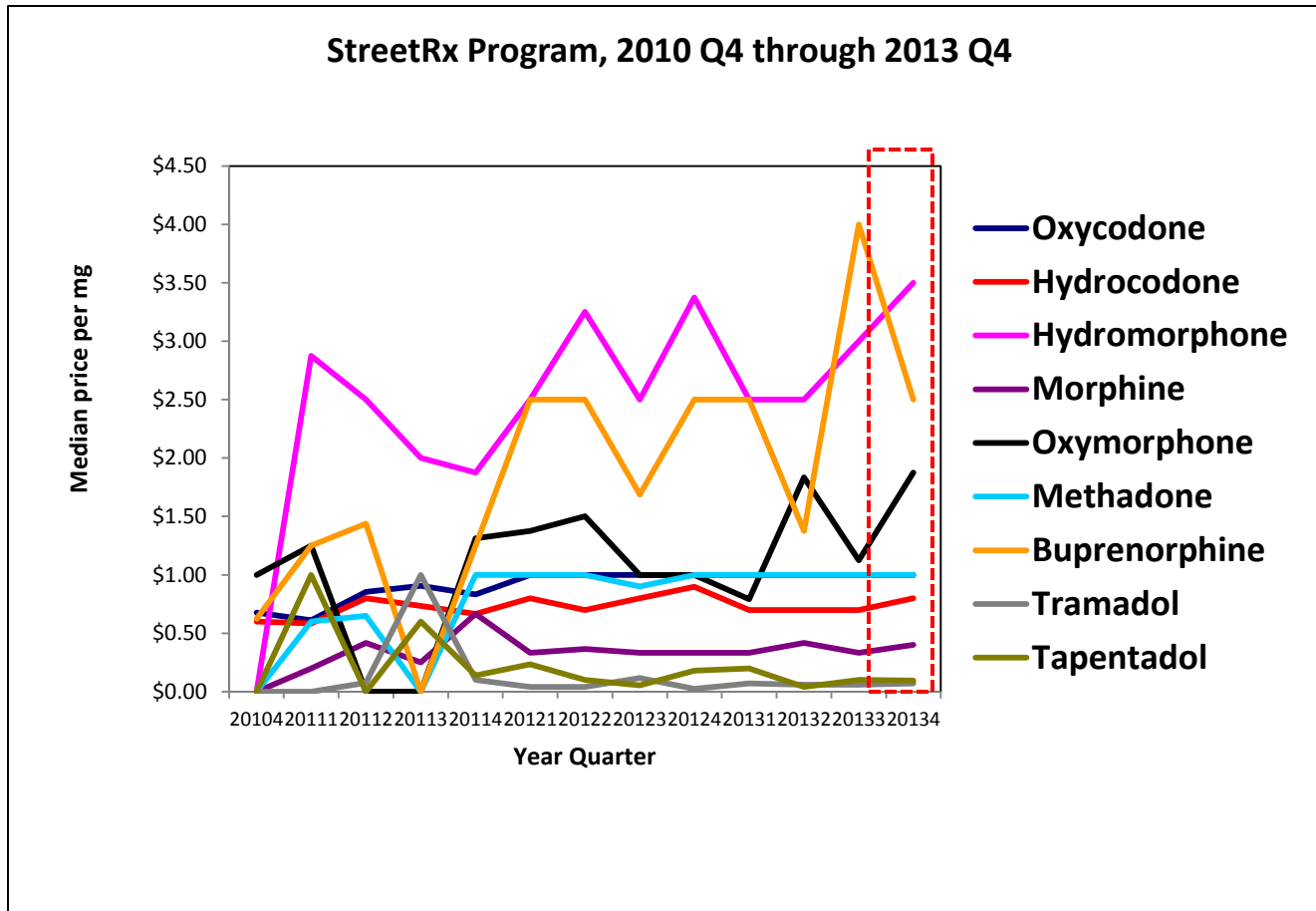
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# StreetRx.com

