



# The Opioid Overdose Epidemic

## Epidemiology and Trends

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**Patients with mental health or substance use disorders are at increased risk for nonmedical use and overdose from prescription opioids...appropriate screening, identification, and clinical management by health care providers are essential parts of both behavioral health and chronic pain management and overdose prevention.**

***Thomas R. Frieden, MD, MPH***

***Director, Centers for Disease Control and Prevention***

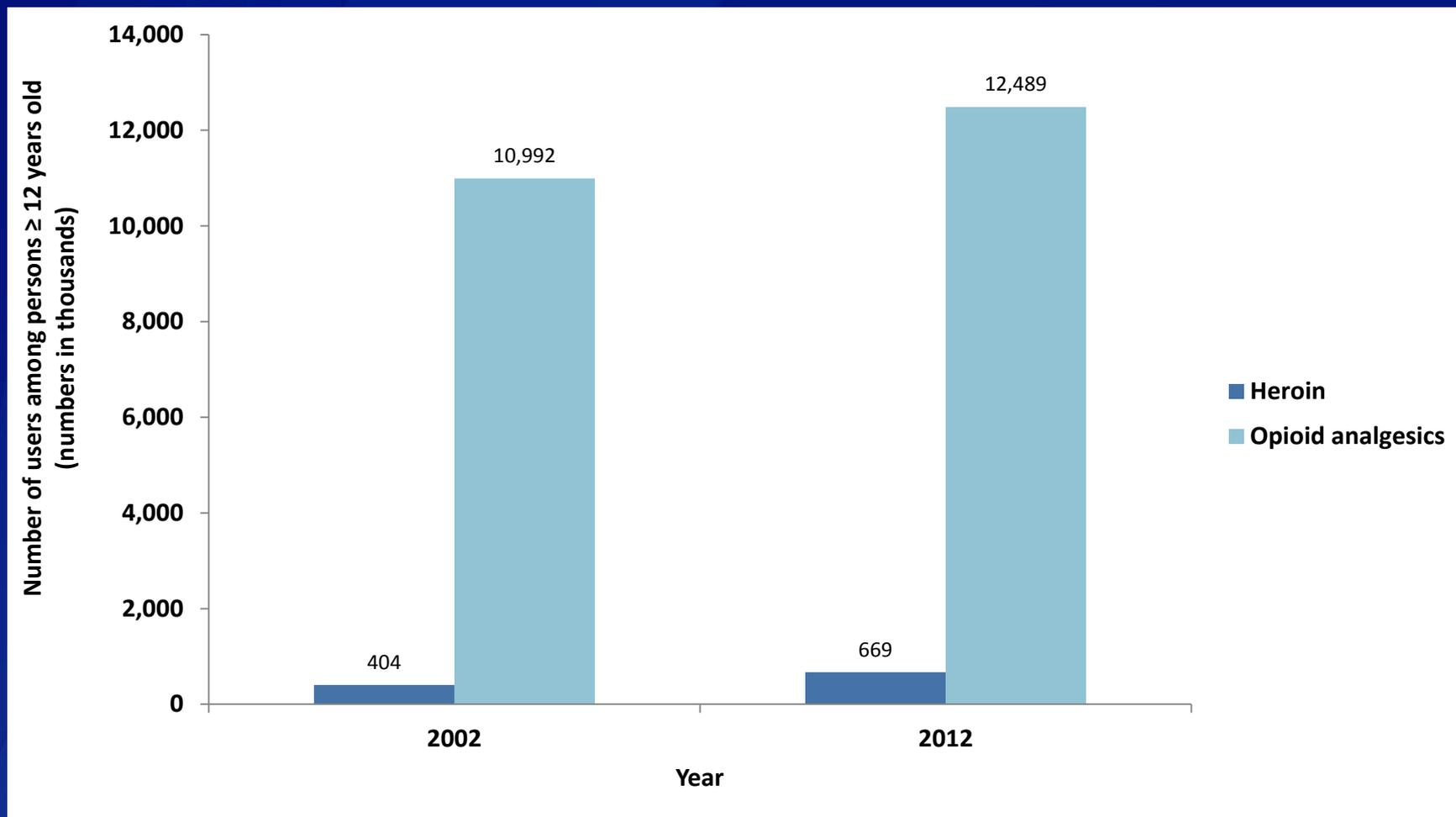
***February 20, 2013***

# Trends and Epidemiology

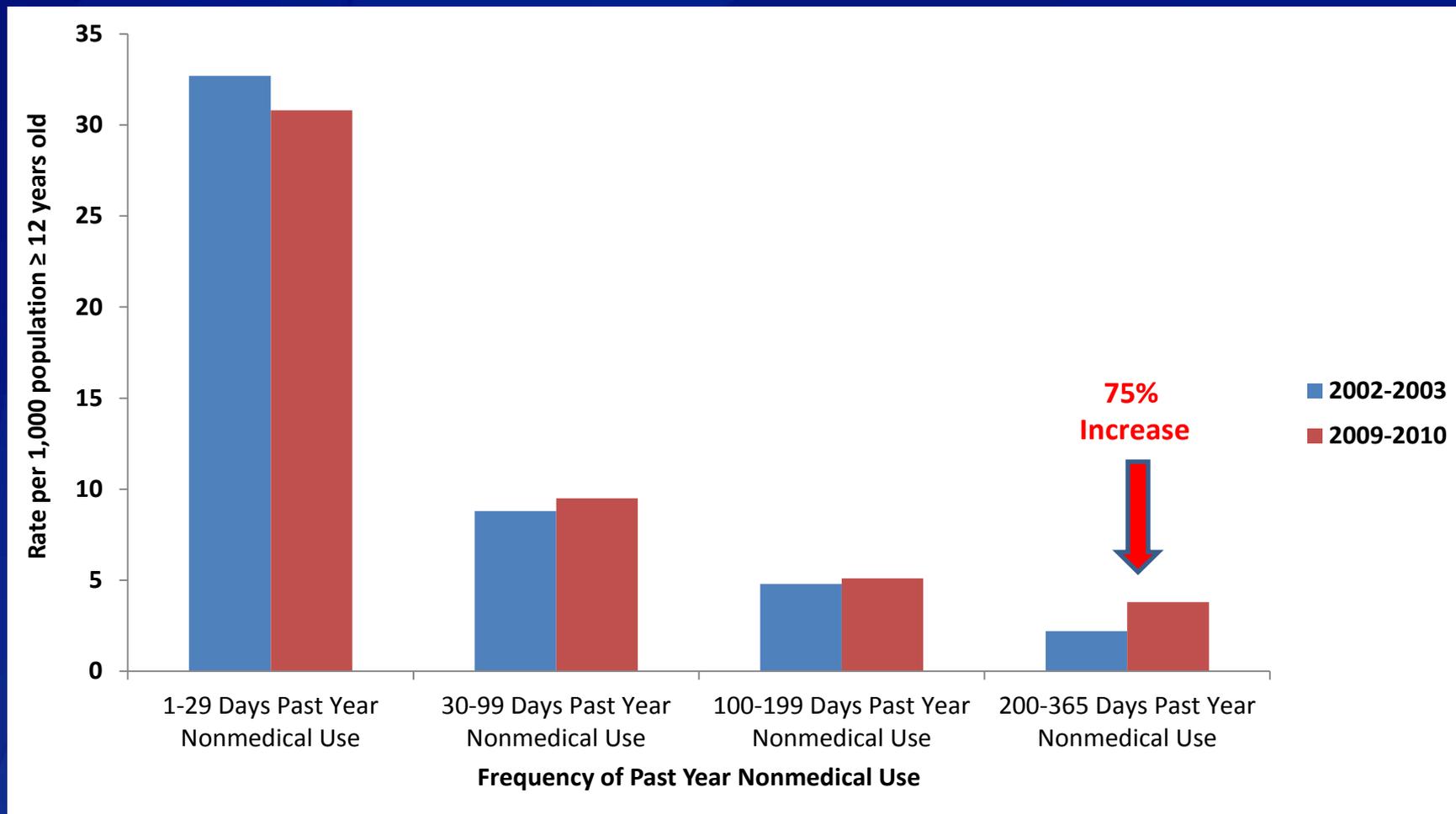
- ❑ **Nonmedical use**
- ❑ **Relationship between opioids and heroin**
- ❑ **Emergency department visits**
- ❑ **Dependence and abuse**
- ❑ **Overdose deaths**
- ❑ **Economic costs and additional public health consequences**

