

Societal Use of Opioids and Heroin. How Did We Get Here

YOUR BRAIN ON DRUGS



Justice Cannot Keep Up With The Choices Deep Drug
Addiction Brings.

BUT

We Can Still Make a Difference

Centers for Disease Control

- 115 Americans die everyday of an Opioid overdose
- From 1999 to 2016 more than 350,000 people have died from a drug overdose involving any opioid.
- The cost is 78.5 billion (healthcare, loss of productivity, addiction treatment, law enforcement).
- 21 to 29 percent of patients prescribed opioids for chronic pain misuse them.
- Approx 80% of people who use heroin first misused opioids.

Centers for Disease Control Facts

- Since 1999 Opioid overdoses accounted for two thirds of of drug overdoses in the United States.
- From 2014-2015 52,404 people died of a drug overdose (33,091 or 63% were opiate related).
- 2016 there were 63,632 drug overdose deaths (42,249 or 66.4% were opiate related)
- In 2015 there were nearly 6800 cocaine related overdoses. 75% of those cases also involved the use of an opioid. Rates of cocaine overdoses increased by 52%. The largest rate increase by any drug.

Perspective

Center for Disease Control

- Tobacco kills approximately 480,000 per year (including second hand smoke)
- Alcohol kills approximately 88,000 per year
- Opioid abuse 44,249 deaths in 2016
 - Oxycodone
 - Hydrocodone (Vicodin)
 - Codeine
 - Morphine
- Heroin deaths jumped 20% from 2014-2015 with 12,989 people dying from heroin overdoses.

The Three Waves

- This rise in opioid overdose deaths can be outlined in three distinct waves.
- The first wave began with increased prescribing of opioids in the 1990s
- The second wave began in 2010, with rapid increases in overdose deaths involving heroin.
- The third wave began in 2013, with significant increases in overdose deaths involving synthetic opioids – particularly those involving illicitly-manufactured fentanyl.

Sam Quinones and Dreamland Porter and Jick



Porter and Jick Letter

- Wrote a letter to the editor to the New England Journal in 1980 which became known as “Porter and Jick”.
- It simply said that out of 11,882 hospitalized and monitored patients who had at least one narcotic preparation only 4 showed addiction signs. Jick never meant for this to be a scholarly study, just interesting knowledge.
- Editorial went unnoticed until 1986, when it was cited in a paper in Pain, the journal of the American Pain Society out of context.
- Letter became known as Porter Jick and had the claim that “less than 1 percent of patients treated with narcotics developed addictions to them”, attached to it.

ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients¹ who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,² Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

JANE PORTER
HERSHEL JICK, M.D.
Boston Collaborative Drug
Surveillance Program
Boston University Medical Center

Waltham, MA 02154

1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. *JAMA*. 1970; 213:1455-60.
 2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. *J Clin Pharmacol*. 1978; 18:180-8.
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Porter and Jick

- Has been cited 608 times by scholars
- Scientific American article mentioned the pair's "extensive study."
- in 2001, Time magazine called it a "landmark study" showing that fears of addiction were "basically unwarranted."
- This pain population with no abuse history is literally at no risk for addiction," read one article from 1998.
- "Medical opioid addiction is very rare," read another from 2002
- Editors note in the New England Journal of Medicine
 - For reasons of public health, readers should be aware that this letter has been 'heavily and uncritically cited' as evidence that addiction is rare with opioid therapy

