# The Opioid Epidemic in Maryland: A Public Health Perspective

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# Defining the "Opioid Epidemic"

- "Opioid" includes:
  - Natural and semi-synthetic substances derived from the opium poppy ("opiates") & synthetic substances that produce pharmacologic effects similar to opiates
  - Pharmaceutical analgesics ("painkillers"), including oxycodone, hydrocodone, morphine, methadone, fentanyl, etc.
  - Illicit drugs, incl. heroin & increasing array of powerful non-pharmaceutical synthetics
- "Opioid epidemic" - nearly 2 decade increase in opioid-related mortality & morbidity in US
- Increasing described as an **iatrogenic** epidemic of opioid *addiction,* rather than *misuse/abuse*

# Factors Driving the Epidemic

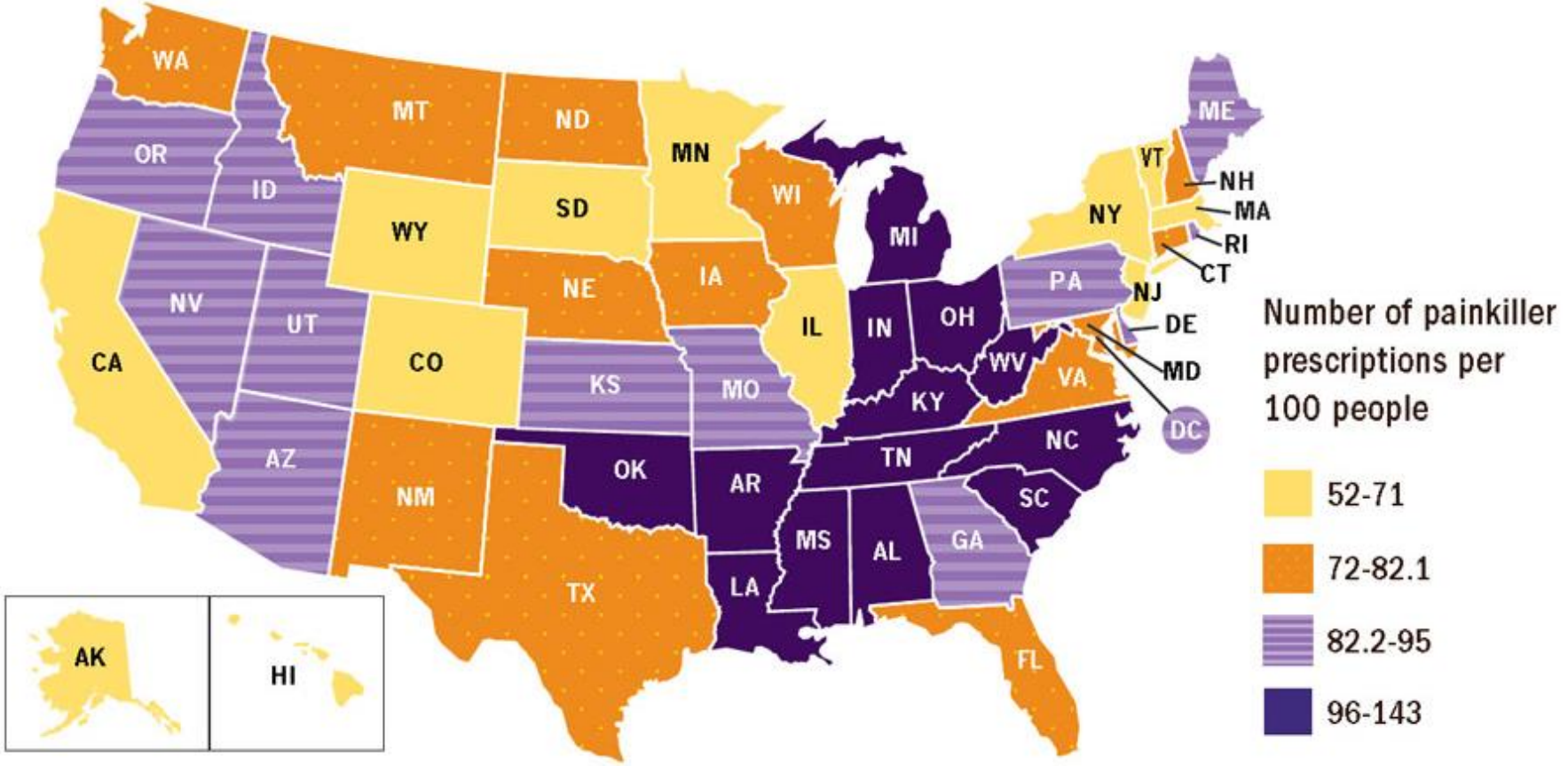
***Policy Factors***

- Patient advocacy for more focus on chronic pain mgmt. and palliative care
- Aggressive pharma industry marketing campaign targeting prescribers, regulators, policymakers - pain as the "5th vital sign" & opioids safe/effective for chronic pain mgmt.
- Facility treatment policies, healthcare payer policies, accreditation standards, patient satisfaction scores tied to pain control

***Social/Environmental Factors***

- Huge increase in opioid Rx = pervasive availability for medical or non-medical use in all geographic areas & among many different demographic groups previously w/ minimal exposure/access
- Aging populations w/ increasing physical health problems & disability
- Economic stress, employment scarcity and community decline
- Shift in illicit opioid market to meet demand created by Rx opioid addiction