# TRENDS IN USE

# Past year nonmedical use of opioid analgesics and heroin have increased in the US

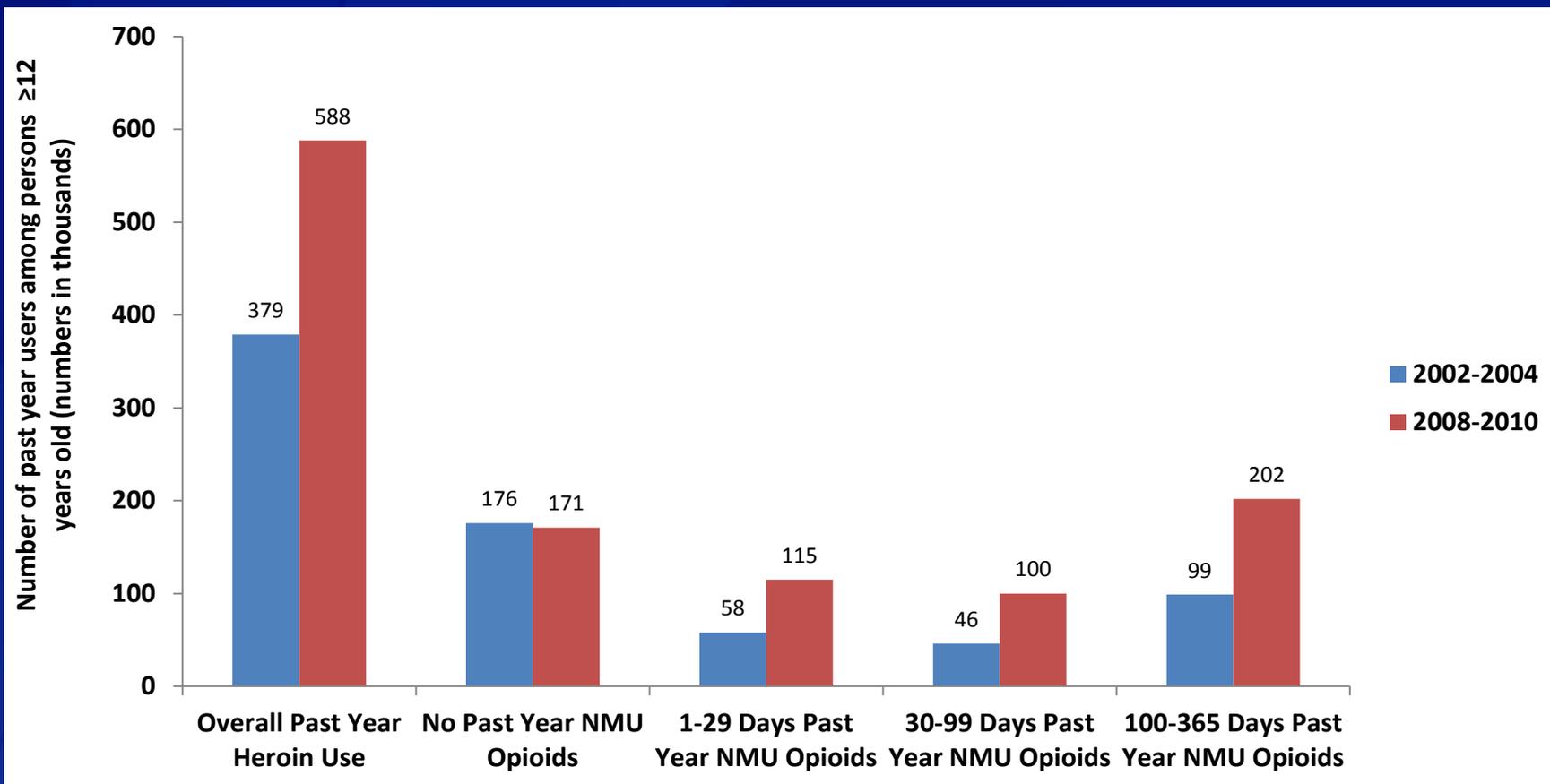


# Chronic nonmedical use of opioid analgesics has increased more than less frequent use



Jones CM. Frequency of prescription pain reliever nonmedical use, 2002-2003 and 2009-2010. Arch Intern Med. 2012 Sep 10;172(16):1265-7;

# Increase in heroin use has occurred among people who were past year nonmedical users of opioid analgesics



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), <http://dx.doi.org/10.1016/j.drugalcdep.2013.01.007>