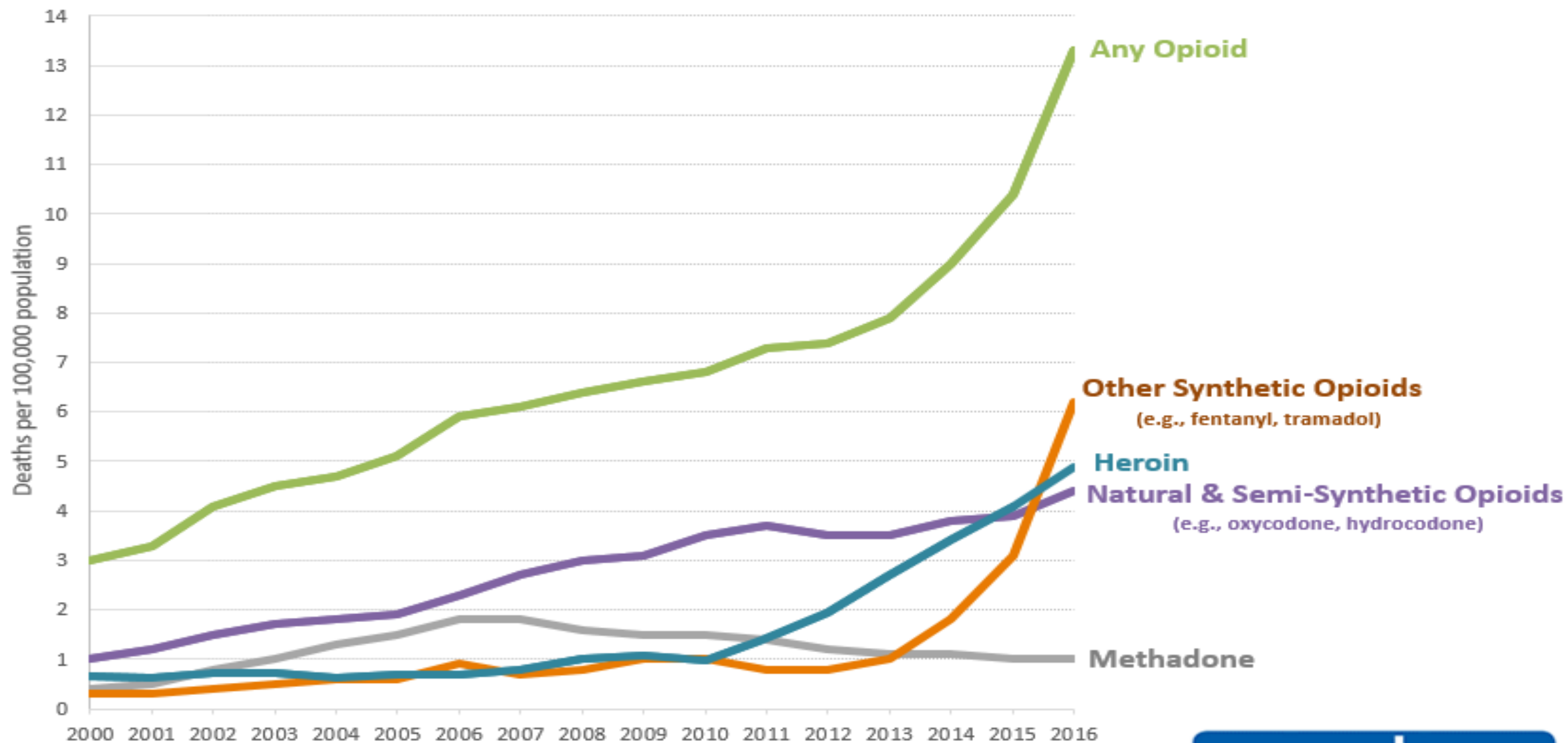
Dr. Herschel Jick

- Until 2005 when he was subpoenaed in a Federal suit against Purdue Pharma, Jick never knew drug companies were using his letter as proof that their opiate drugs weren't addictive. Purdue settled and paid a 634 million dollar fine.
- Jicks told the Associated Press in June of 2017,
 - I'm essentially mortified that that letter to the editor was used as an excuse to do what these drug companies did," he told the Associated Press. "They used this letter to spread the word that these drugs were not very addictive."

How Did It Happen

- A key reason the letter was misinterpreted had to do with the New England Journal of Medicine's archives, None of the journal's material before 1993 was available online until 2010. (Quinones)
- When the letter was cited, it had the appearance of being a peer-reviewed study, not a terse letter to the editor