# State Opioid Analgesic Prescription Rates: 2012

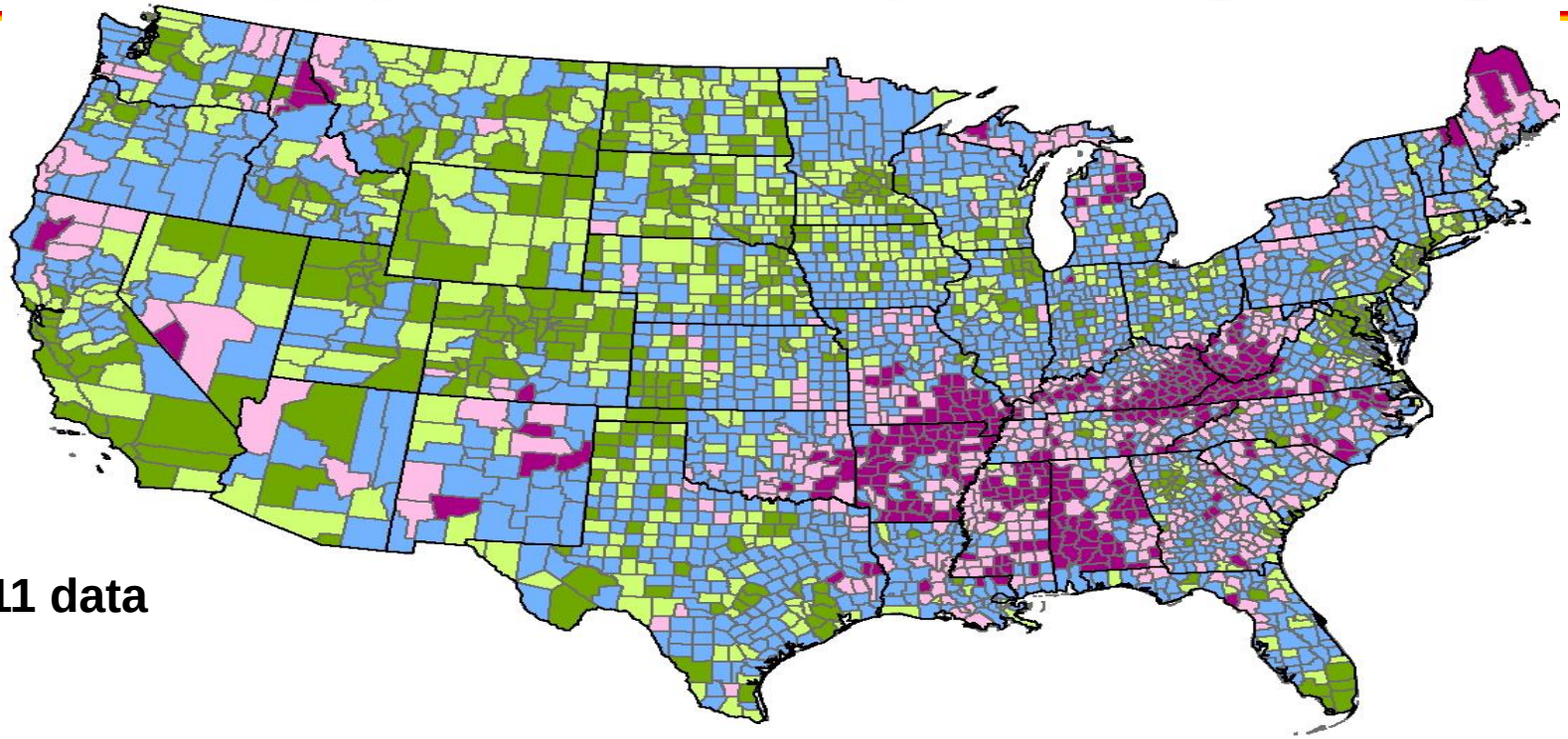



SOURCE: IMS, National Prescription Audit (NPA™), 2012.

Slide source: CDC Vital Signs, July 2014
http://www.cdc.gov/vitalsigns/opioid-prescribing/

# Americans Receiving Disability

The percentage of people 15-64 receiving Social Security disability payments varies widely from county to county