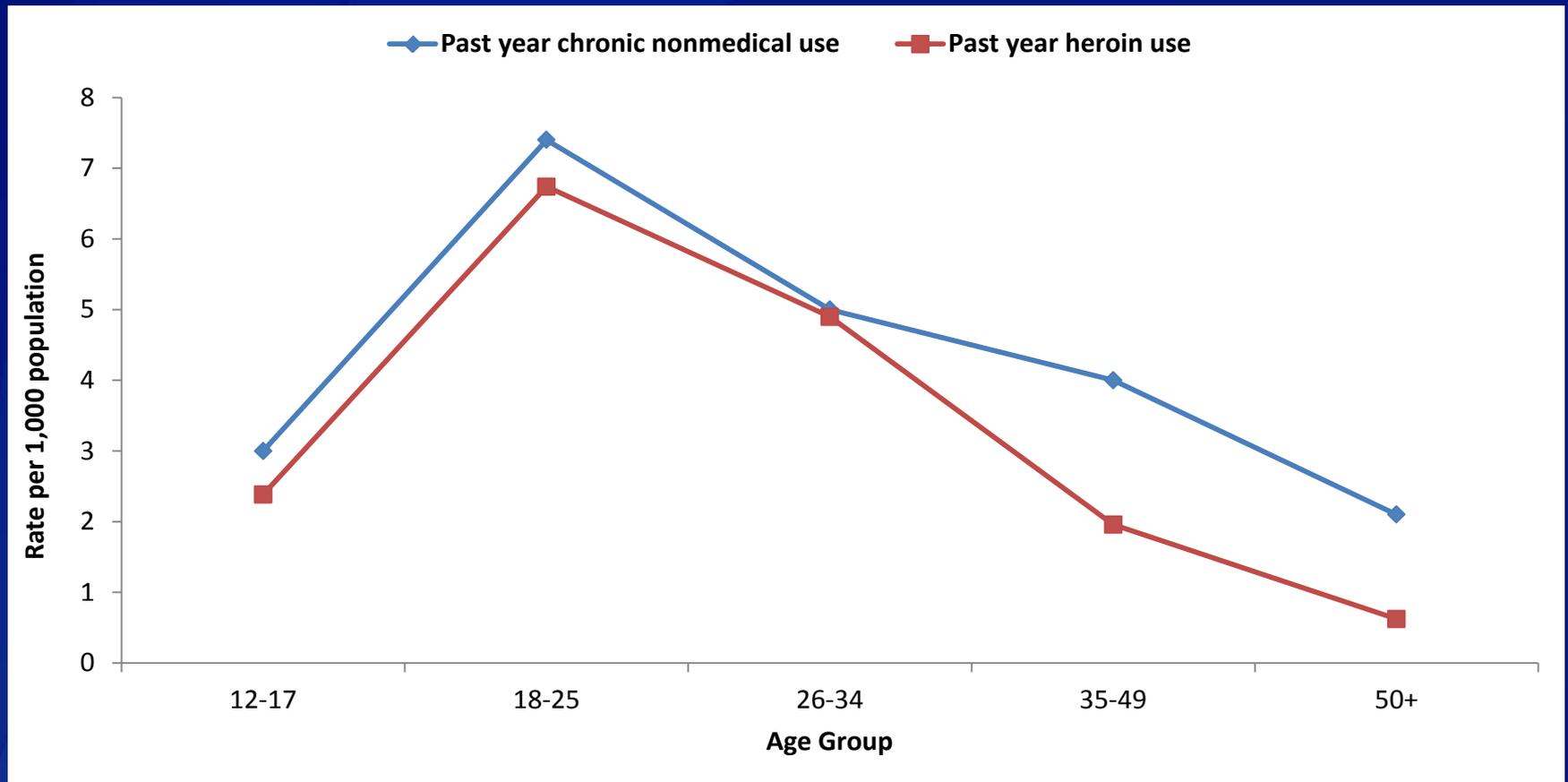
## Frequent nonmedical users of opioids more likely to engage in risky use behaviors, US, 2008-2010.

Characteristic	1-29 Days of PYNMU of Opioid Pain Relievers	30-99 Days of PYNMU of Opioid Pain Relievers	100-365 Days of PYNMU of Opioid Pain Relievers
	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)
Past Year Heroin Use	referent	2.8 (1.7-4.5)	6.4 (3.7-11.1)
Ever Inject Heroin	referent	1.6 (0.9-2.9)	4.3 (2.5-7.3)
Ever Inject Opioid Pain Relievers	referent	3.8 (1.9-7.8)	13.3 (7.7-23.0)
Past Year Heroin Abuse or Dependence	referent	3.2 (1.7-6.1)	7.8 (4.7-12.8)
Past Year Opioid Pain Reliever Abuse or Dependence	referent	2.9 (2.3-3.8)	8.9 (7.1-11.3)
Heroin Fairly or Very Easy to Obtain	referent	1.4 (1.1-1.7)	2.1 (1.8-2.6)

Abbreviations: PYNMU, past year nonmedical use; aOR, adjusted Odds Ratio; 95% CI, 95% Confidence Interval

<sup>1</sup>Odds ratio adjusted for sex, age, race/ethnicity, total family income, and county type

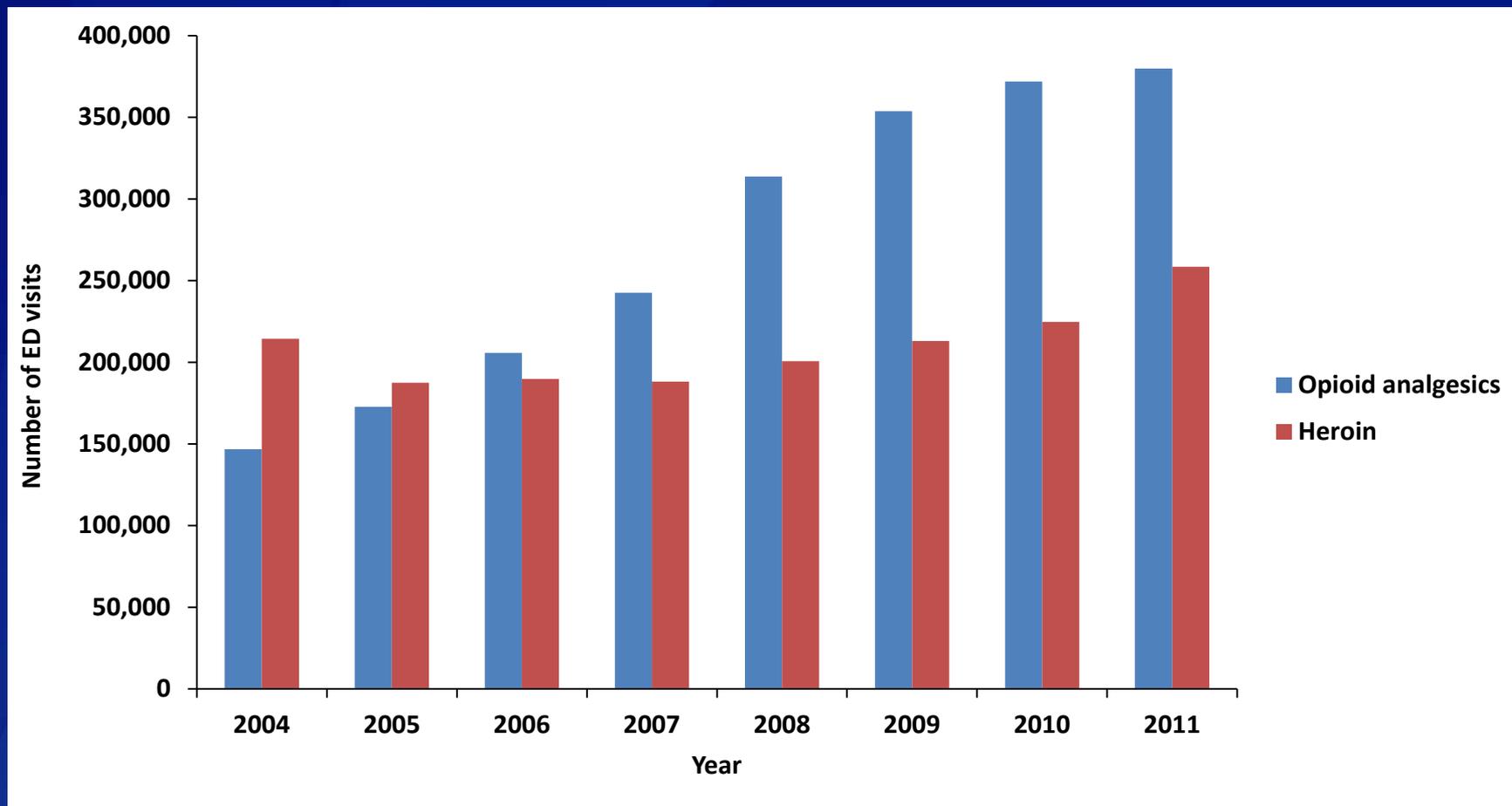
# 18-25 year olds have highest rates of chronic nonmedical use of opioid analgesics and heroin use