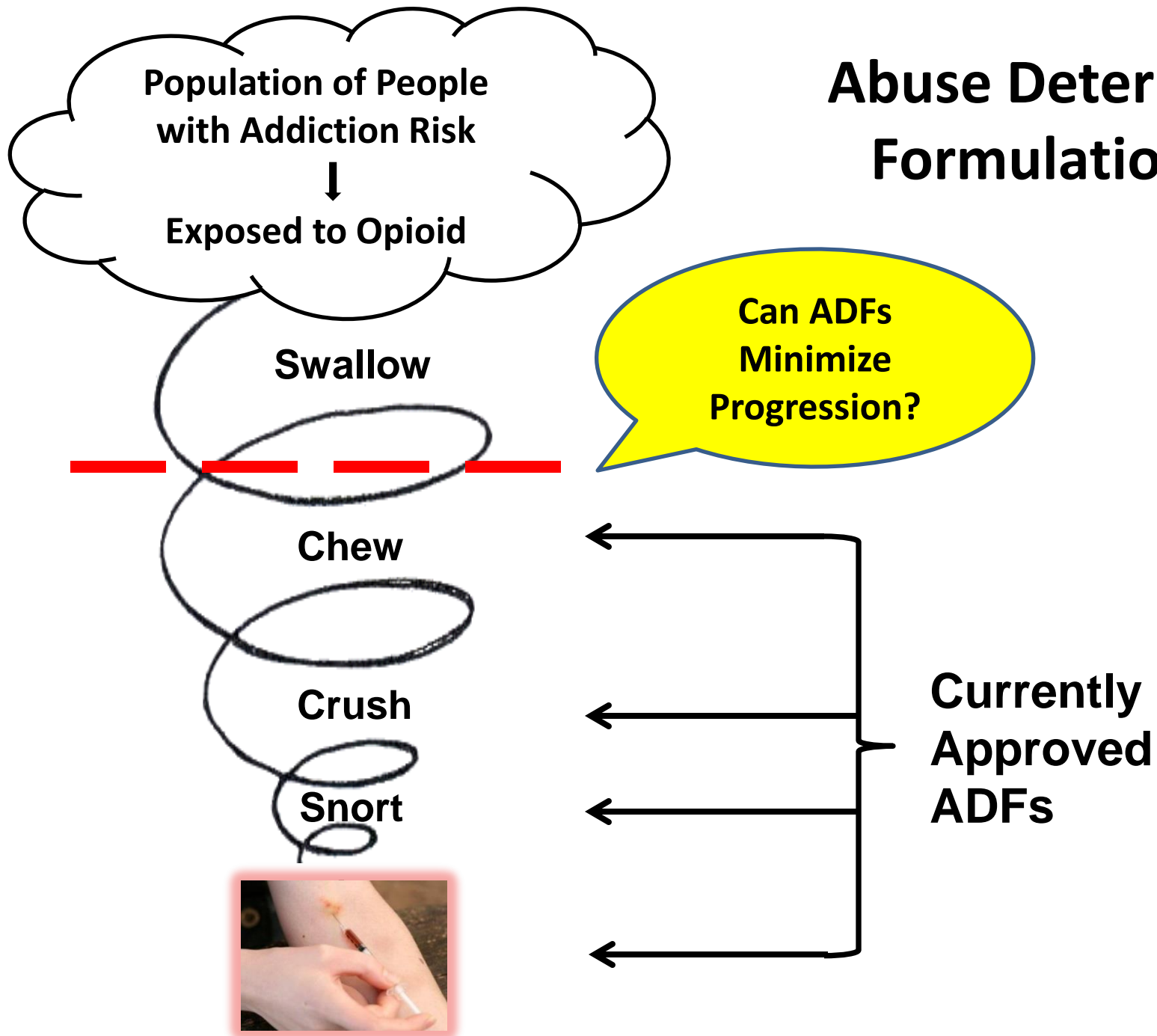


# Abuse Deterrent Formulations in the United States

OxyContin, Opana ER, Exalgo, Oxecta, Nucynta ER

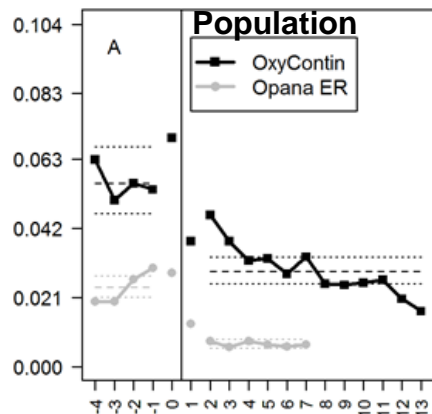


# Abuse Deterrent Formulations

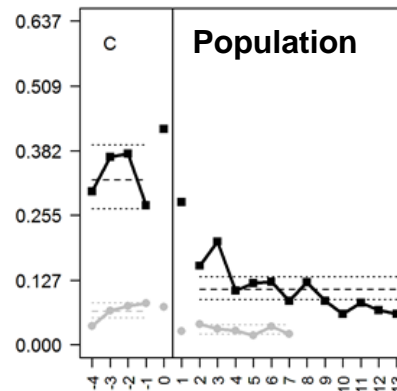


# Mosaic Surveillance on Opana ER and OxyContin

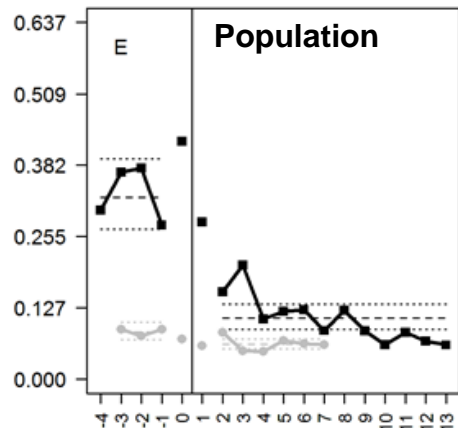
