

## Hospitalizations for Opioid Overdose, 2016 – 2021

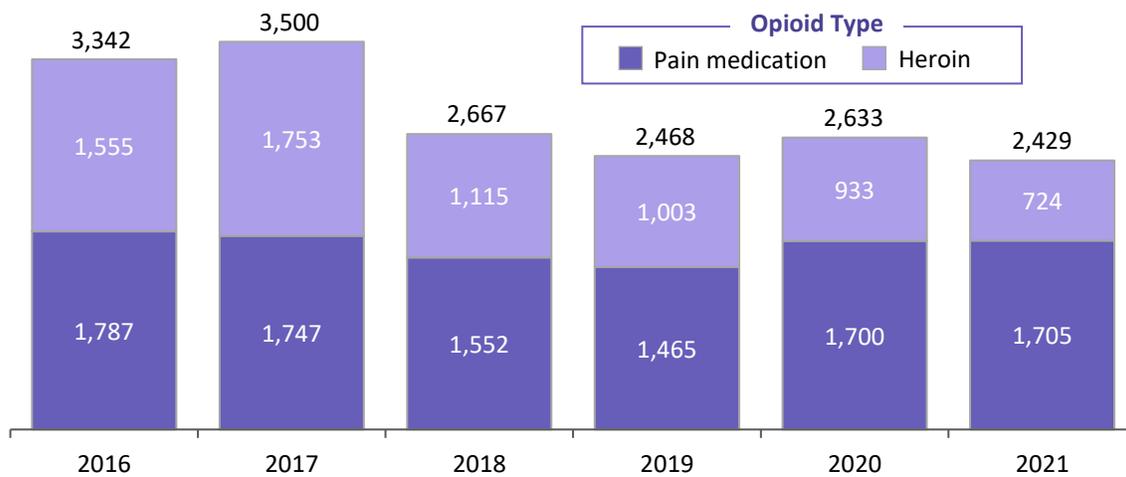


*This research brief looks at Pennsylvania residents, ages 15 and older, who were admitted to a Pennsylvania acute care hospital for an opioid overdose. Opioid overdoses of pain medication and heroin are displayed separately, but are also combined to show totals. This analysis includes only overdoses that resulted in a hospital admission (examples of cases not included: those treated with naloxone and/or treated in the emergency department and not admitted to the hospital, or overdose deaths that occurred outside the hospital setting).*

### Hospitalizations for Opioid Overdose Decreased 27% between 2016 and 2021

Hospitalizations for opioid overdose decreased 27% from a total of 3,342 in calendar year (CY) 2016 to 2,429 in CY 2021. Most of this decrease can be attributed to a decrease in hospitalizations for heroin overdose, which decreased 53% from 1,555 in 2016 to 724 in 2021. During the same time period, hospitalizations for pain medication overdose showed less change, with only a 5% decrease from 1,787 in 2016 to 1,705 in 2021.

**Number of Hospitalizations for Opioid Overdose**



Note: These numbers reflect overdoses that resulted in a hospital admission. They do not include all overdoses for Pennsylvania residents. Emergency department visits for opioid overdose are not included in these numbers.

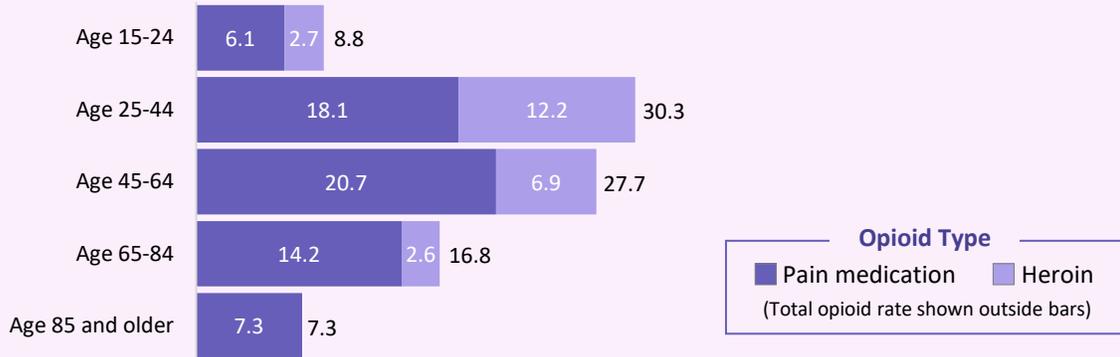
### Hospitalizations for Opioid Overdose in 2021