Jones CM. Frequency of prescription pain reliever nonmedical use, 2002-2003 and 2009-2010. Arch Intern Med. 2012 Sep 10;172(16):1265-7; SAMHSA NSDUH Public Use File 2011

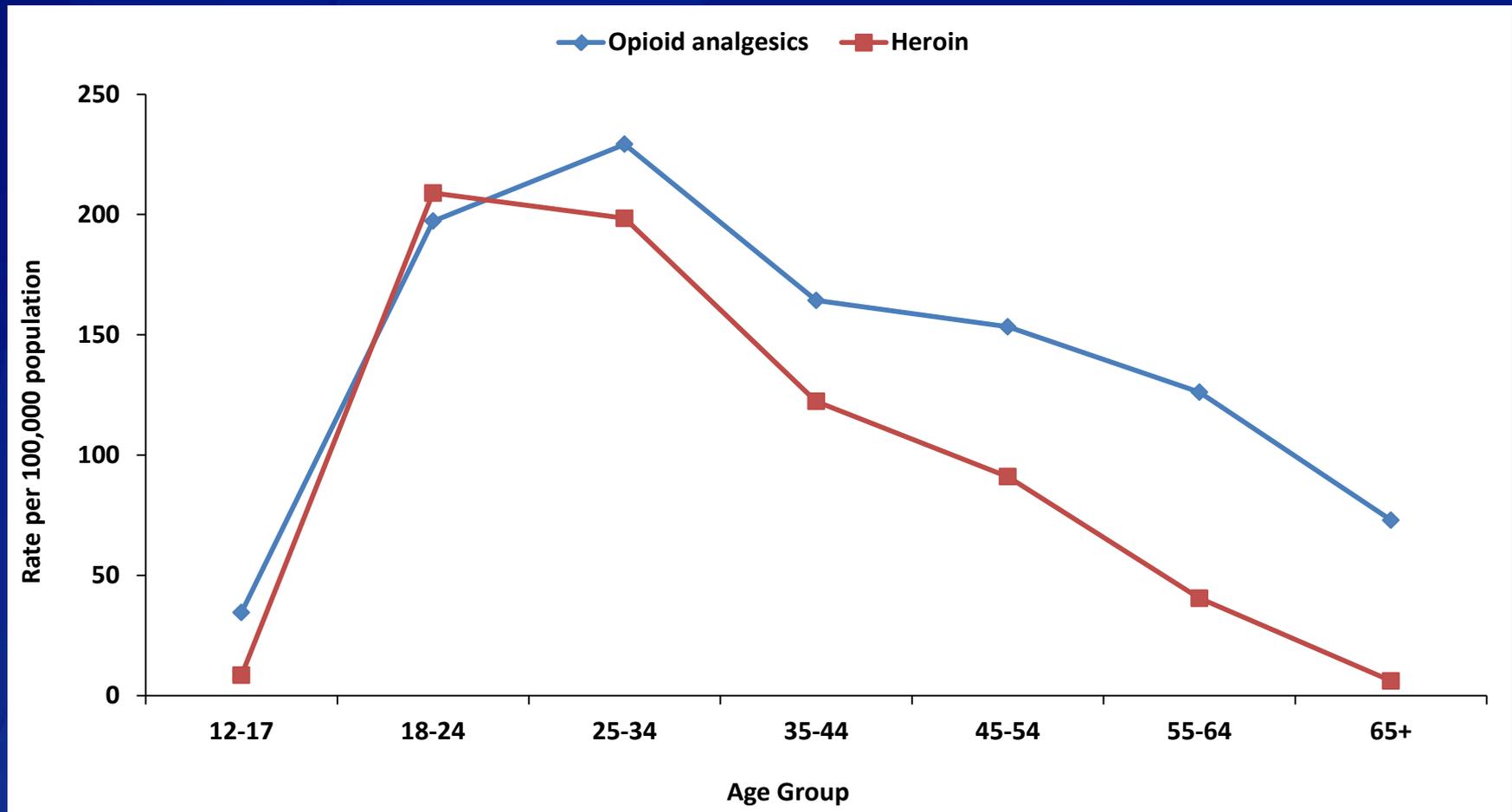
# EMERGENCY DEPARTMENT VISITS

# Increasing number of ED visits due to nonmedical use of opioid analgesics and use of heroin



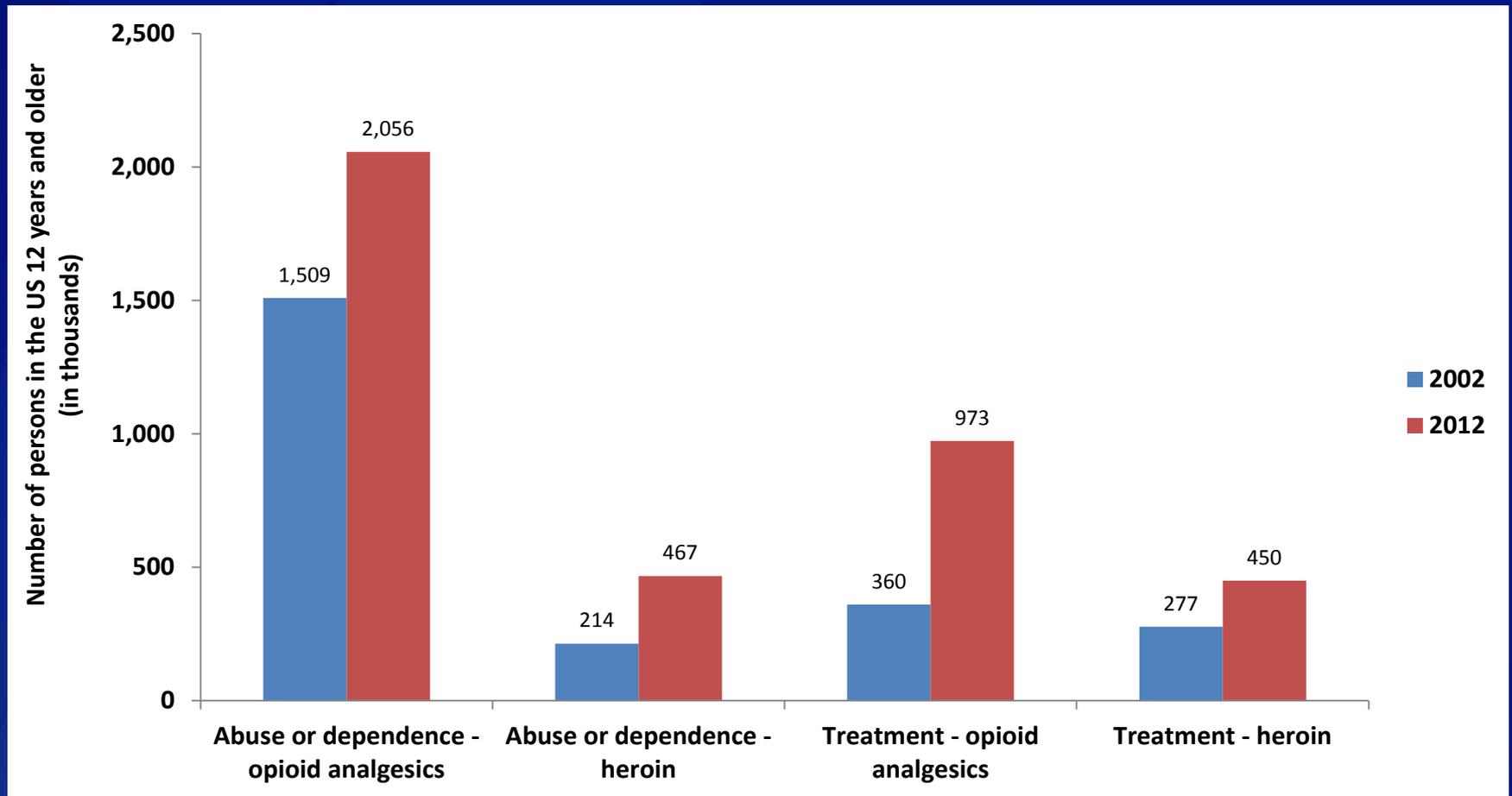