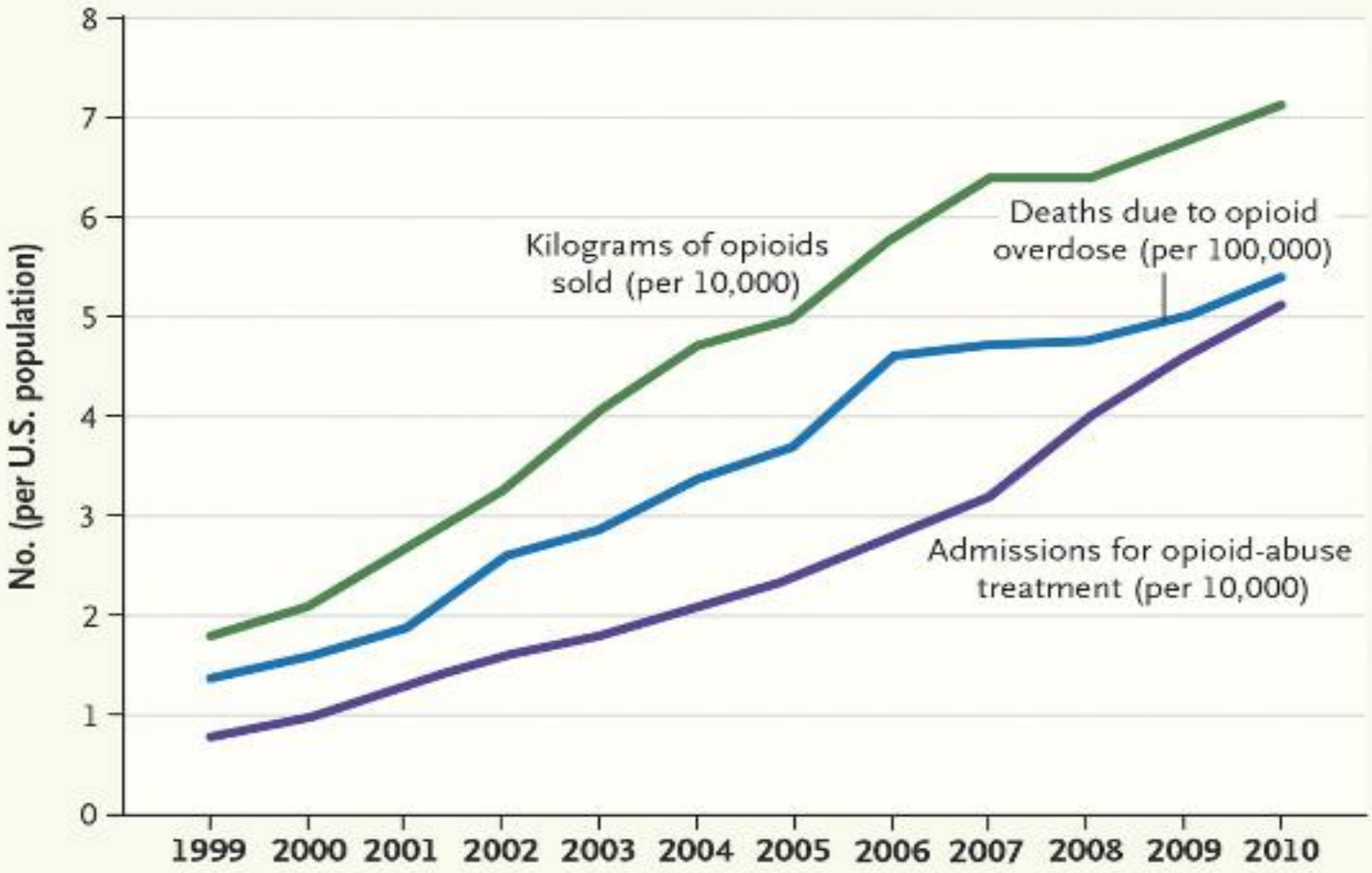
**2011 data**

In U.S., 4.6% of those 15 to 64 qualify for Social Security disability payments

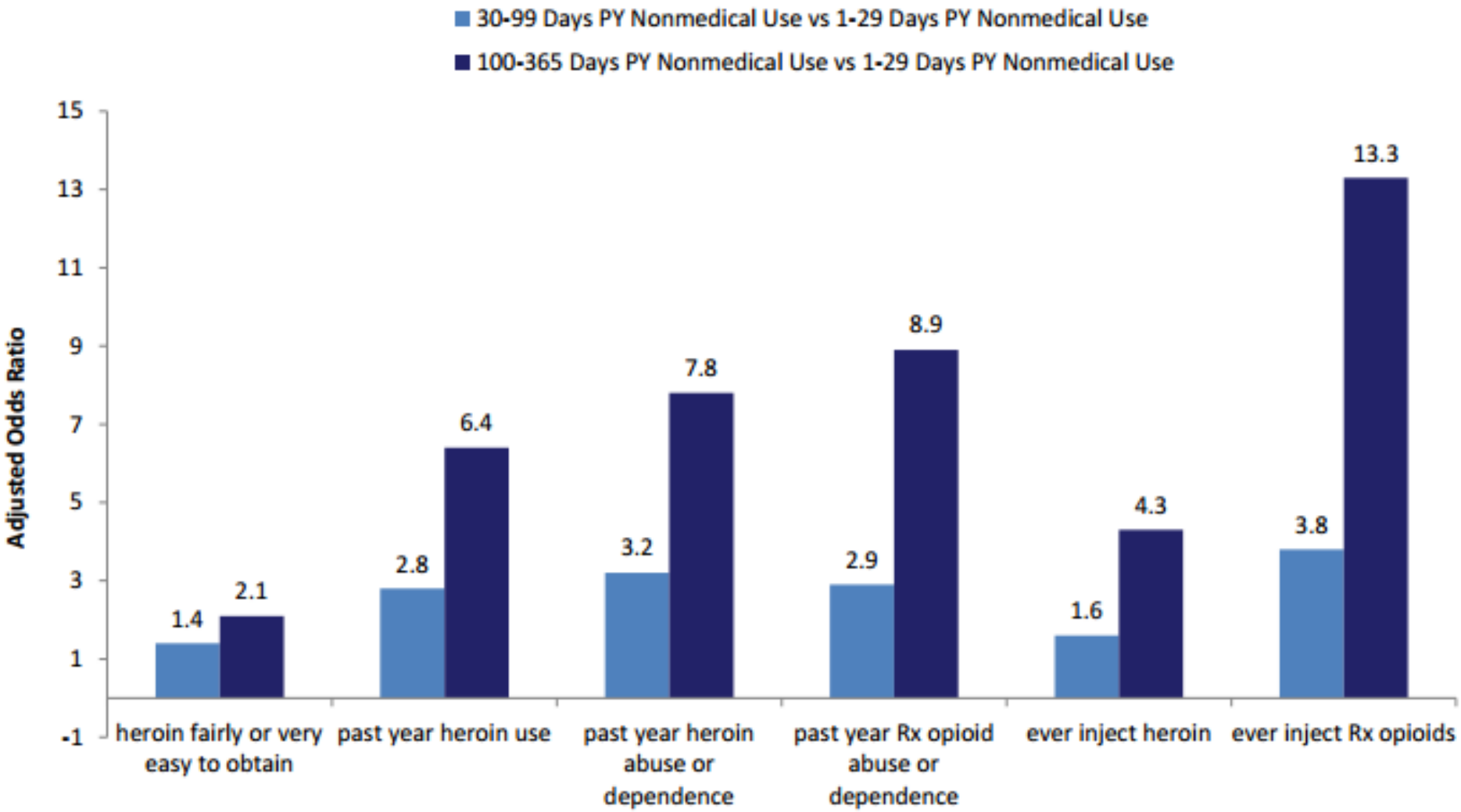
- ***High: 10% to 27.6% of adults (15-64) receiving disability***
- ***Above Average: 7.6% to 9.9% receiving disability***
- ***Moderate: 4.7% to 7.5%***
- ***Below Average: 3.6% to 4.6%***
- ***Low: Below 3.5% of adults receiving disability***

Slide source: http://www.dailyyonder.com/files/images/DisabilityMap.jpg

# Increasing Rates of Opioid Analgesic Rx Correlate with Increasing Rates of Opioid Overdose Deaths & Opioid-Related Admissions to Addiction Treatment Programs