**Poison Center Program**



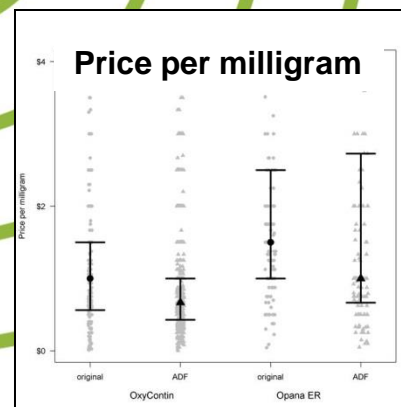
**Drug Diversion Program**



**Treatment Programs COMBINED**

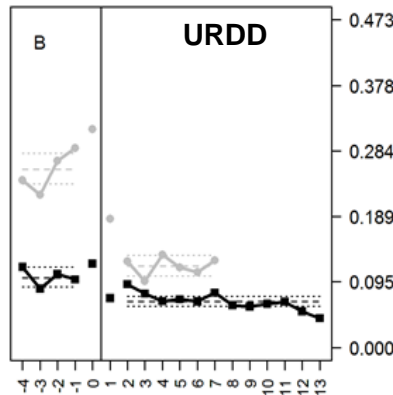
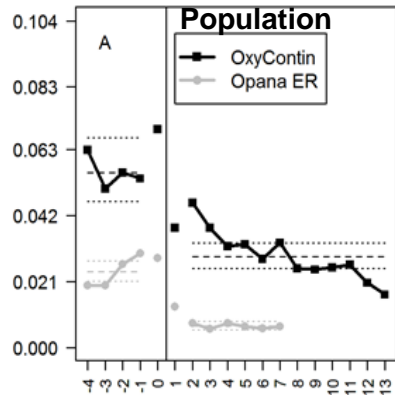


**StreetRx**

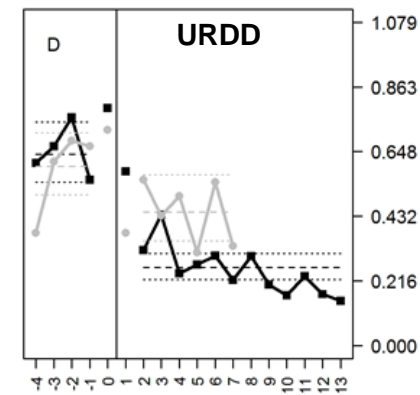
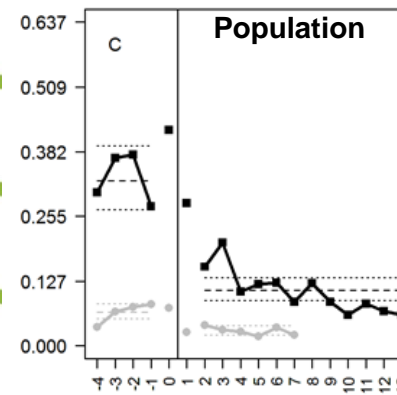