SAMHSA DAWN ED Public Use Files 2004-2011

# 18-34 year olds have highest rates of ED visits due to nonmedical use of opioid analgesics and heroin use

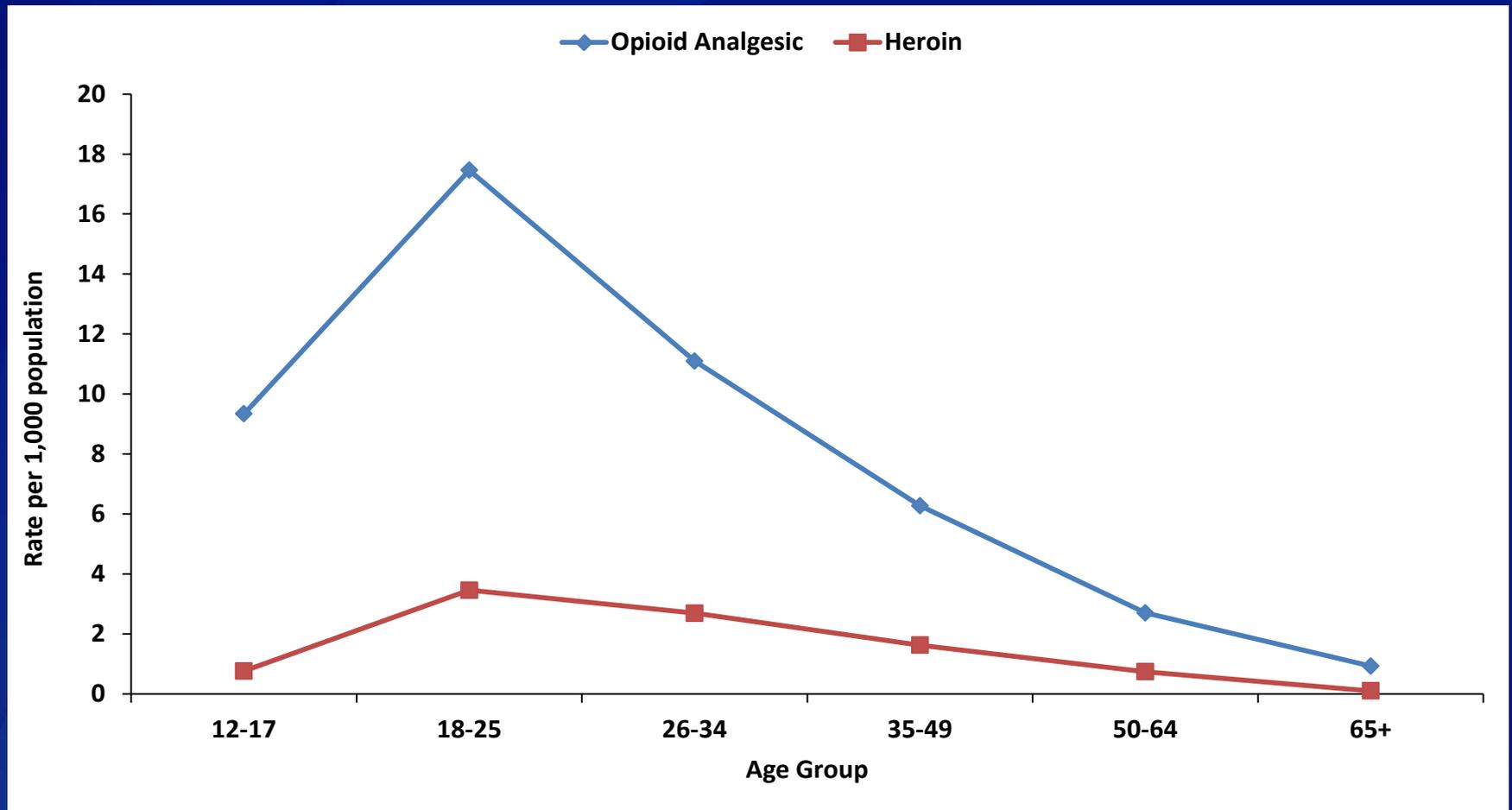


# DEPENDENCE AND ABUSE

# Significant increases in number of people classified with and receiving treatment for dependence or abuse of opioid analgesics and heroin