- Patients hospitalized for an opioid overdose spent a total of 11,750 days in the hospital. The average hospital stay was 4.8 days.
- 153 (6%) of the patients hospitalized for opioid overdose died in the hospital.
- Of the 2,429 hospitalizations for opioid overdose, 54% had Medicaid as the anticipated primary payer, 26% had Medicare, 14% had commercial insurance, and 7% had another type or no insurance.

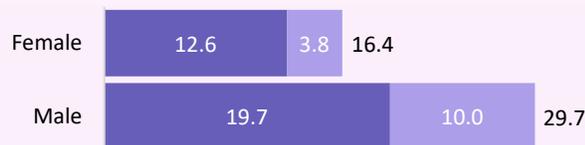
Note: Percentages do not add to 100% due to rounding.

## Hospitalization Rates\* for Opioid Overdose per 100,000 Residents in 2021

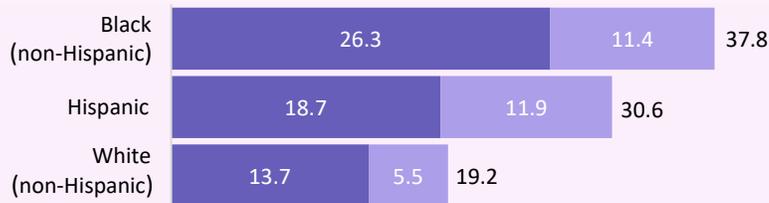
### By Age:



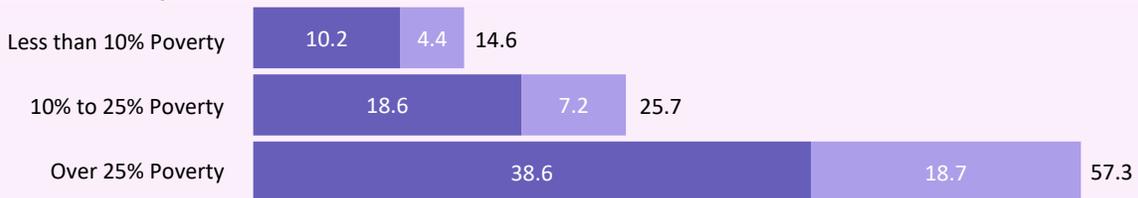
### By Sex:



### By Race/Ethnicity:



### By Local Poverty Rate†



The following categories of Pennsylvania residents had hospitalization rates significantly higher than the rest of the state:

- Residents with Ages 25-44 years and 45-64 years
- Male residents
- Black (non-Hispanic) and Hispanic residents
- Residents living in zip codes with poverty rates of 10% to 25%, and over 25%

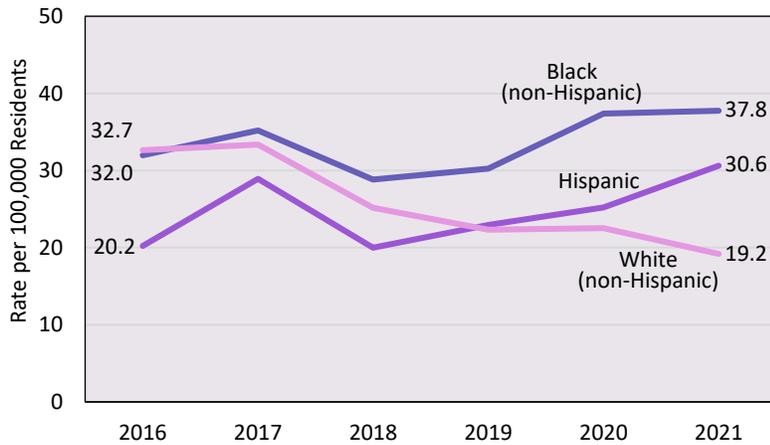
\* Rates are calculated using PHC4 hospital discharge data and US Census Bureau 2020 population estimates.

† Poverty rates are based on 2020 US Census Bureau estimates at the zip code level.

Note: Hospitalization rates for pain medication and heroin overdose may not add to the total hospitalization rates for opioid overdose, due to rounding. Other race/ethnicity categories as well as unknown/missing values are not shown due to low volume.

## Hospitalization Rates\* for Opioid Overdose per 100,000 Residents, 2016 – 2021

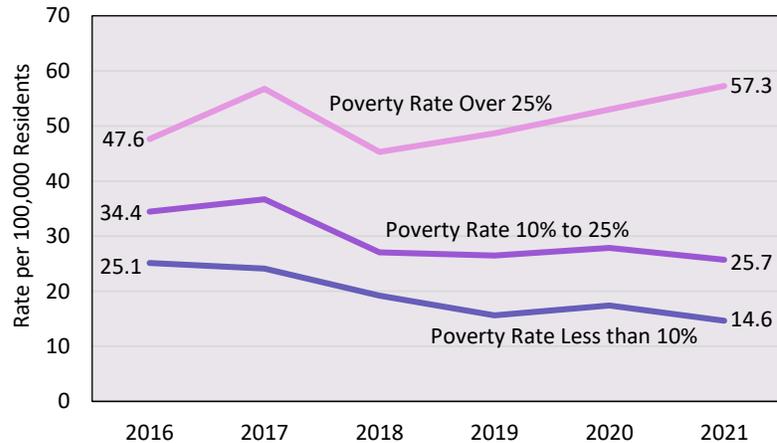
### By Race/Ethnicity:



Hospitalization rates for opioid overdose decreased for White (non-Hispanic) Pennsylvania residents from 2016 through 2021. However, rates increased for both Hispanic and Black (non-Hispanic) Pennsylvania residents during that same time.

### By Local Poverty Rate†:

Hospitalization rates were consistently highest for Pennsylvanians living in areas with poverty rates over 25%, and also increased from 2016 through 2021. However, hospitalization rates for Pennsylvanians living in areas with lower poverty rates decreased during that same time.



\* Rates are calculated using PHC4 hospital discharge data and US Census Bureau 2020 population estimates.

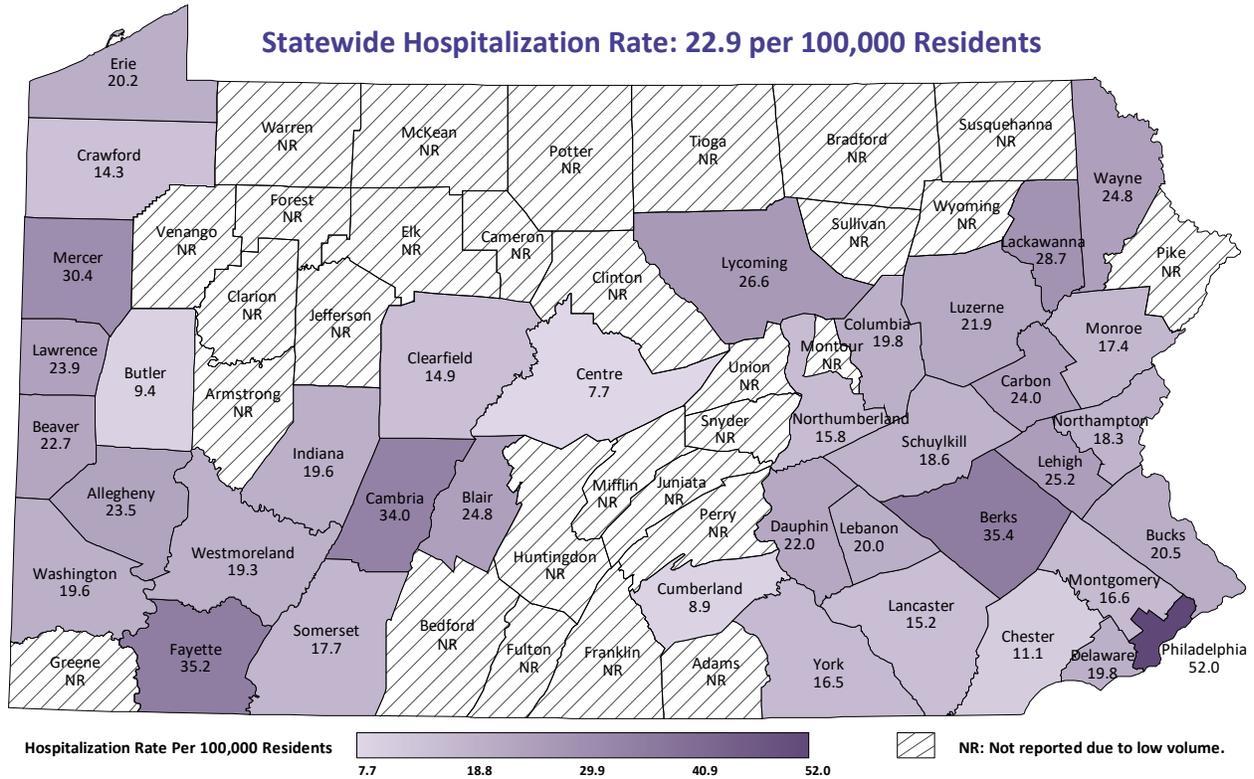
† Poverty rates are based on 2020 US Census Bureau estimates at the zip code level.

## New Data on Fentanyl

Fentanyl is a synthetic opioid pain medication used for treating severe pain. However, it is also manufactured illicitly and distributed through illegal drug markets. Because of its high potency and illicit use, fentanyl has a high risk for misuse, abuse, dependence and overdose. Fentanyl-related overdoses became uniquely identifiable in CY 2021 hospital admission data.

Of the 2,429 statewide hospitalizations for opioid overdose in 2021, 18% (427) were for fentanyl overdose. Furthermore, of the 153 overdose hospitalizations that ended in death, 34% (52) were for fentanyl overdose.

## Hospitalization Rates\* for Opioid Overdose in 2021, by County



\* Rates are calculated using PHC4 hospital discharge data and US Census Bureau 2020 population estimates.

Note that higher rates for some counties might reflect larger numbers of residents with certain at-risk characteristics (e.g., factors related to income, race/ethnicity, age and gender). County rates were not adjusted for those population differences so that important effects of these patient characteristics were not masked by such adjustment.

### About PHC4

Created by the PA General Assembly in 1986, the PA Health Care Cost Containment Council (PHC4) is an independent state agency charged with collecting, analyzing and reporting information that can be used to improve the quality and restrain the cost of health care in the state. Today, PHC4 is a recognized national leader in public health care reporting. PHC4 is governed by a board of directors representing business, labor, consumers, health care providers, insurers, health economists and state government.

Barry D. Buckingham, Executive Director  
225 Market Street, Suite 400, Harrisburg, PA 17101  
717-232-6787 • [www.phc4.org](http://www.phc4.org)



## Opioid Overdose Hospitalization Rates\* per 100,000 County Residents, 2016 – 2021

	Calendar Year					
	2016	2017	2018	2019	2020	2021
<b>Statewide</b>	31.6	33.0	25.1	23.2	24.8	22.9
<b>Adams</b>	30.6	21.0	11.6	11.6	11.6	NR
<b>Allegheny</b>	34.9	41.2	22.9	26.6	29.3	23.5
<b>Armstrong</b>	28.6	23.4	21.8	NR	NR	NR
<b>Beaver</b>	40.7	31.6	27.5	18.1	21.9	22.7
<b>Bedford</b>	NR	NR	NR	NR	NR	NR
<b>Berks</b>	25.7	31.4	22.7	24.7	20.0	35.4
<b>Blair</b>	31.1	37.1	14.7	24.6	24.8	24.8
<b>Bradford</b>	22.0	30.1	NR	NR	NR	NR
<b>Bucks</b>	34.1	38.2	32.0	26.4	23.7	20.5
<b>Butler</b>	19.9	26.2	12.1	15.2	13.2	9.4
<b>Cambria</b>	51.3	51.8	21.7	18.2	32.2	34.0
<b>Cameron</b>	NR	NR	NR	NR	NR	NR
<b>Carbon</b>	31.8	24.2	36.9	31.4	36.9	24.0
<b>Centre</b>	15.5	7.7	NR	NR	8.5	7.7
<b>Chester</b>	24.6	24.9	19.3	16.1	13.2	11.1
<b>Clarion</b>	NR	NR	NR	NR	NR	NR
<b>Clearfield</b>	17.6	20.6	17.7	20.7	19.4	14.9
<b>Clinton</b>	NR	NR	NR	NR	31.6	NR
<b>Columbia</b>	37.2	44.6	NR	28.7	NR	19.8
<b>Crawford</b>	19.6	19.7	14.1	19.9	NR	14.3
<b>Cumberland</b>	23.8	13.5	17.2	20.0	14.6	8.9
<b>Dauphin</b>	31.4	30.3	23.1	20.3	19.3	22.0
<b>Delaware</b>	40.6	44.2	35.2	28.9	28.2	19.8
<b>Elk</b>	NR	NR	NR	NR	NR	NR
<b>Erie</b>	35.6	37.3	22.3	20.7	14.4	20.2
<b>Fayette</b>	33.2	37.9	40.0	27.5	24.1	35.2
<b>Forest</b>	NR	NR	NR	NR	NR	NR
<b>Franklin</b>	27.1	16.7	15.8	9.4	12.5	NR
<b>Fulton</b>	NR	NR	NR	NR	NR	NR
<b>Greene</b>	NR	NR	NR	NR	NR	NR
<b>Huntingdon</b>	NR	NR	NR	NR	NR	NR
<b>Indiana</b>	19.3	27.7	22.2	NR	19.6	19.6
<b>Jefferson</b>	NR	NR	NR	NR	NR	NR
<b>Juniata</b>	NR	NR	NR	NR	NR	NR
<b>Lackawanna</b>	42.1	27.4	21.2	14.3	21.3	28.7

NR: Not reported due to low volume.

**Opioid Overdose Hospitalization Rates\* per 100,000 County Residents, 2016 – 2021**  
(continued)

	Calendar Year					
	2016	2017	2018	2019	2020	2021
Lancaster	29.4	23.7	22.6	14.1	13.6	15.2
Lawrence	30.1	40.0	41.6	29.4	26.7	23.9
Lebanon	34.8	23.9	15.7	20.9	22.6	20.0
Lehigh	23.8	28.6	26.0	24.6	28.2	25.2
Luzerne	27.4	27.0	25.1	20.3	26.4	21.9
Lycoming	33.6	27.4	23.2	20.1	27.6	26.6
McKean	NR	NR	NR	NR	NR	NR
Mercer	32.6	42.5	26.8	23.8	27.2	30.4
Mifflin	NR	NR	NR	NR	NR	NR
Monroe	19.2	24.0	15.4	17.4	25.0	17.4
Montgomery	24.1	25.2	20.9	16.5	24.7	16.6
Montour	NR	NR	NR	NR	NR	NR
Northampton	31.7	29.9	22.3	24.2	20.6	18.3
Northumberland	36.2	20.8	28.8	22.4	30.3	15.8
Perry	37.0	29.0	31.6	NR	NR	NR
Philadelphia	47.4	52.5	44.8	45.0	49.0	52.0
Pike	NR	NR	NR	NR	NR	NR
Potter	NR	NR	NR	NR	NR	NR
Schuylkill	25.0	27.6	22.7	24.5	16.1	18.6
Snyder	NR	NR	NR	NR	NR	NR
Somerset	18.8	28.4	NR	NR	17.7	17.7
Sullivan	NR	NR	NR	NR	NR	NR
Susquehanna	NR	NR	NR	NR	NR	NR
Tioga	NR	NR	29.4	NR	NR	NR
Union	NR	NR	NR	NR	NR	NR
Venango	NR	NR	34.7	NR	NR	NR
Warren	NR	NR	NR	NR	NR	NR
Washington	33.9	28.8	17.2	20.1	16.7	19.6
Wayne	NR	NR	NR	NR	27.0	24.8
Westmoreland	38.5	36.4	22.8	22.5	29.4	19.3
Wyoming	NR	NR	NR	NR	NR	NR
York	28.7	39.8	30.0	24.2	23.5	16.5

NR: Not reported due to low volume.

\* The 2020 US Census Bureau population estimates are the latest available at the time of publication, therefore the 2021 rates are calculated using 2021 PHC4 hospital discharge data and 2020 US Census Bureau population estimates. Earlier years use both the hospital discharge data and population estimates from the corresponding year.