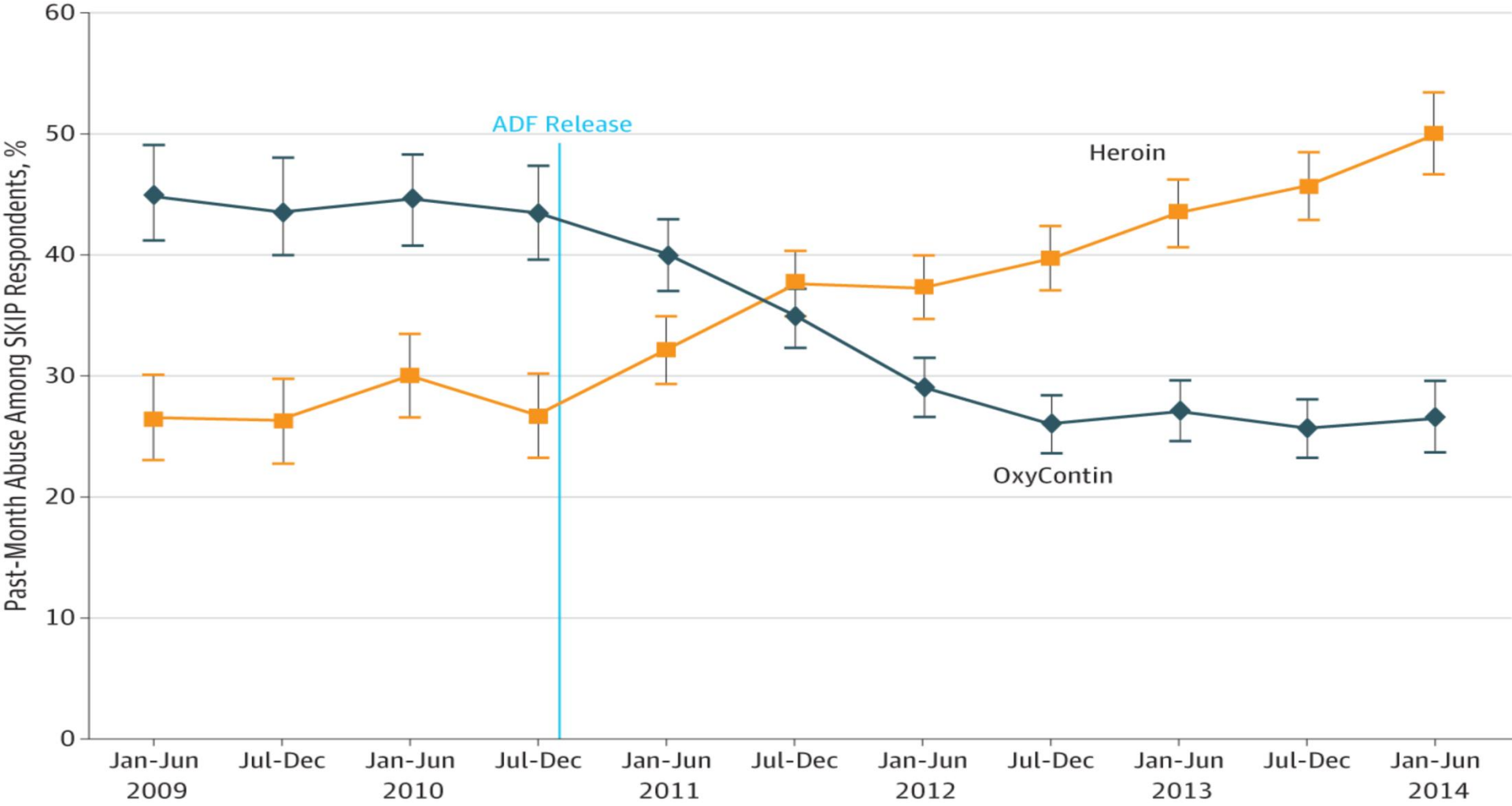


# Risk of heroin use and high-risk behaviors by frequency of Rx opioid nonmedical use




Source: Jones, C.M., Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers – United States, 2002–2004 and 2008–2010. Drug Alcohol Depend. (2013). Slide credit – Grant Baldwin, CDC

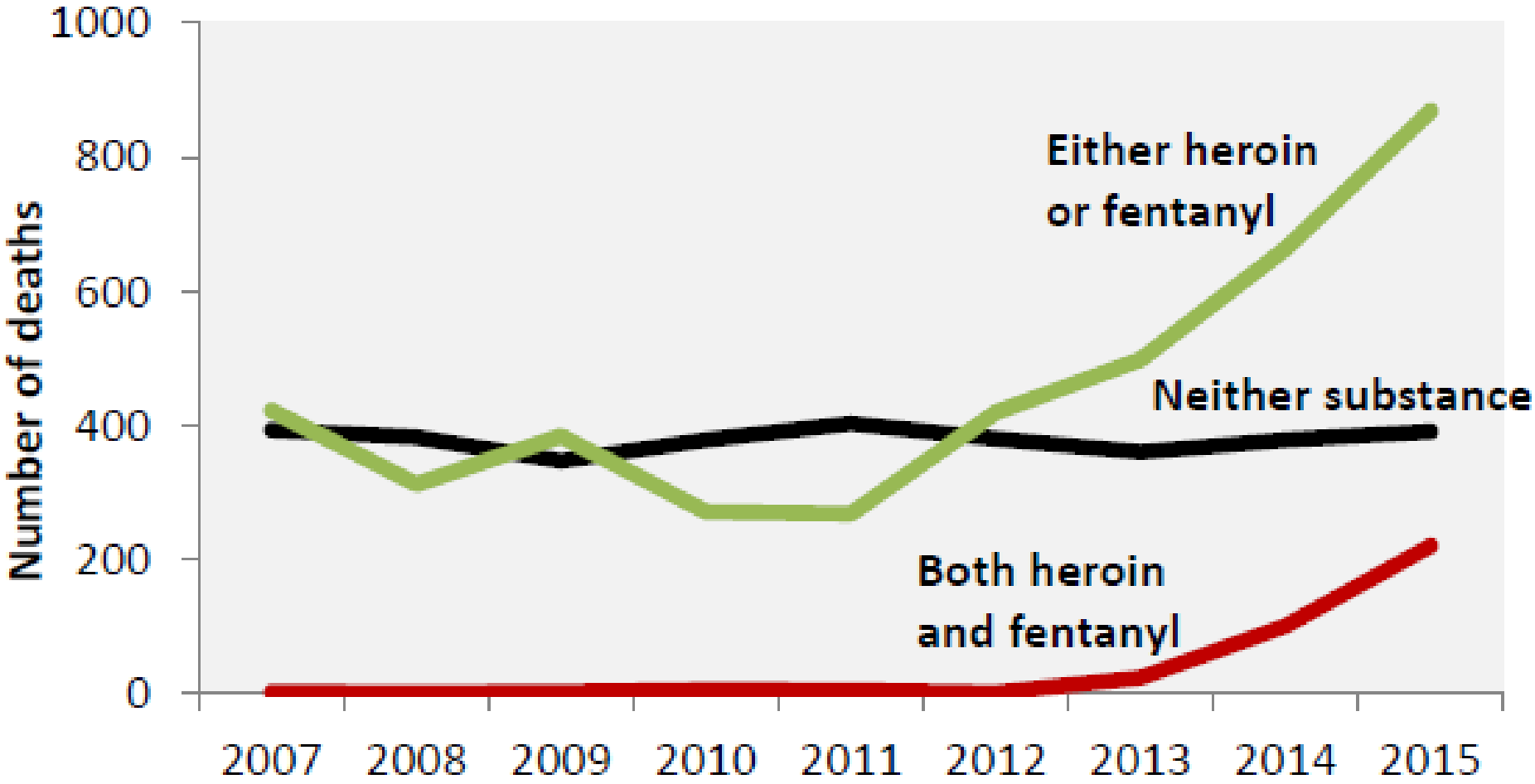
# Effect of Introduction of OxyContin "Abuse Deterrent Formulation" (ADF)