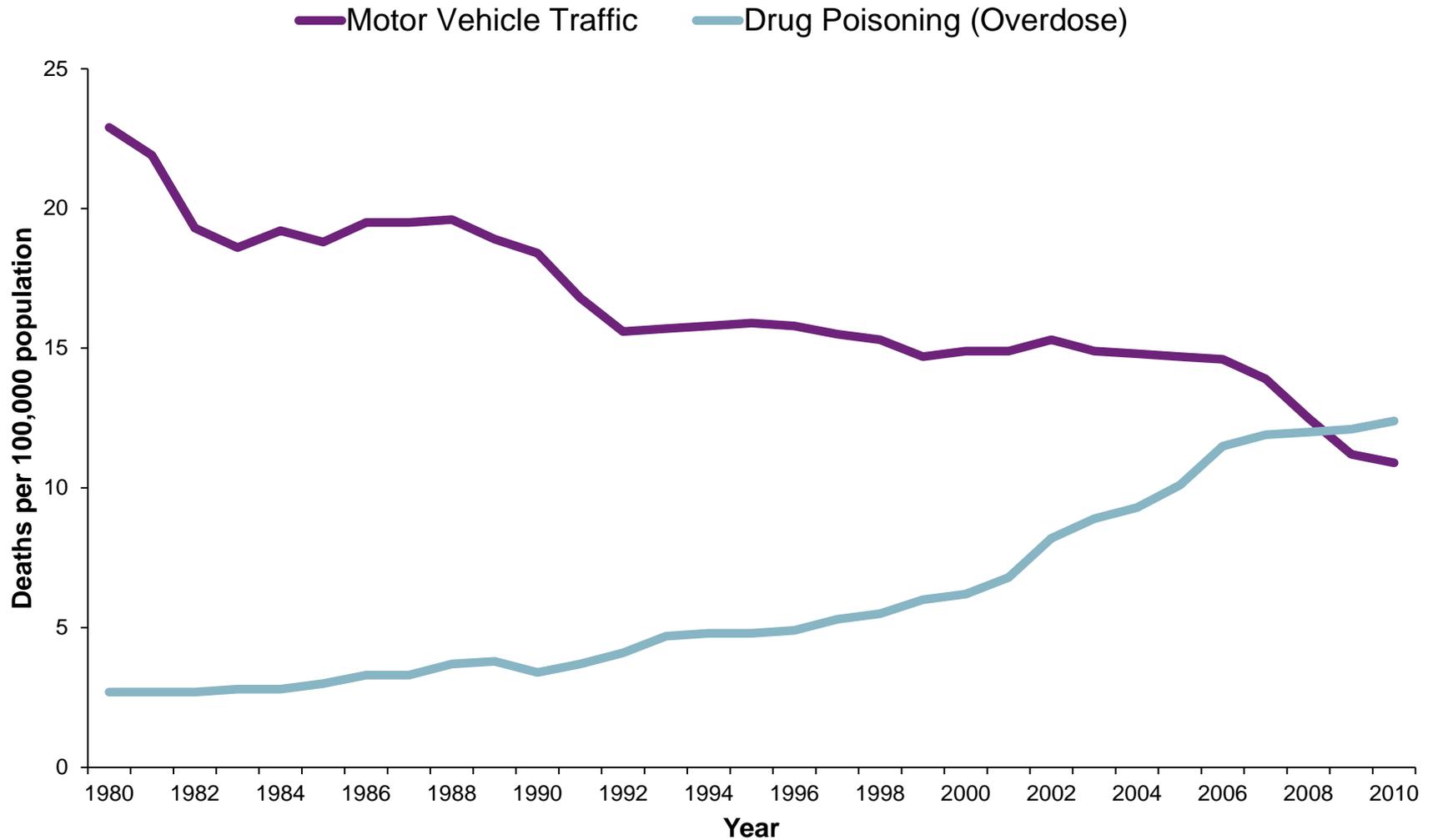
# 18-25 year olds have highest rate of dependence or abuse of opioid analgesics and heroin