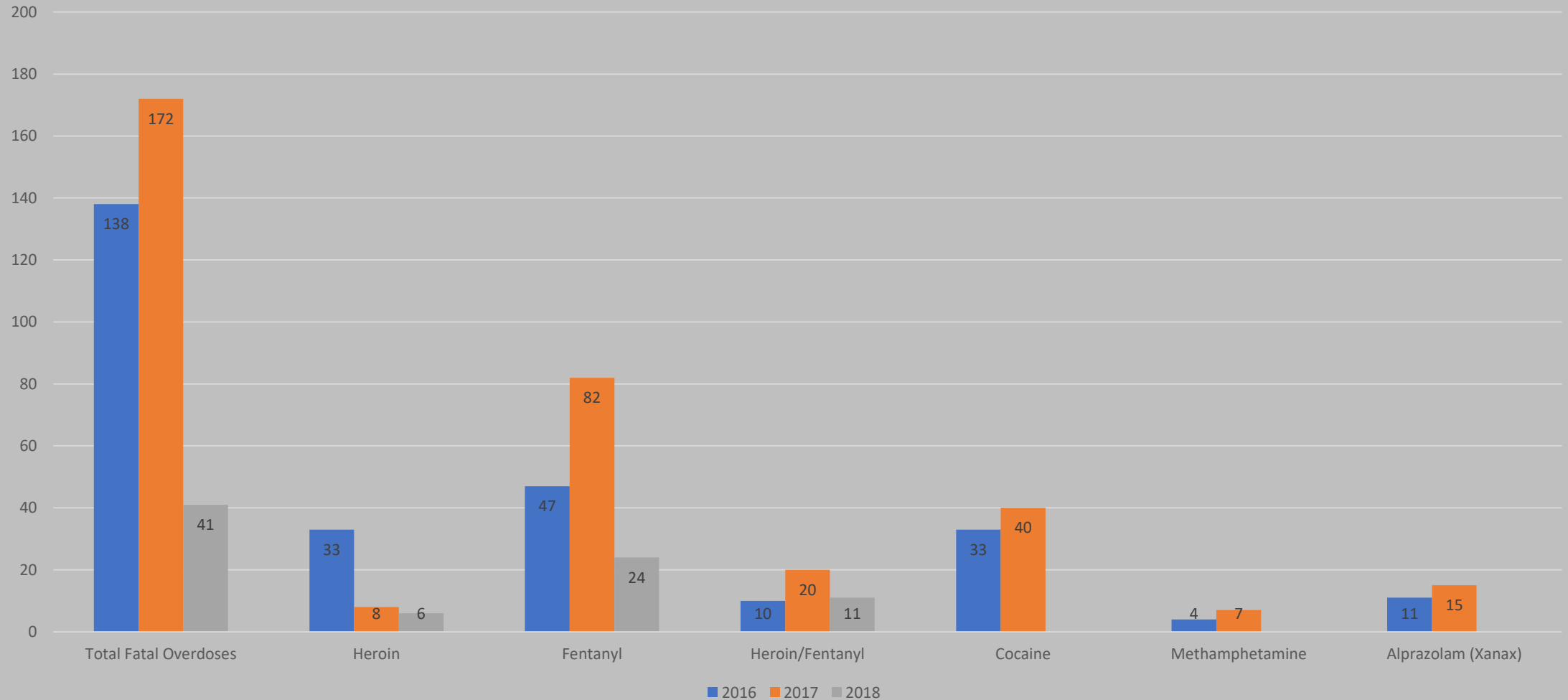
Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2017.
<https://wonder.cdc.gov/>.

CMPD Overdose Deaths 2016-2018

Chart Title



CMPD Overdose Deaths 2016-2018

Year	2016	2017	2018
Total Fatal Overdoses	138	172	41
Heroin	33	8	6
Fentanyl	47	82	24
Heroin/Fentanyl	10	20	11
Cocaine	33	40	
Methamphetamine	4	7	
Alprazolam (Xanax)	11	15	

Heroin v Fentanyl Comparison



What the Heck is Fentanyl

- Fentanyl is a powerful synthetic analgesic (pain reliever) opioid analgesic that is similar to morphine but is 50 to 100 times more potent. It is a Schedule II legal narcotic which means it does have medical uses (severe and chronic pain)
- **Fentanyl is so powerful that it's original intended use was only for treatment of people experiencing extreme pain caused by late-stage cancer or during surgery..**

Fentanyl continued

- In a 2013 study conducted by the Center for Disease Control (CDC), found that 82% of Fentanyl overdose deaths involved illegally manufactured Fentanyl, while only 4% were suspected to originate from a prescription

Centers for Disease Control

- Heroin-related overdose deaths have more than quadrupled since 2010.
- More than nine in 10 people who used heroin also used at least one other drug.
- Among new heroin users, approximately three out of four report having abused prescription opioids prior to using heroin.

Heroin Types Found Locally

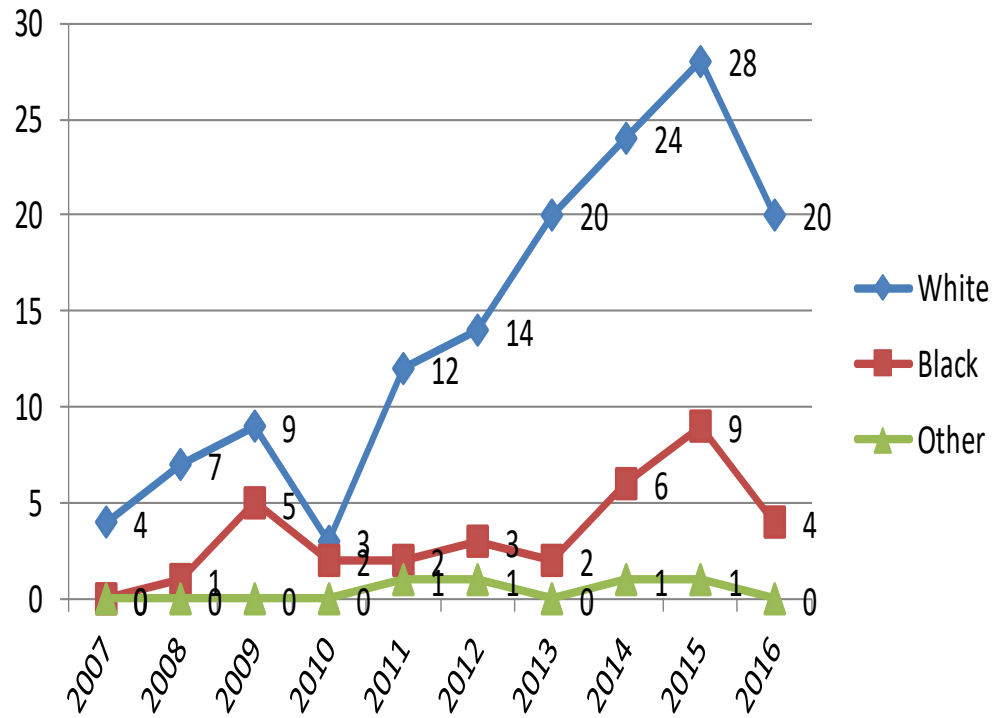
Mexican Black Tar Heroin



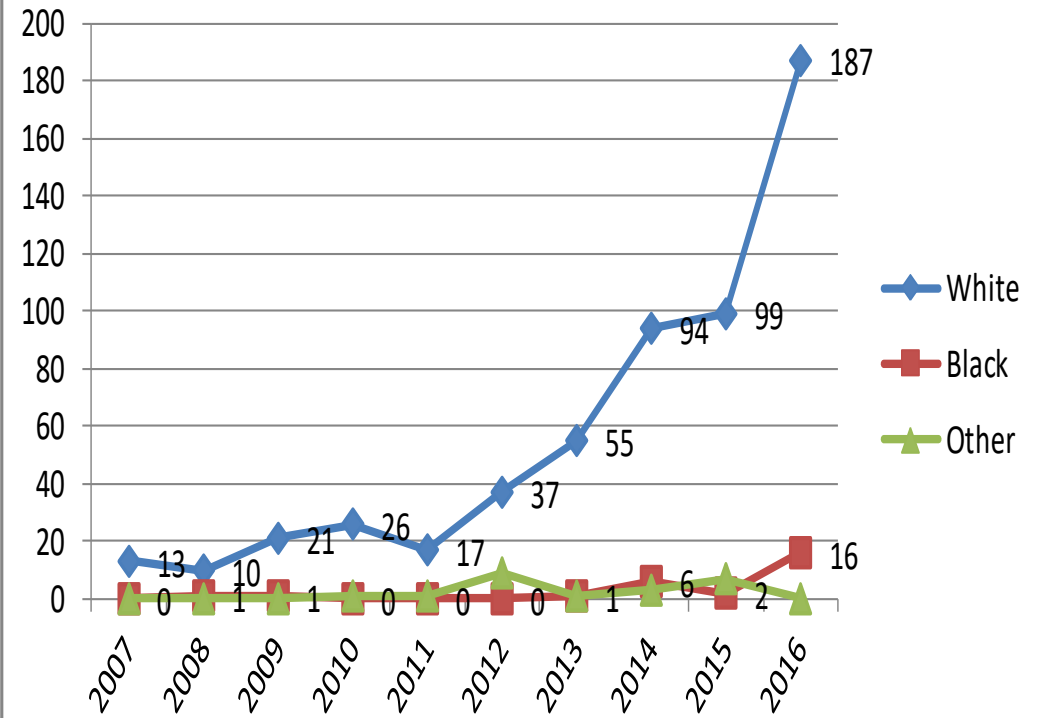
Columbian Brown and China White



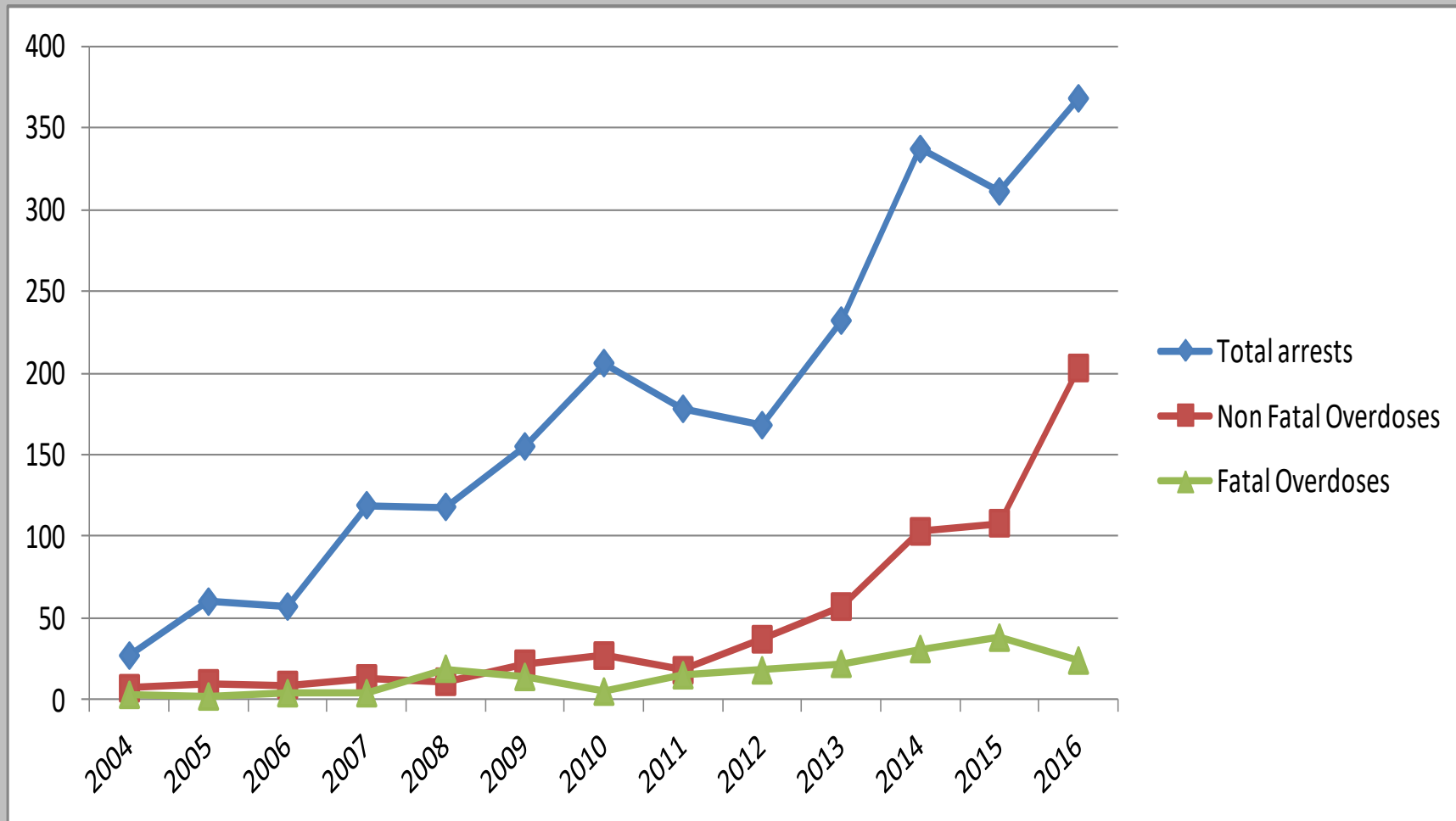
Fatal Overdose by Race



Non Fatal Overdose by Race



Charlotte Heroin Picture

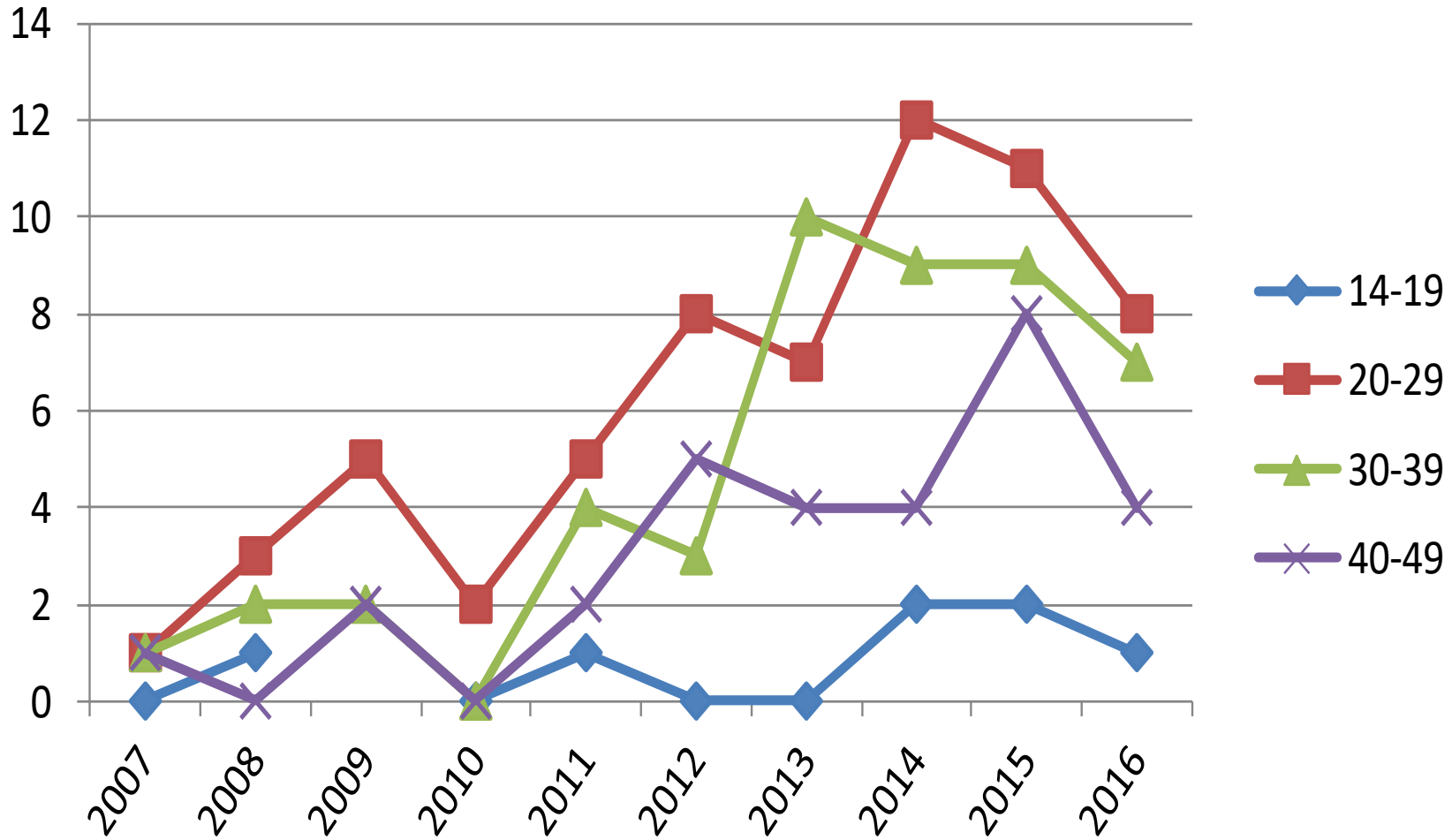


- While opiates are prescribed to relieve acute pain, prolonged use can lead to opiate addiction (opioid addiction) and abuse. Common opioids include prescription painkillers such as **DILAUDID**, **OXYCODONE**, **HYDRCODONE** and **FENTANYL**, as well the illicit drug **HEROIN**. Opiate addiction (including opioid addiction) is the leading cause of the drug overdose in the United States.
- Opioids—prescription and illicit—are the main driver of drug overdose deaths. Opioids were involved in 42,249 deaths in 2016, and opioid overdose deaths were five times higher in 2016 than 1999.

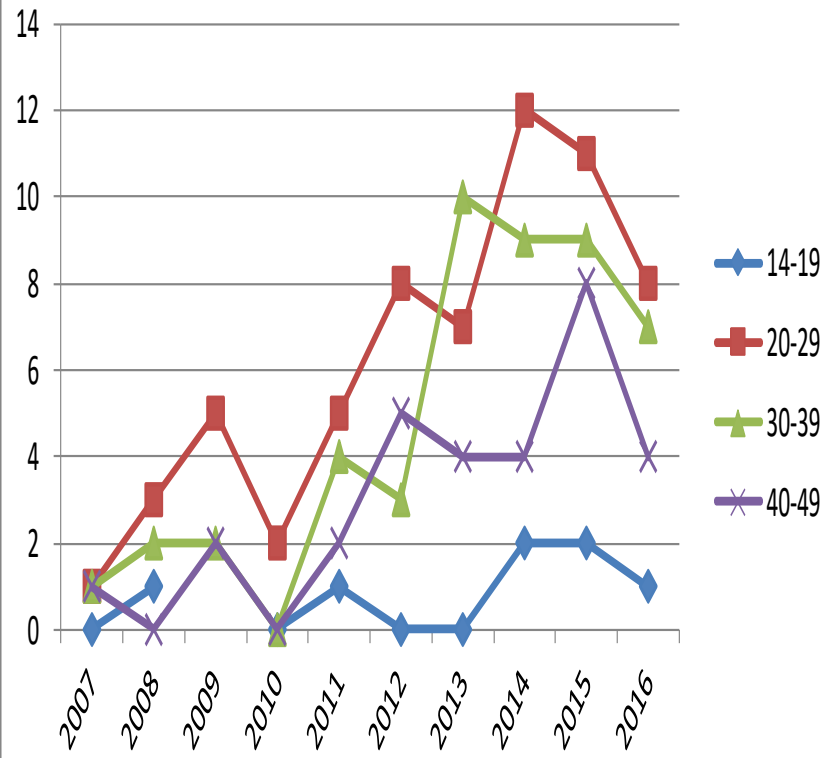
Charlotte Heroin Picture

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total arrests	27	60	57	119	118	155	206	178	168	232	337	311	368
Non Fatal Overdoses	7	10	9	13	11	22	27	18	37	57	103	108	203
Fatal Overdoses	3	2	4	4	19	14	5	15	18	22	31	38	24

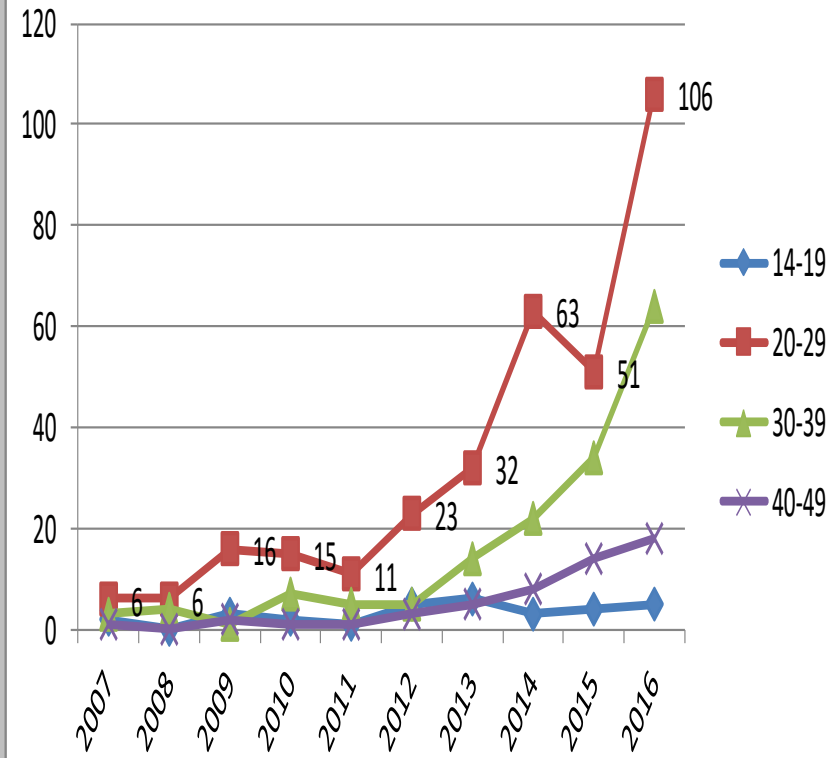
Fatal Overdoses by Age



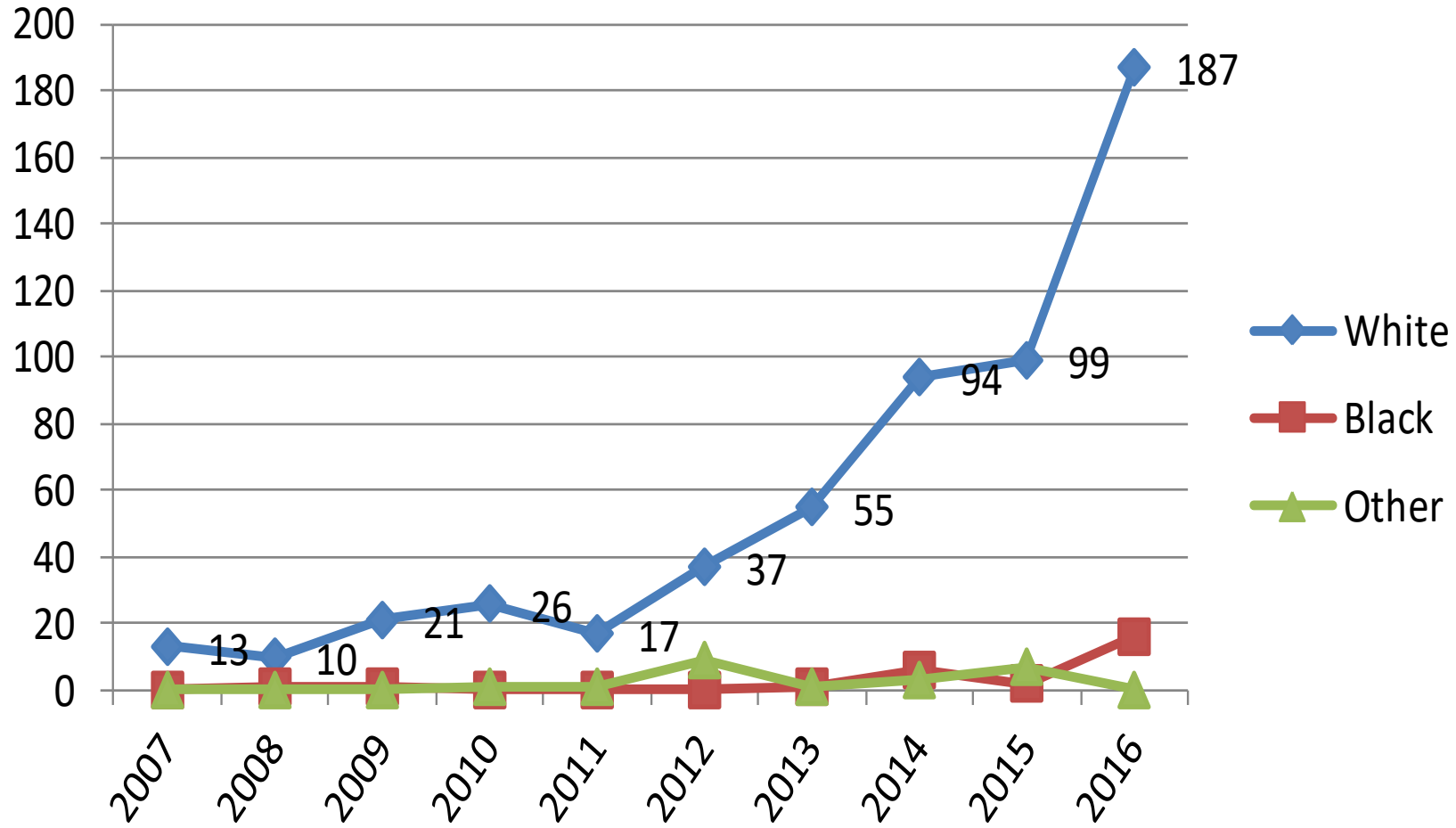
Fatal Overdoses by Age



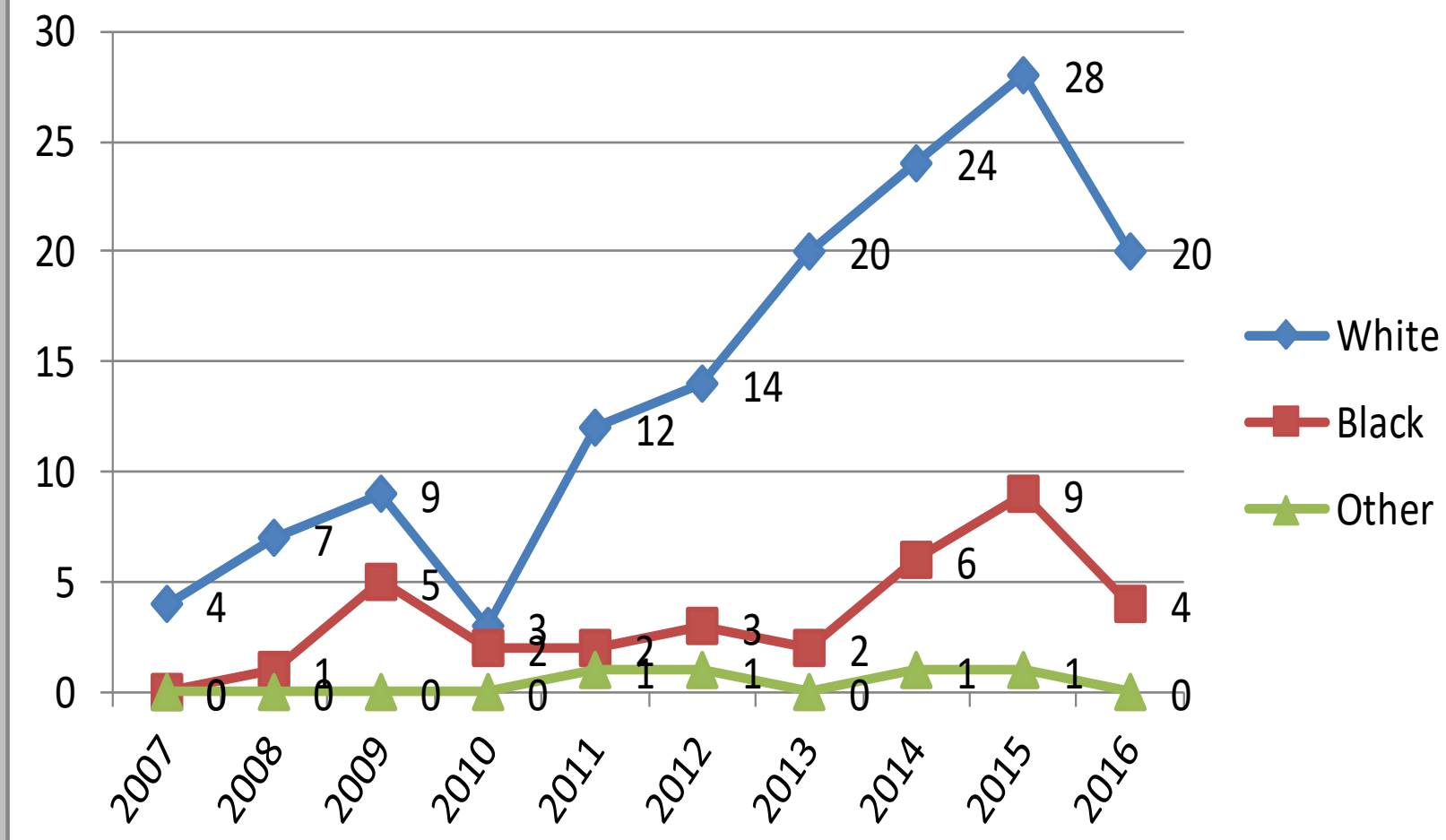
Non Fatal Overdose by Age



Non Fatal Overdose by Race



Fatal Overdose by Race



Arrests by Race