From: **Abuse-Deterrent Formulations and the Prescription Opioid Abuse Epidemic in the United States: Lessons Learned From OxyContin** JAMA Psychiatry. 2015;72(5):424-430. doi:10.1001/jamapsychiatry.2014.3013

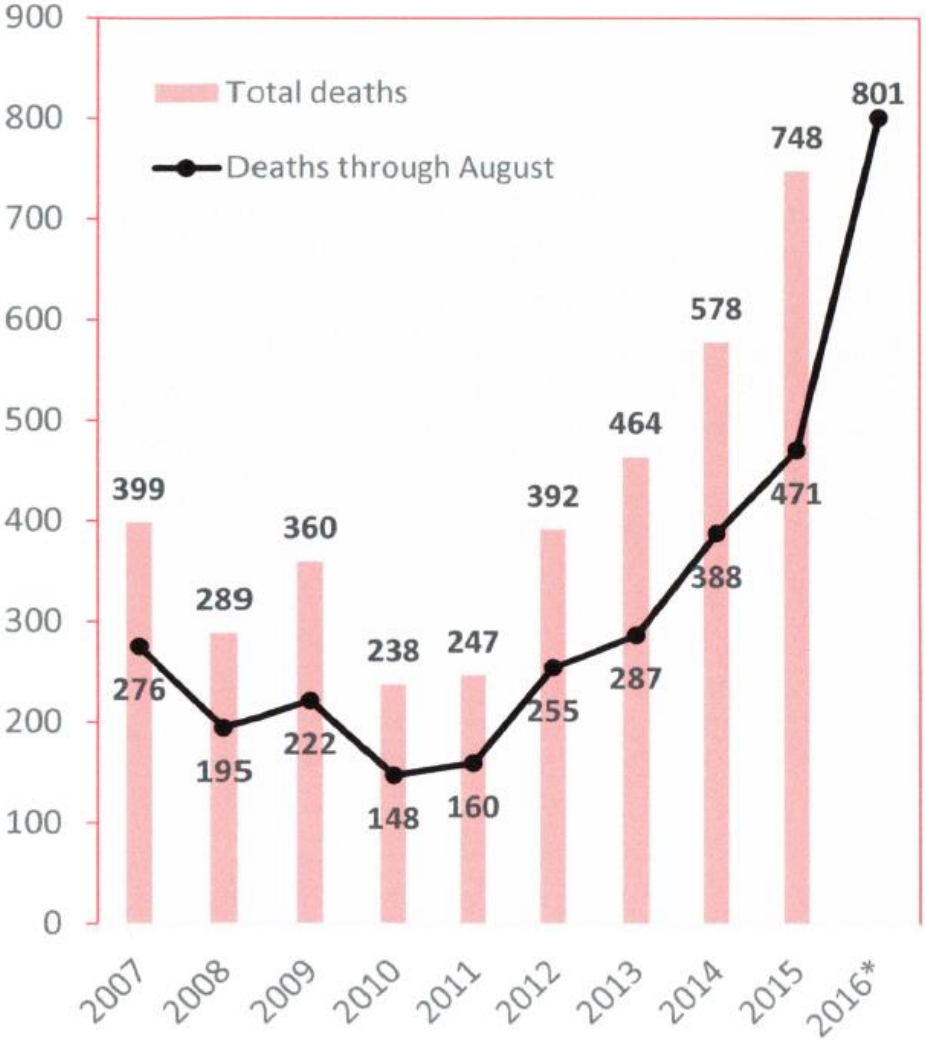
Respondents Who Endorsed Past-Month Use of OxyContin or Heroin Before and After the Introduction of an Abuse-Deterrent Formulation (ADF)Respondents include 10 784 participants in the Survey of Key Informants' Patients (SKIP) program (mean number per half-year, 991). Data are presented in 6-month increments from January 1, 2009, through June 30, 2014, and are expressed as percentages (95% CI [error bars]), with a $\chi^2$ test for trend significance of $P < .001$ during the study period. The ADF was released in August 2010. OxyContin is a proprietary formulation of oxycodone hydrochloride.

# Overdose Deaths in Maryland



# Maryland Overdose Deaths, Ctd.

## Heroin-Related




## Fentanyl-Related

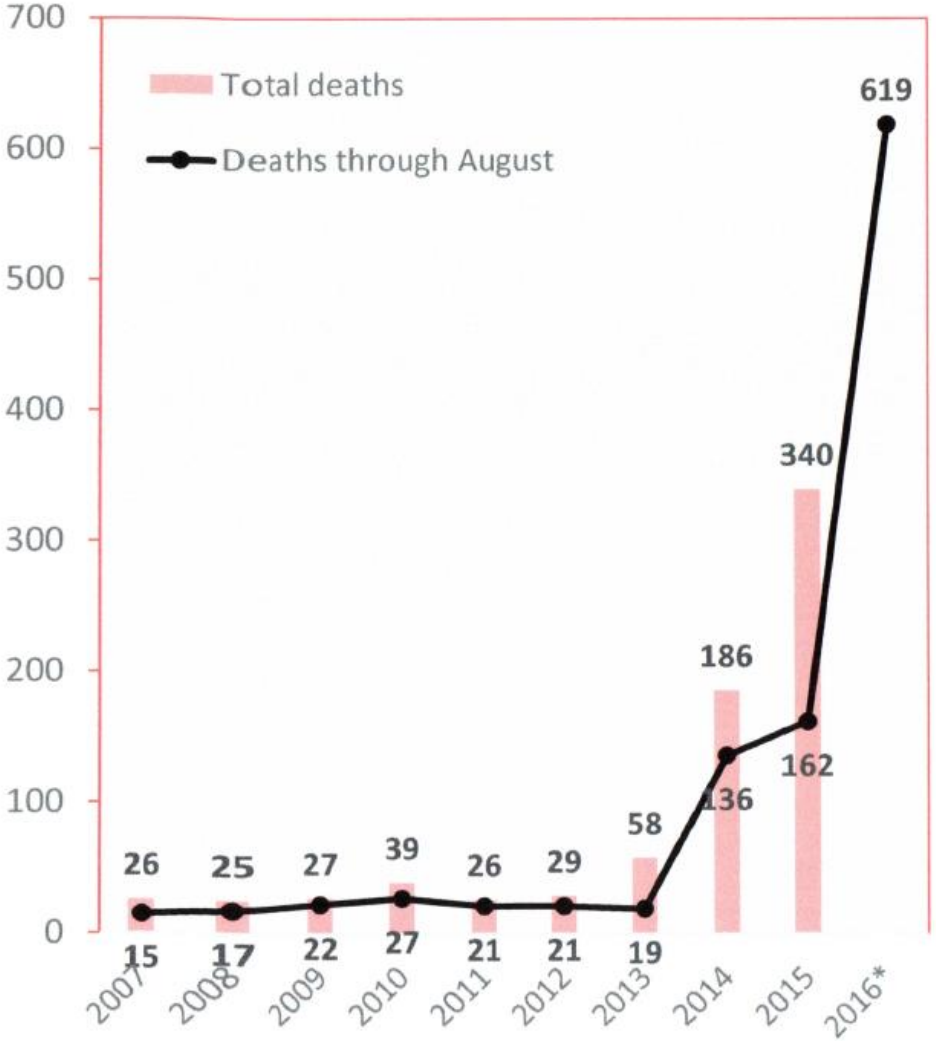
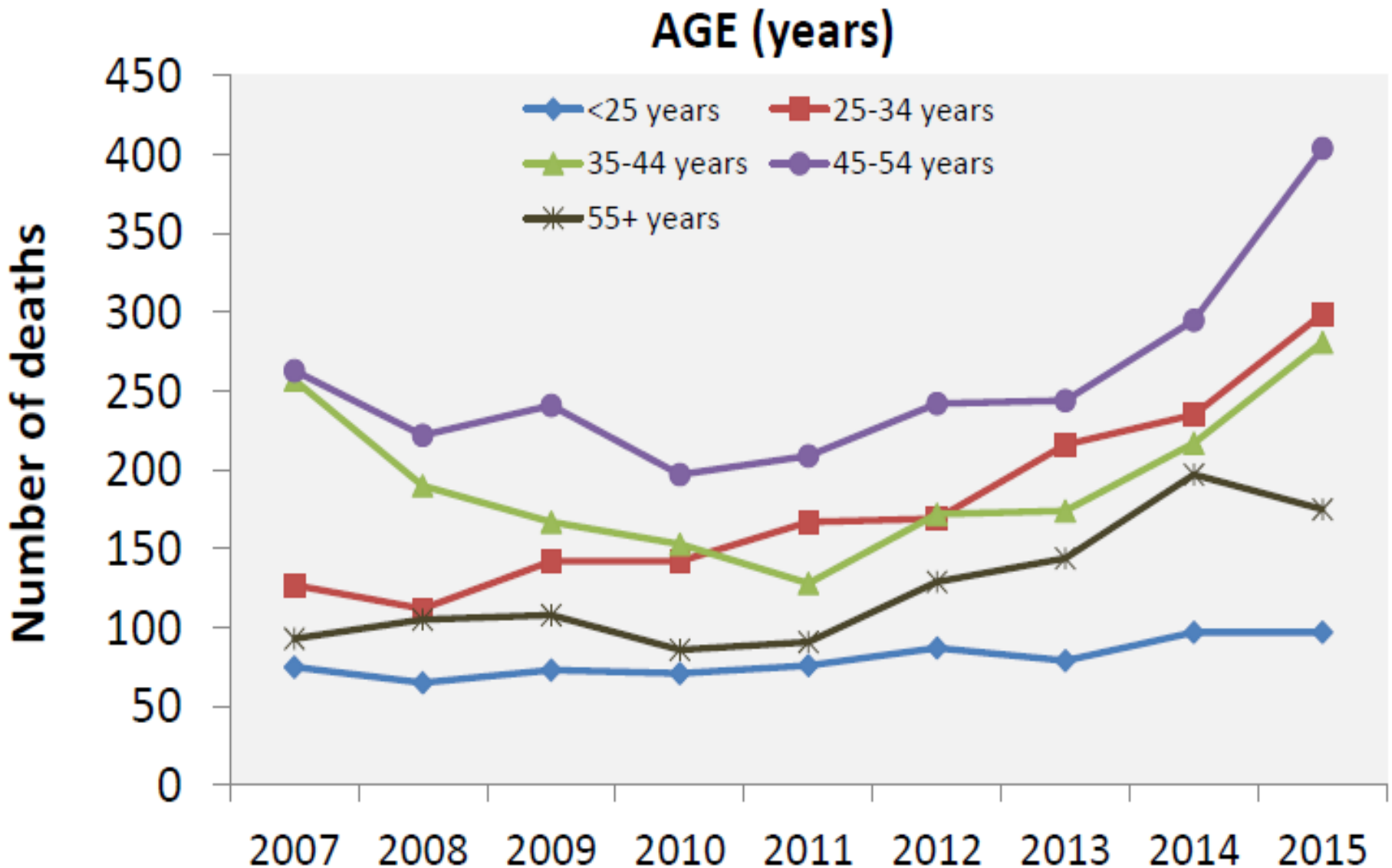
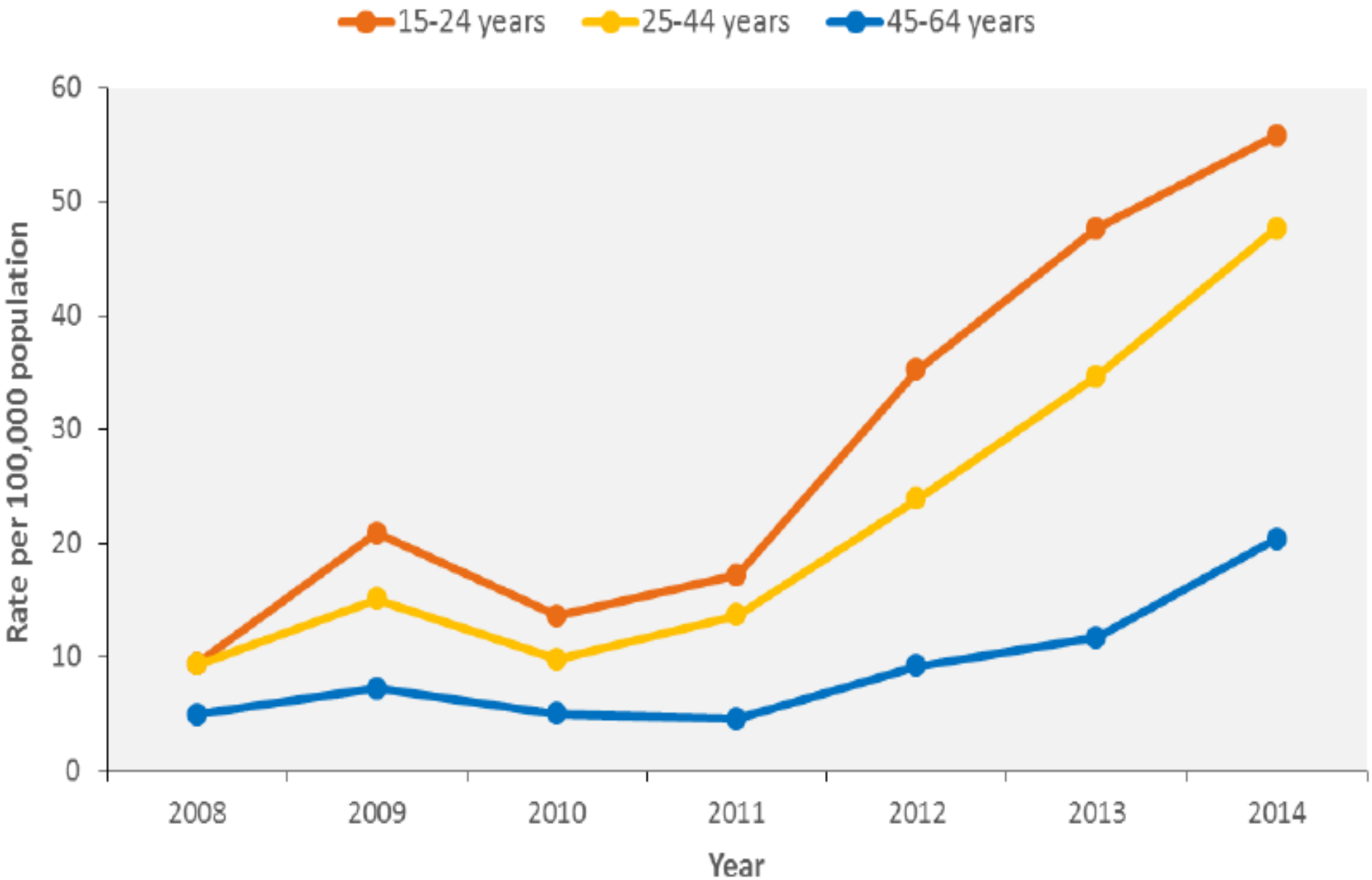


**Figure 3. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2015.**

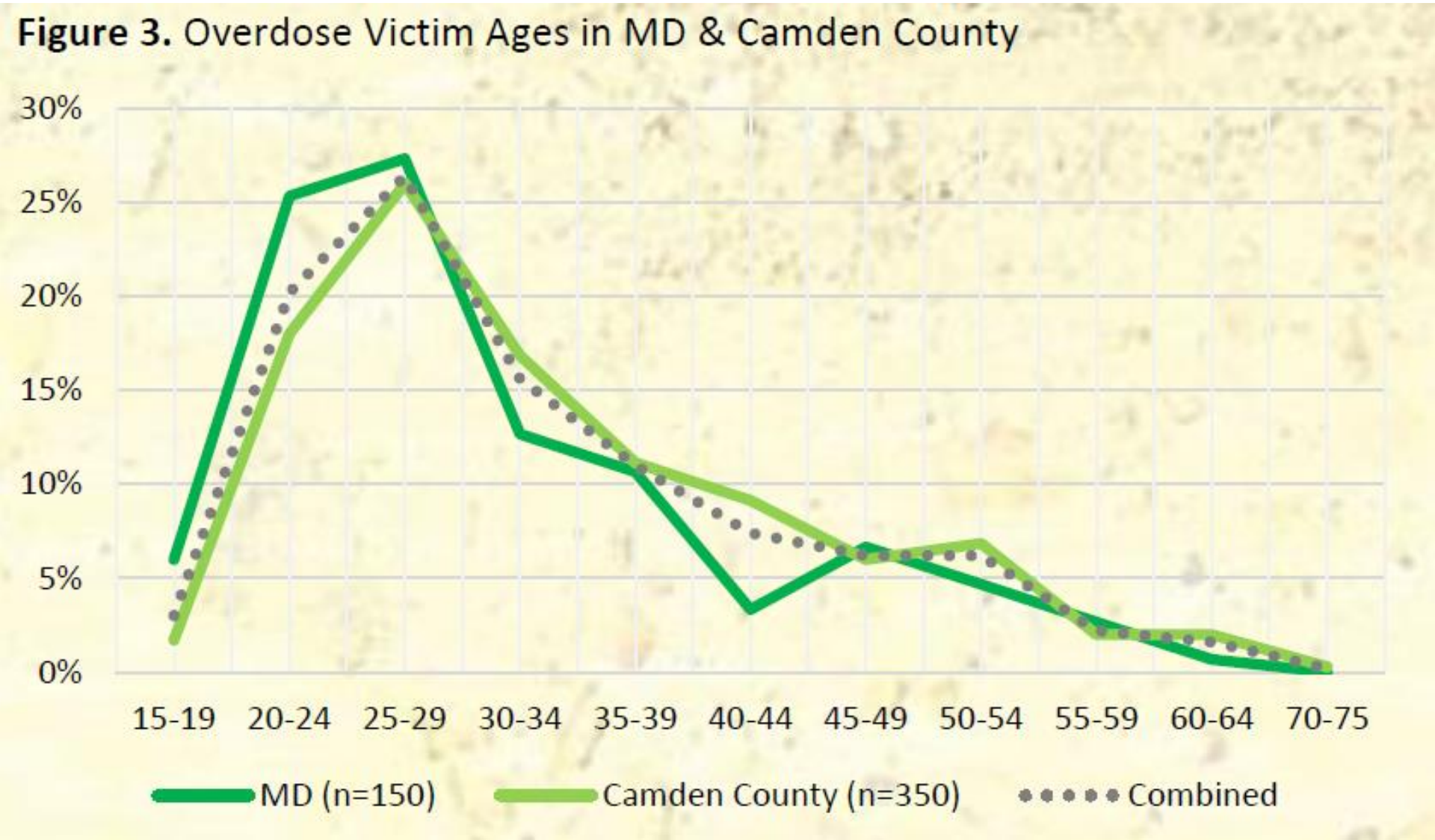


# Figure 58. Crude Rates for Heroin-related Emergency Department Visits by Age Group: Maryland, 2008-2014*



**Age of Suspected Overdose Victims Administered Naloxone by Law Enforcement Officers in Maryland and Camden County, NJ**

Engelmann, B. *Naloxone and Law Enforcement Officers in Maryland: Pre- and Post-Training Knowledge and Opinion Survey Results and Naloxone Administration Characteristics from 2014-2016 Incident Data* ,Univ. of MD, Center for Safe Solutions, June 2016.



# Components of a Public Health Strategy

***Basic Infrastructure for Strategic Planning***

- Improve addiction/overdose epidemiology, surveillance & program evaluation capacity

***Primary Prevention***

- Reduce inappropriate opioid Rx & misuse
- Improve awareness of epidemic and opioid-related risk

***Secondary Prevention***

- Systematically screen for opioid use problems in medical and other social service systems
- Strengthen linkages to treatment and other services that halt disease progress

***Tertiary Prevention***

- Improve access/quality of agonist therapy for opioid addiction
- overdose education & naloxone distribution
- Support expansion of recovery and peer support networks and service systems

# Overdose Fatality Review

http://bha.dhmh.maryland.gov/OVERDOSE_PREVENTION/Pages/OFR-.aspx

- Structure:
  - Modeled after existing mortality review programs (Child Fatality Review)
  - Multi-agency/multi-disciplinary team assembled at jurisdictional level to conduct confidential reviews of overdose death cases
  - DHMH provides TA & death records to local OFR teams
  - Team members bring info about decedents from respective agencies for review
- Goal to prevent ***future*** deaths by:
  - Identifying missed opportunities for prevention and gaps in system
  - Building working relationships b/t local stakeholders on OD prevention
  - Recommending policies, programs, laws, etc. to prevent OD deaths
  - Informing local overdose prevention strategy
- Legal authority:
  - 2014: specific state law
  - Requires healthcare providers and gov. agencies disclose data to teams
  - Civil immunity protections for team members
- History:
  - 2014: 3 pilot jurisdictions; currently 18 teams active
  - 200+ cases reviewed to date

# Notable OFR Findings

**Decedent factors:**

- Prior overdose(s)
- DUI/DWI history
- Suicide attempts/ideation
- Intimate partner violence (as victim or perpetrator)
- Heavy social services & criminal justice involvement
- Poly-pharmacy
- Pain management
- Occurrence of trauma just before death (loss of a loved one, struggles with child custody, etc.)
- Older drug users with many co-occurring chronic health issues
- Involvement w/ treatment services, but poor care coordination & follow through on referrals

**Incident factors:**

- Deaths at home, often w/ family/housemates at home too
- Hotels and motels
- Recent release from jail
- Alcohol along w/ opioids in COD

# Prescription Drug Monitoring Program

- Authorized by law in 2011; live in 2013
- Goals:
  - Improve healthcare providers' ability to identify & intervene w/ patients w/ Rx drug issues
  - Identify and address potentially illegitimate prescribing or dispensing by providers
  - Support legitimate investigations by law enforcement, licensing boards & other regulatory authorities
- Requires reporting info on drug, patient, prescriber & dispenser for most controlled substances dispensed in MD
- Providers get real-time online data access to identify patients receiving drugs from other parties

# PDMP Ctd.

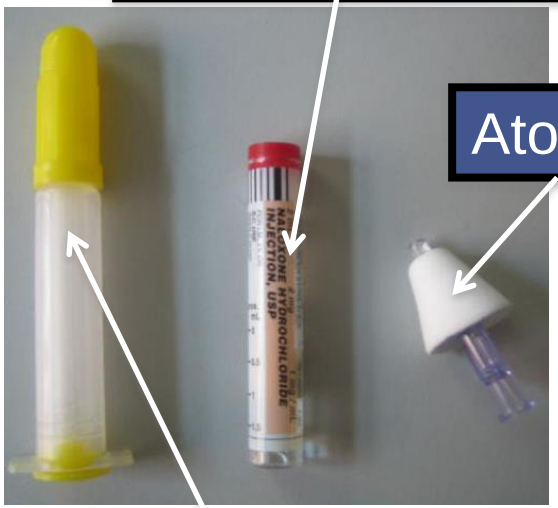
- DHMH can analyze data to ID patients w/ multi. providers and send notifications to the prescribers
- 2016 legislation:
  - Requires all controlled substance prescribers and pharmacists to register w/ PDMP by 7/1/17
  - Requires prescribers to query patient when prescribing opioid or benzo starting 7/1/18
  - Allows DHMH to analyze data to spot illegal/inappropriate prescribing/dispensing and conduct outreach/education for providers

# What is *naloxone*? (aka "Narcan")

- ***Opioid antagonist*** medication
- Reverses opioid overdose by binding with & blocking opioid receptors => restoring breathing
- No potential for "abuse" or getting high
- Not a controlled substance
- No evidence availability "enables" more or riskier drug use
- No effect on someone who hasn't taken opioids
- Side effects are minimal and rare
- Safe for children and pregnant women
- Intramuscular, intranasal or intravenous routes of administration
- Can precipitate withdraw & wear off in 30-90 minutes
- **Available by Rx only per federal regulation**

# Intramuscular Naloxone

# Intranasal Naloxone



# Overdose Response Program

http://bha.dhmh.maryland.gov/NALOXONE/

- 2013: "3rd party" naloxone law
- DHMH authorizes orgs to train/certify lay people on opioid OD recognition & response w/ naloxone
- Statewide "standing order" for pharmacist dispensing to trainees w/o Rx
- Over $1.8M in grant funding to LHDs authorized since 2014
- 58 authorized orgs including community orgs, addiction Tx programs, correctional med providers, police & EMS agencies, pharmacies, all LHDs
- 35k people trained; 37k doses dispensed; 1181 naloxone uses reported voluntarily