SAMHSA NSDUH Public Use Files 2008-2011

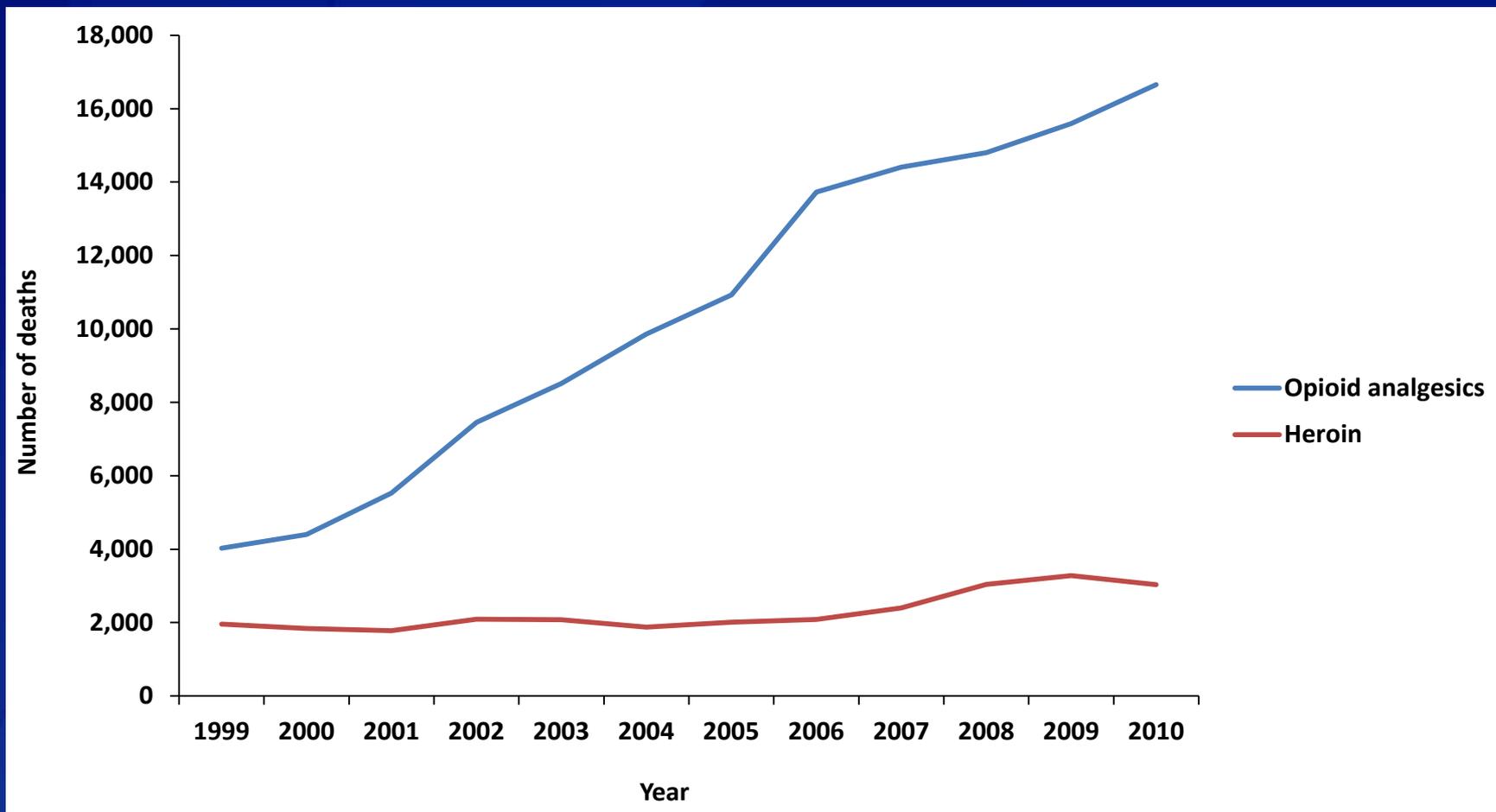
# OVERDOSE DEATHS

# Drug overdose death rates continue to increase; unprecedented death rate



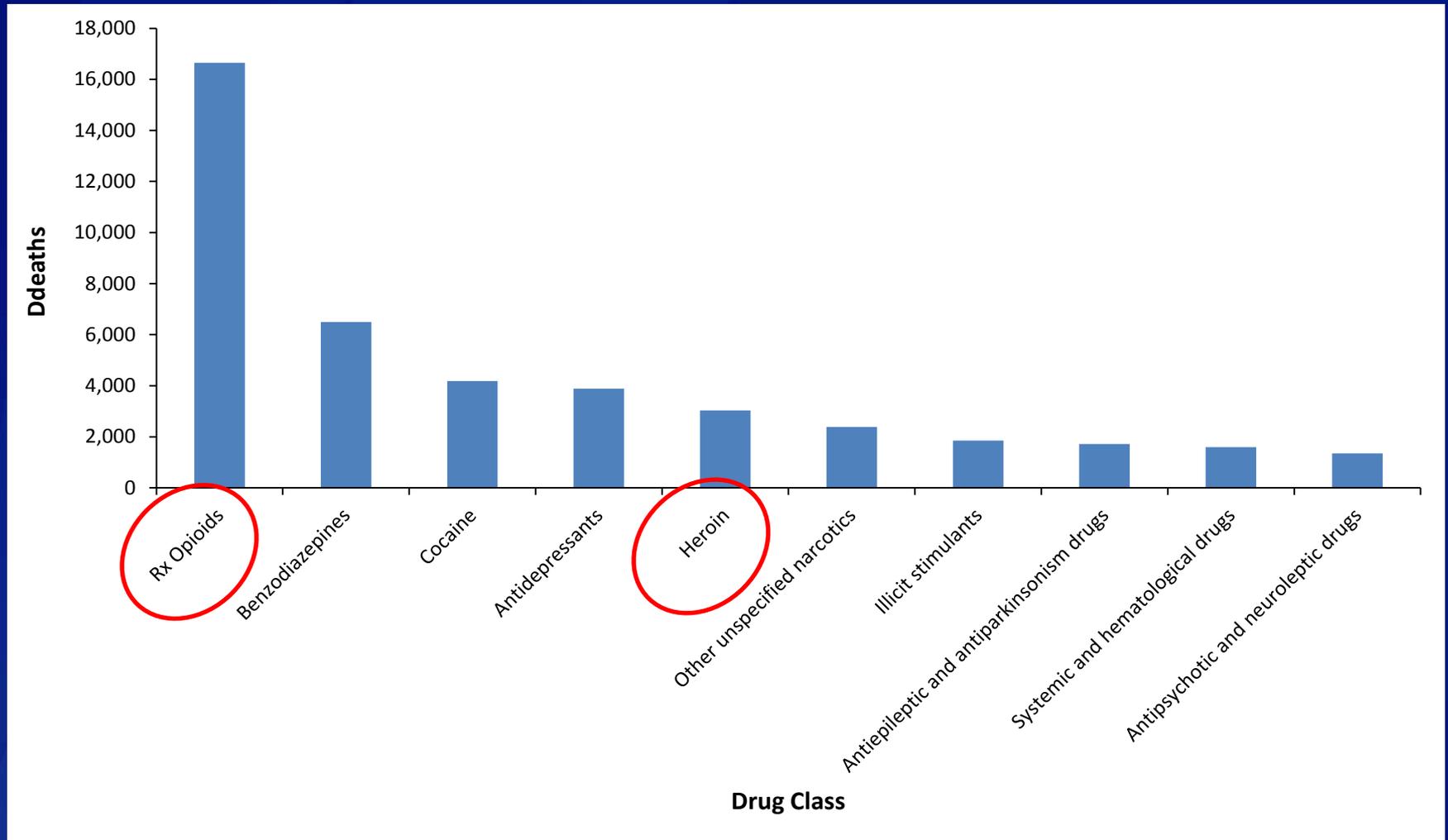
NCHS Data Brief, December, 2011, Updated with 2009 and 2010 mortality data

# 11 years of increases in opioid analgesic overdose deaths; heroin deaths increasing in recent years



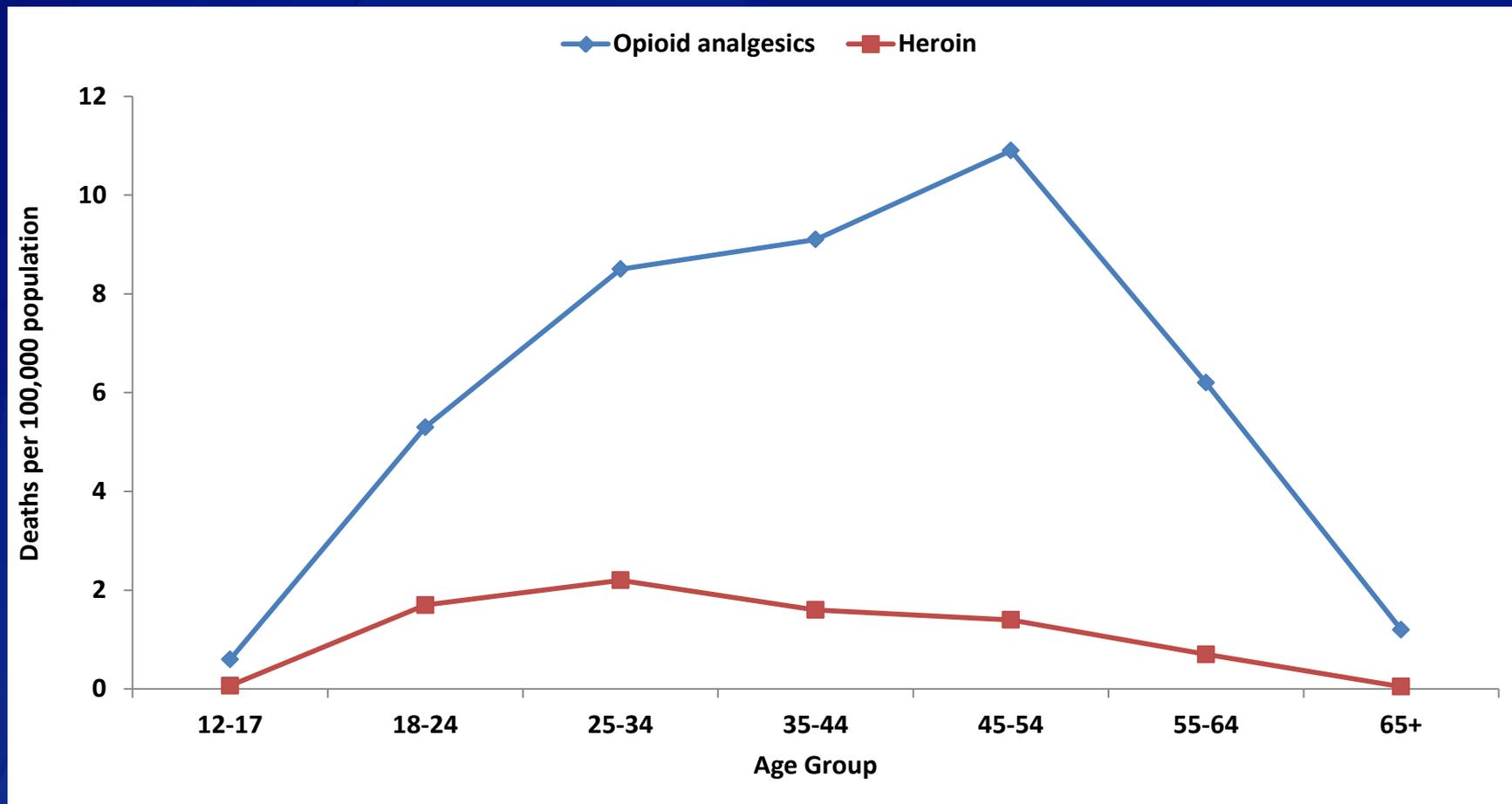
CDC NCHS/NVSS Multiple Cause of Death File 1999-2010

