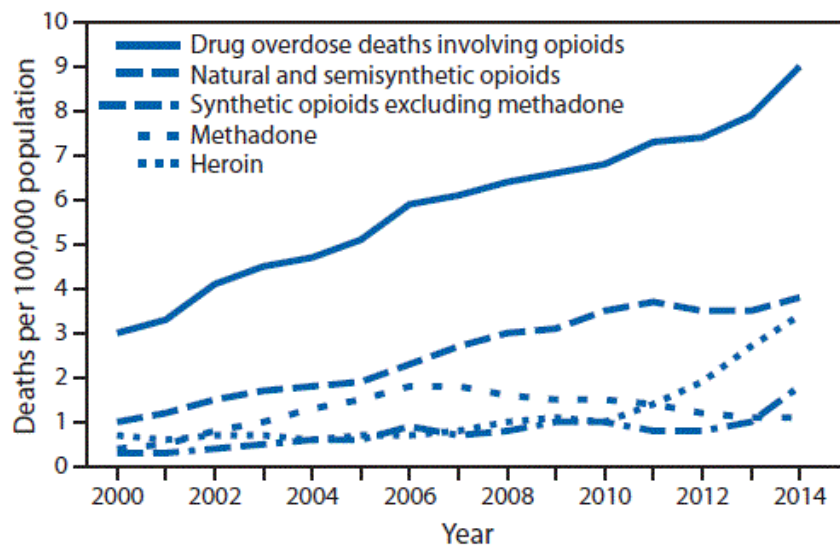




The Epidemic of Overdoses From Opioids in Philadelphia

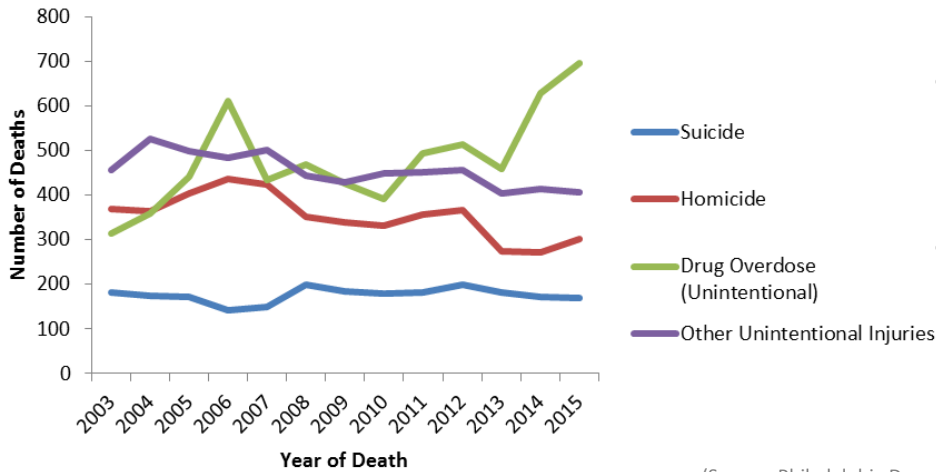
Growth in the use of opioids, including prescription painkillers and heroin, is fueling a nationwide epidemic of deaths from drug overdose. This first issue of *CHART* summarizes the problem nationally and in Philadelphia, and gives recommendations for healthcare professionals and families.

**Drug overdose deaths involving opioids
by type of opioid — United States, 2000–2014¹**



- According to the Centers for Disease Control & Prevention (CDC), 47,055 people died from drug overdoses in the United States in 2014, for a rate more than double that of 2000.¹
- Among overdose deaths in 2014, 61% involved opioids.
- Increases in opioid-related deaths resulted from the use and misuse of prescription pain relievers and the use of heroin.
- Since 1999, the number of prescriptions for pharmaceutical opioid pain relievers in the U.S. more than quadrupled.²
- People who have misused opioid pain relievers are 19 times more likely than others to start using heroin, even though few people who misuse pharmaceutical opioids become heroin users (4% initiate heroin use within 5 years).³

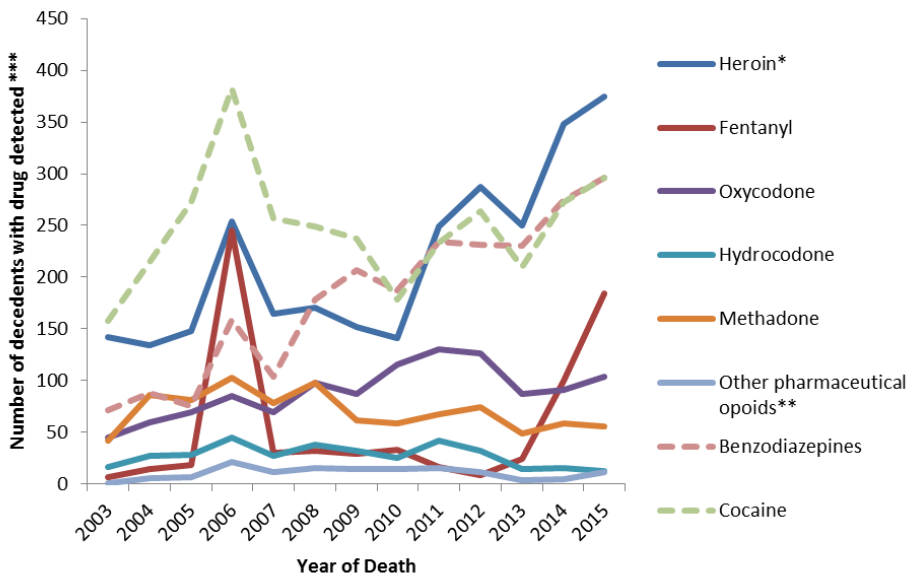
Numbers of Overdose and Injury-related Deaths in Philadelphia, 2003-2015, Residents and Non-residents



- Drug overdose deaths have spiked in Philadelphia in recent years, with nearly 700 such deaths in 2015.
- In 2015, there were more than twice as many deaths from drug overdose in Philadelphia as there were from homicide.

(Source: Philadelphia Department of Public Health, Medical Examiner's Office)

Numbers of Overdose Deaths in Philadelphia, by Drug, 2003-2015, Residents and Non-residents



From 2003 to 2015, trends varied by the type of drugs detected:

- Heroin-related deaths increased sharply beginning in 2011. Heroin in Philadelphia has a high purity and low price.⁴
- Deaths involving fentanyl spiked in 2006 and increased again beginning in 2014. For the same time periods, the use of fentanyl in combination with other drugs contributed to increases in deaths involving other drugs.
- For other pharmaceutical opioids like oxycodone and hydrocodone, trends have been more gradual with peak numbers of deaths occurring before 2013.
- Benzodiazepines and cocaine were detected in combination with opioids in approximately 90% and 70% of deaths, respectively.

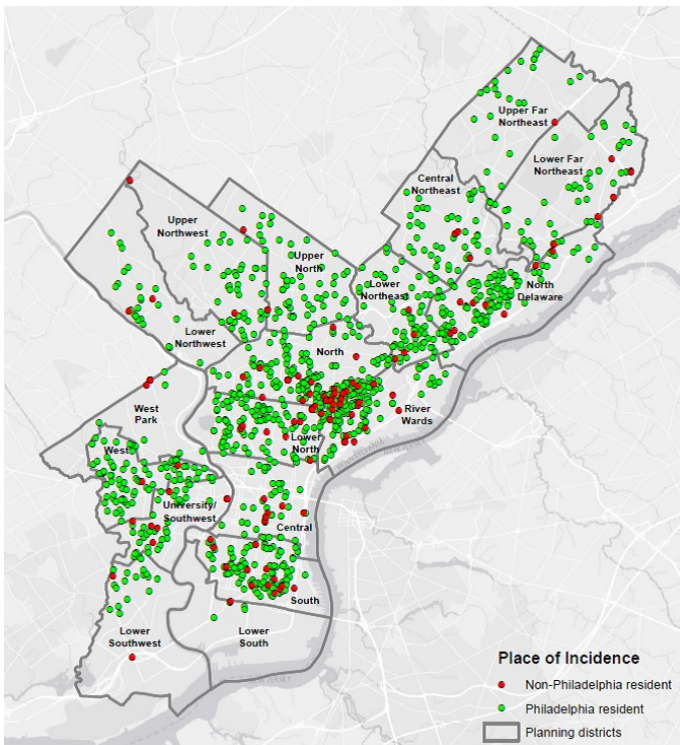
* Includes deaths with heroin or morphine (primary metabolite of heroin) detected

** Includes deaths with oxymorphone, hydromorphone, or buprenorphine detected

*** Multiple drugs might be detected in an individual decedent

(Source: Philadelphia Department of Public Health, Medical Examiner's Office)

Location of Overdoses in Philadelphia, by Planning District, 2014-2015, Residents and Non-residents



- Of the 1,285 overdose deaths that occurred in Philadelphia in 2014-2015, 90% were among Philadelphia residents and 10% among people who lived elsewhere.
- For residents and non-residents, the places of where overdoses occurred were comparable.
- Most non-residents who died from overdoses resided in nearby parts of Pennsylvania, New Jersey, Delaware, and Maryland.

(Source: Philadelphia Department of Public Health, Medical Examiner’s Office)

Overdose Deaths by Place of Residence, 2015, Philadelphia Residents Only

Planning District (in order of highest to lowest rate)**	Number of deaths	Rate per 100,000 population
North Delaware	62	66.8
River Wards	45	66.8
Lower North	54	59.0
North	74	51.8
West	55	50.3
South	53	38.7
Lower Northeast	38	38.1
Upper Northwest	30	34.9
Central Northeast	29	34.5
Lower Far Northeast	23	32.3
Upper North	33	21.1
Central	21	17.8
University/ Southwest	16	*
Lower Northwest	18	*
Upper Far Northeast	14	*
Lower Southwest	9	*
West Park	3	*
Lower South	2	*

* Number of deaths is too small for reliable rate calculation.
 ** See preceding map for planning district locations.

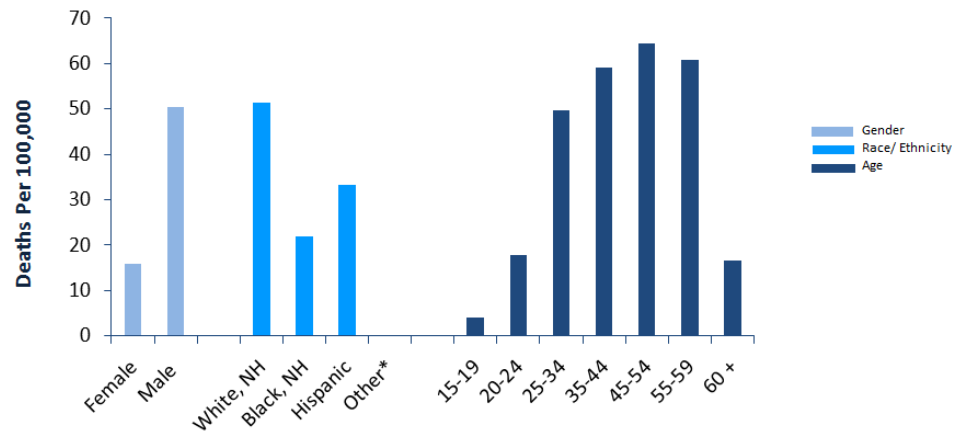
- Overdose deaths occurred among residents of all planning districts, but rates of death varied widely among residents of different planning districts.

(Source: Philadelphia Department of Public Health, Medical Examiner’s Office)

Rates of Opioid-related Overdose Deaths, by Gender, Race/ethnicity, and Age, 2015, Philadelphia Residents Only

For opioid-related deaths:

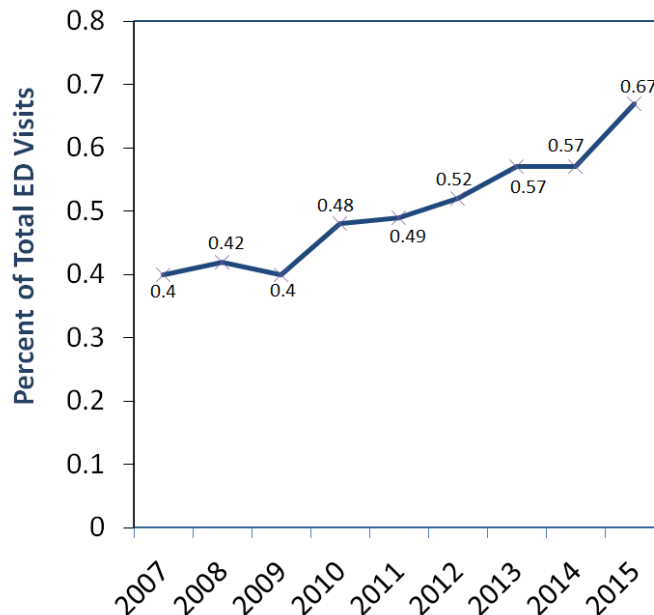
- The rate among males was more than three times higher than among females.
- Rates were more than two times higher among whites than African-Americans. Rates among people of Hispanic ethnicity were intermediate.
- Rates were highest among persons 25-59 years of age.



* Deaths among persons in other race/ethnicity groups were too few to calculate a rate

(Source: Philadelphia Department of Public Health, Medical Examiner's Office)

Percentage of Hospital Emergency Department Visits for Treatment of Opioid Drug Overdoses, 2007-2015, Philadelphia



- In addition to people who died from opioid overdoses, many more were treated in hospital emergency departments.
- The percentage of Philadelphia hospital emergency department visits related to opioid overdoses increased from approximately 0.4% in 2007 to nearly 0.7% in 2015.
- In 2015, there were over 6,500 emergency department visits for opioid overdoses.
- For each opioid-related death, there were approximately 12 hospital emergency department visits.

(Source: Philadelphia Department of Public Health, Division of Disease Control)

Recommendations

- Physicians should prescribe opioid painkillers less often, in lower doses, and for shorter duration. The CDC recently issued prescribing guidelines that discourage use of opioids for chronic pain. It also advised that for acute pain, treatment for three days is usually sufficient and that treatment for more than seven days is rarely necessary.⁵
- Physicians should use great caution when prescribing opioid pain relievers in patients who are also taking benzodiazepines and should avoid prescribing benzodiazepines in patients taking opioids because the combination of benzodiazepines and opioids is so dangerous.⁵
- Physicians should help their patients who are dependent on opioids get treatment. This can be through referral to methadone treatment or prescribing buprenorphine (Suboxone™), an opioid-like medication that reduces withdrawal symptoms and is safer than methadone. With readily available training and certification, office- or clinic-based physicians can prescribe buprenorphine.⁶
- People in contact with those who use opioids should obtain the antidote naloxone (Narcan™), which can immediately reverse a potentially fatal opioid overdose. In 2014, Pennsylvania’s Physician General signed a “standing order” for naloxone. This action, combined with passage of PA Act 139 of 2014, is intended to expand access to naloxone by first responders and families and friends of opiate users.⁷
- In April 2016, the Pennsylvania Department of Health joined other state health agencies and professional organizations in requesting that Medicare, Medicaid, and hospital accreditation programs roll back aggressive pain management rules that require hospitals to ask every patient about pain routinely—a practice that has prompted overuse of opioid pain relievers.⁸

Resources

- Prevention Point of Philadelphia provides education and training to expand access to naloxone.⁹
- The Division of Addiction Services of Philadelphia’s Department of Behavioral Health and Intellectual disAbility Services, provides tools and resources for healthcare providers, people with drug dependence, and their families.¹⁰ Those seeking treatment who lack health insurance should contact the Behavioral Health Special Initiative at 215-546-1200. Those who have medical assistance or Medicaid should contact Community Behavioral Health at 888-545-2600.
- The Pennsylvania Department of Health is developing a prescription drug monitoring program that will allow those who prescribe and dispense opioids and other controlled medications “to monitor who is obtaining opioids, who prescriptions are being obtained from, and how often they are prescribed.”¹¹
- In April 2016, the Pennsylvania Department of Human Services announced that it will fund the creation of 50 Centers of Excellence to improve treatment for addiction to opioids.¹²

Notes

1. Rudd RA, Aleshire N, Zibbell JE, Gladden RM. Increases in Drug and Opioid Overdose Deaths — United States, 2000–2014. *Morbidity and Mortality Weekly Report*. 2016; 64(50):1378–82. Available at URL: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm>.
2. Centers for Disease Control and Prevention. Guideline Information for Providers: Safe Prescribing Saves Lives. Available at URL: <http://www.cdc.gov/drugoverdose/prescribing/providers.html>
3. Muhuri PK, Gfroerer JC, M. Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States, August 2013. Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality Data Review. Available at URL: <http://www.samhsa.gov/data/sites/default/files/DR006/DR006/nonmedical-pain-reliever-use-2013.htm>.
4. Philadelphia-Camden High-Intensity Drug Trafficking Area (PCHIDTA). Regional Threats. Available at URL: <http://www.pchidta.org/default.aspx/MenuItemID/142/MenuGroup/Regional+Threats.htm>
5. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. *MMWR Recomm Rep* 2016;65:1–49. DOI: <http://dx.doi.org/10.15585/mmwr.rr6501e1>.
6. Substance Abuse and Mental Health Services Administration. Medication-Assisted Treatment (MAT)<http://www.samhsa.gov/medication-assisted-treatment>
7. Pennsylvania Governor's Office Newsroom. Governor Wolf Announces Naloxone Standing Order to Combat Heroin Epidemic (+ FAQs), October 29, 2015. Available at URL: <https://www.governor.pa.gov/naloxone-standing-order/>
8. Pennsylvania Newsroom. In Effort to Combat Opioid Epidemic, Pennsylvania Joins Other State Health Agencies, Medical Experts in Calling for Roll Back of Aggressive Pain Management Rules [Press release, April 13, 2016]. Available at URL: <http://www.media.pa.gov/Pages/Health-Details.aspx?newsid=301>
9. Prevention Point Philadelphia. Available at URL: <http://www.pponline.org/>.
10. Philadelphia Department of Behavioral Health and Intellectual Disability Services. Addiction Services. Available at URL: <http://dbhids.org/addiction-services/>
11. Pennsylvania Newsroom. In Continued Effort to Fight Opioid Abuse, Department of Health Names Meghna Patel to Lead Prescription Drug Monitoring Program [Press release April 15, 2016]. Available at URL: <http://www.media.pa.gov/Pages/Health-Details.aspx?newsid=291>.
12. Pennsylvania Department of Human Services. Centers of Excellence. Available at URL: <http://www.dhs.pa.gov/citizens/substanceabuseservices/centersofexcellence>.

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Thomas Farley, MD, MPH
Commissioner
Philadelphia Department of Public Health
1401 John Fitzgerald Kennedy Boulevard, Room 600
Philadelphia, PA 19102

215-686-5200
healthdept@phila.gov
<http://www.phila.gov/health>

All PDPH CHARTs are available on <http://www.phila.gov/health>.