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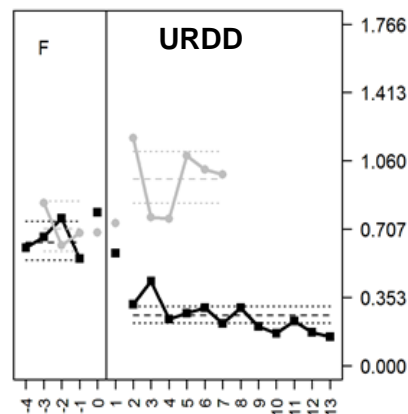
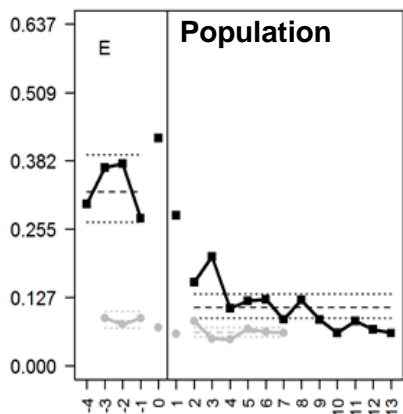
## Poison Center Program



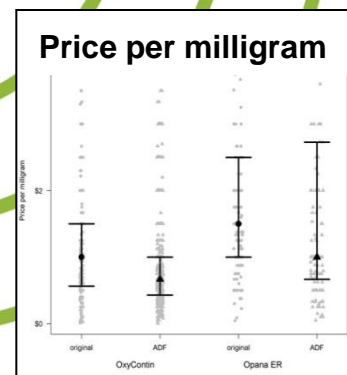
## Drug Diversion Program



## Treatment Programs COMBINED



## StreetRx



URDD – Unique Recipients of Dispensed Drug

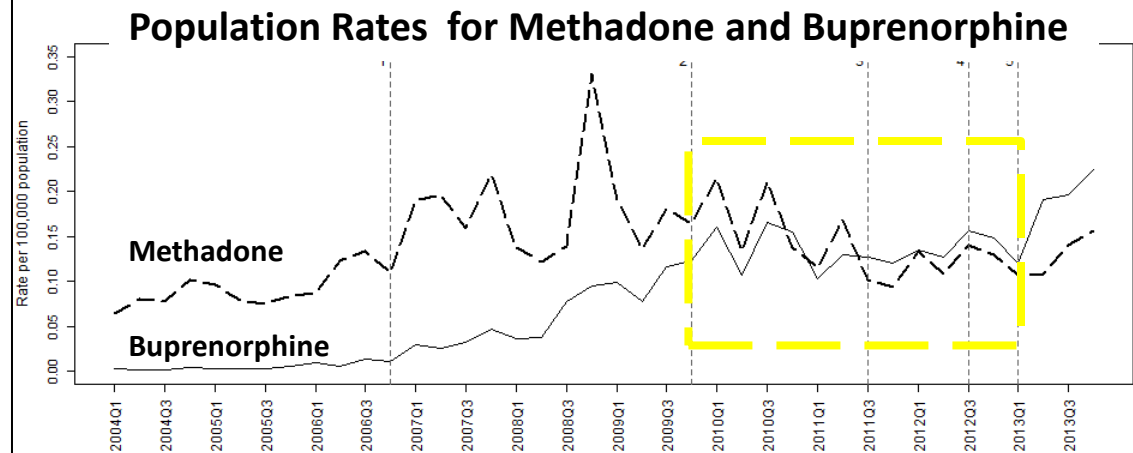
# Buprenorphine and Methadone

# Drug Diversion Program

- Total Methadone
- Total Buprenorphine
- ..... Single Ingredient Buprenorphine Tablets
- Combination Buprenorphine Tablets
- Buprenorphine Oral Film

## Description

- 1 Patients per provider 30 - 100
- 2 “Generic Subutex” enters market
- 3 Branded Subutex voluntarily removed from market
- 4 Branded Suboxone voluntarily removed from the market
- 5 Generic Bup-Nalox tablets introduced
- 5 Changes the amount of time before take-home privilege can be started





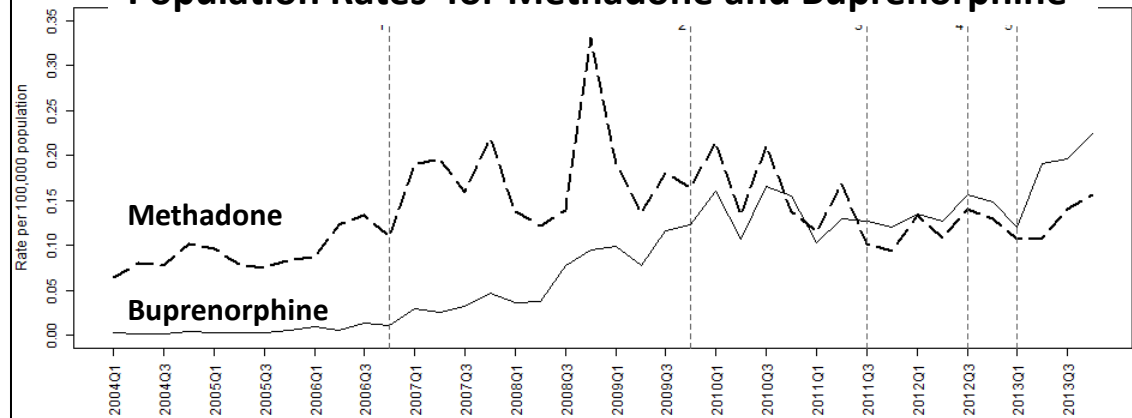
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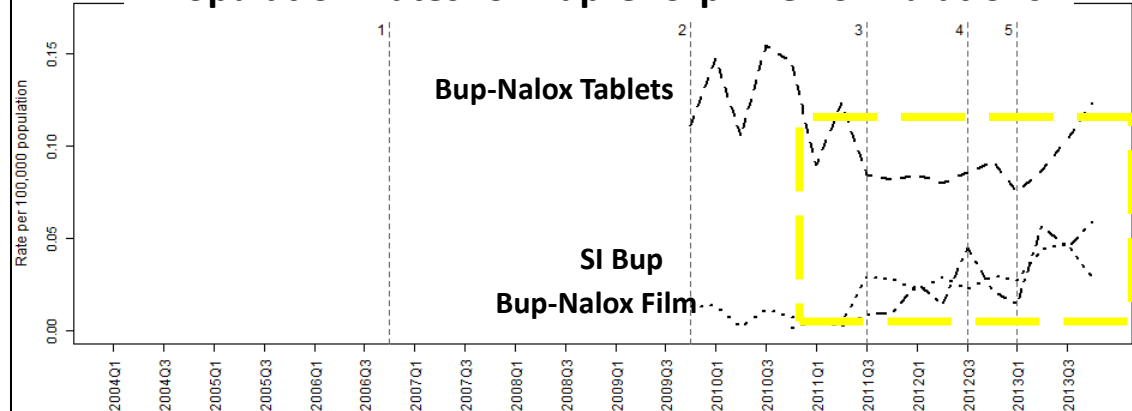
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## Population Rates for Methadone and Buprenorphine



## Population Rates for Buprenorphine Formulations



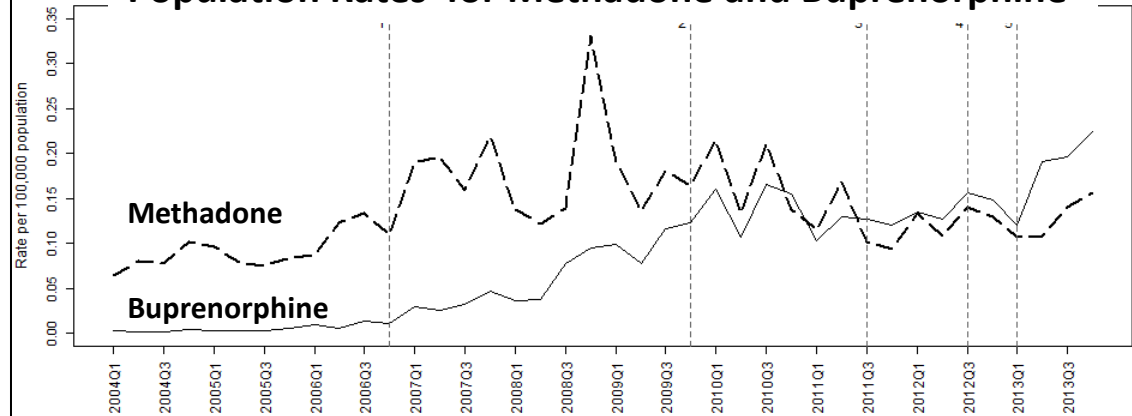
# Drug Diversion Program

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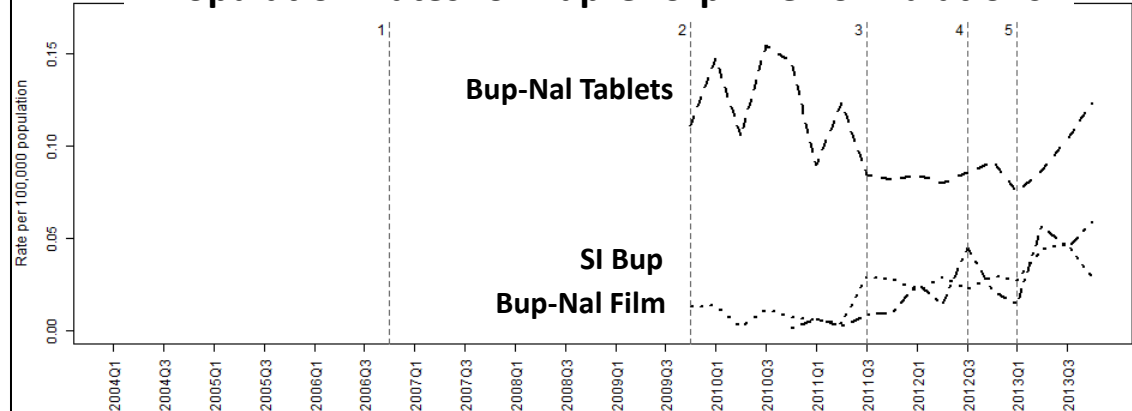
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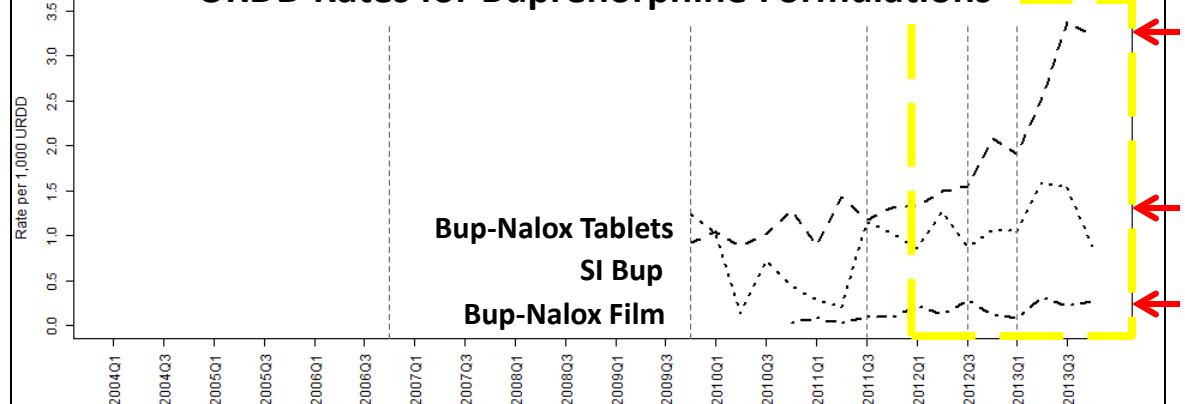
## Population Rates for Methadone and Buprenorphine



## Population Rates for Buprenorphine Formulations



## URDD Rates for Buprenorphine Formulations



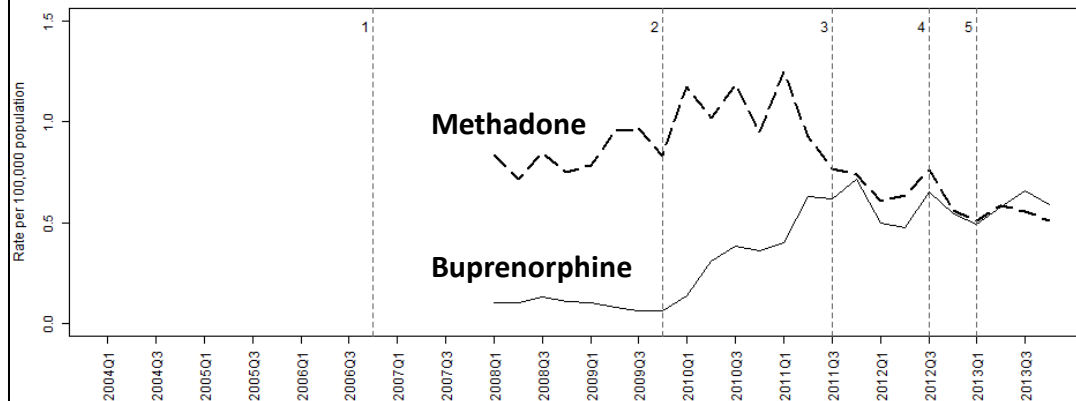
# Treatment Programs Combined

- Total Methadone
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- - - Combination Buprenorphine Tablets
- . - . Buprenorphine Oral Film

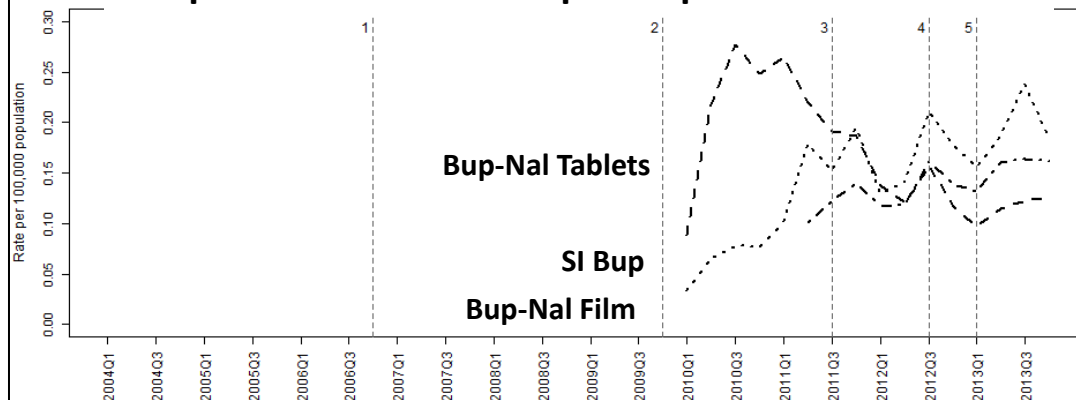
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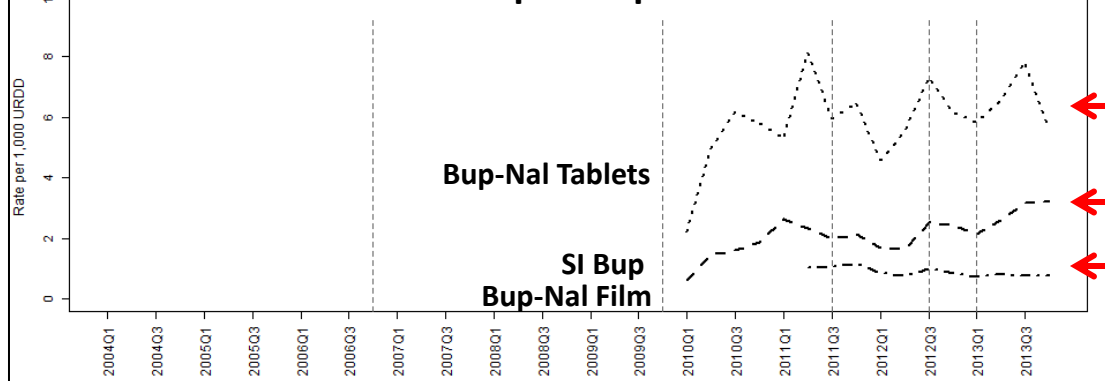
## Population Rates for Methadone and Buprenorphine



## Population Rates for Buprenorphine Formulations



## URDD Rates for Buprenorphine Formulations



# Conclusions

- Misuse, abuse and diversion are nearly always related to availability through prescriptions
- While some progress has occurred in US, there is very far yet to go.
- Hydrocodone and oxycodone dominate in volume, but buprenorphine predominate after adjusting for availability.
- It is important to assess the impact of drug availability (e.g. URDD)
- The buprenorphine-naloxone combination film has the lowest rates based on drug prescribing.

# Thank You!

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