# Opioid analgesics #1 drug involved in overdose deaths; heroin #5



Jones CM et al Pharmaceutical overdose deaths, United States, 2010. JAMA 2013 and CDC/NCHS NVSS MCOD 2010

# Opioid analgesic death rates highest in 45-54; heroin highest in 25-34



CDC NCHS/NVSS Multiple Cause of Death File 2010

# Additional risk factors

## □ Demographics

- Men
- Whites
- American Indians/Alaska Natives

## □ Socioeconomics and Geography

- Medicaid
- Rural vs urban

**ECONOMIC COSTS AND  
ADDITIONAL PUBLIC HEALTH  
CONSEQUENCES**

# Economic costs and additional public health consequences

- ❑ \$72.5 Billion in healthcare costs
- ❑ People who abuse opioids generate, on average, annual direct health care costs 8.7 times higher than nonabusers
- ❑ Increase in hepatitis C
- ❑ Other infectious disease complications
- ❑ Neonatal abstinence syndrome



Coalition Against Insurance Fraud. Prescription for peril: how insurance fraud finances theft and abuse of addictive prescription drugs. Washington, DC: Coalition Against Insurance Fraud; 2007

White AG, Birnbaum, HG, Mareva MN, et al. Direct Costs of Opioid Abuse in an Insured Population in the United States. *J Manag Care Pharm.* 11(6):469-479. 2005

Klevens, R.M., Hu, D.J., Jiles, R., Holmberg, S.D., 2012. Evolving epidemiology of hepatitis C virus in the United States. *Clin. Infect. Dis.* 55 (Suppl.), S3–S9.

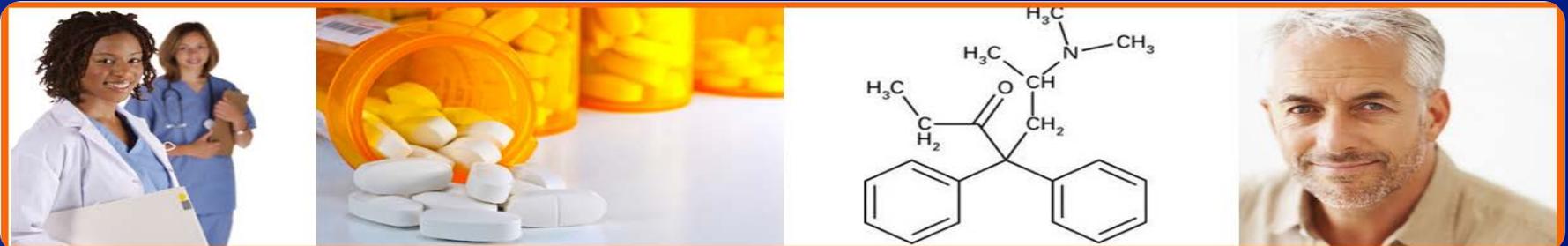
Patrick SW, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. Neonatal abstinence syndrome and associated health care expenditures: United States, 2000-2009. *JAMA.* 2012;9;307(18):1934-1940.

**Deaths and Severe Adverse Events Associated with Anesthesia-Assisted Rapid Opioid Detoxification — New York City, 2012**

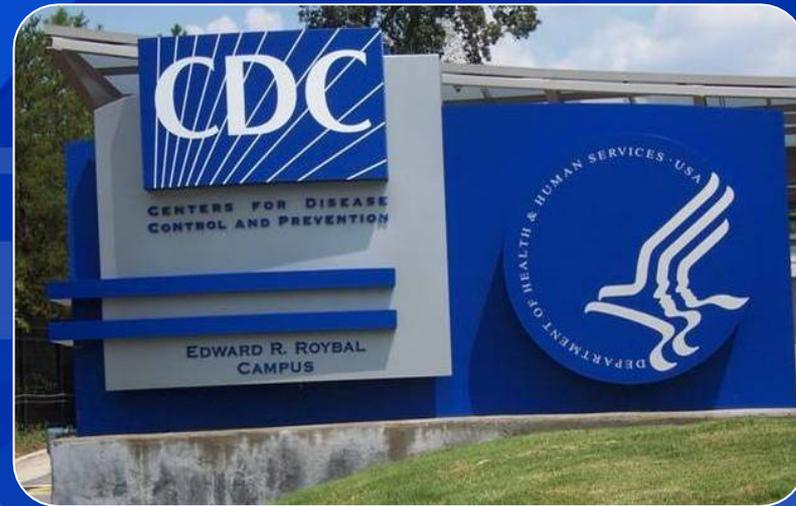
- ❑ Of 75 patients who underwent AAROD at a NYC clinic during January–September 2012, 2 died and 5 others experienced serious adverse events requiring hospitalization.
- ❑ To reduce morbidity and mortality associated with opioid dependence, evidence-based approaches (e.g., medication-assisted treatment) should be used for its management.

# Conclusions

- ❑ Abuse of opioids has increased over the last decade
- ❑ Overdose deaths from these drugs exact significant health, economic, and social consequences
- ❑ People with substance use disorders are at high risk for overdose death
- ❑ This is a complex problem with multiple drivers which requires a multi-pronged response strategy
- ❑ Expanding access to medication assisted treatment is an essential component of this strategy



# Thank You



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The findings and conclusions in this report are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention.



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention