



Hospitalizations for Overdose of Pain Medication and Heroin

This research brief presents data on inpatient hospitalizations for patients whose principal reason for admission was overdose of pain medication or heroin. Overdose can include accidental or purposeful misuse of a prescription or other drug (e.g., taking more doses than prescribed or taking medication prescribed for someone else). This analysis includes Pennsylvania residents, age 15 and older, who were admitted to a Pennsylvania general acute care hospital between 2000 and 2014. It does not include overdoses that did not result in a hospital admission (those treated in the emergency department for example) or overdose deaths that occurred outside the hospital setting.

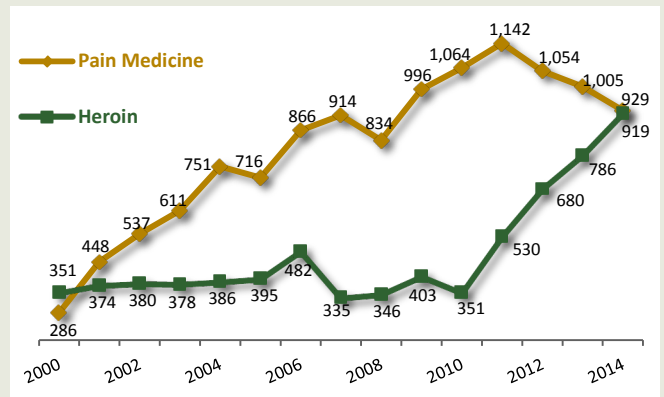
↑ 225%

Hospitalizations for overdose of pain medication increased 225%, from 286 in 2000 to 929 in 2014; the highest number of hospitalizations occurred in 2011 at 1,142 followed by a steady decrease.

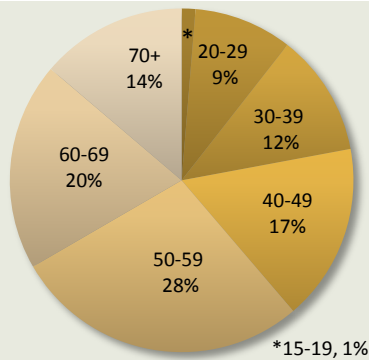
↑ 162%

Hospitalizations for overdose of heroin increased 162%, from 351 in 2000 to 919 in 2014; the largest increases occurred between 2010 and 2014.

Number of Hospitalizations for Overdose

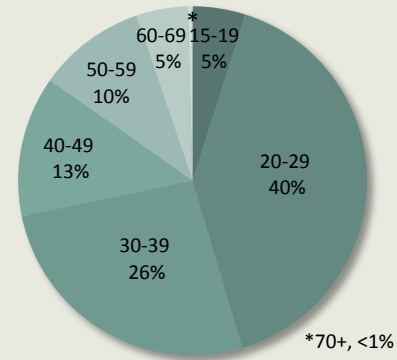


Hospitalization Admissions by Age – Pain Medication



At 28%, the largest percent of hospitalizations for pain medication overdose is for patients age 50-59.

Hospitalization Admissions by Age – Heroin



At 40%, the largest percent of hospitalizations for heroin overdose is for patients aged 20-29.

\$12.2 Million

Together, hospitalizations for pain medication and heroin overdose amounted to an estimated \$12.2 million* in payments (based on 2012 data, the most recent payment data available to PHC4). Hospitalizations for pain medication amounted to an estimated \$6.8 million. The estimated amount for heroin overdoses was \$5.4 million.

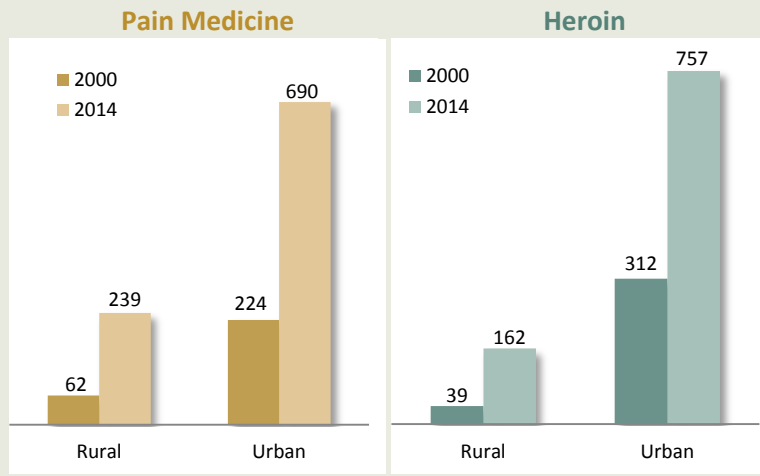
*This estimated figure includes Medicare (fee-for-service) and Medicaid (fee-for-service and managed care) payments as well as estimated payments for other insurers and uninsured patients; that is, when the payment was unknown, PHC4 estimated payments based on Medicare and Medicaid payment averages. This figure represents general acute care discharges for PA residents only (age 15 and above) and does not include emergency department visits that did not result in hospitalization.

Rural PA: ↑ 285% and 315%

For residents of rural counties, the number of hospitalizations for pain medication increased 285% between 2000 and 2014 (from 62 to 239). For heroin overdose, the increase was 315% (from 39 to 162).

Urban PA: ↑ 208% and 143%

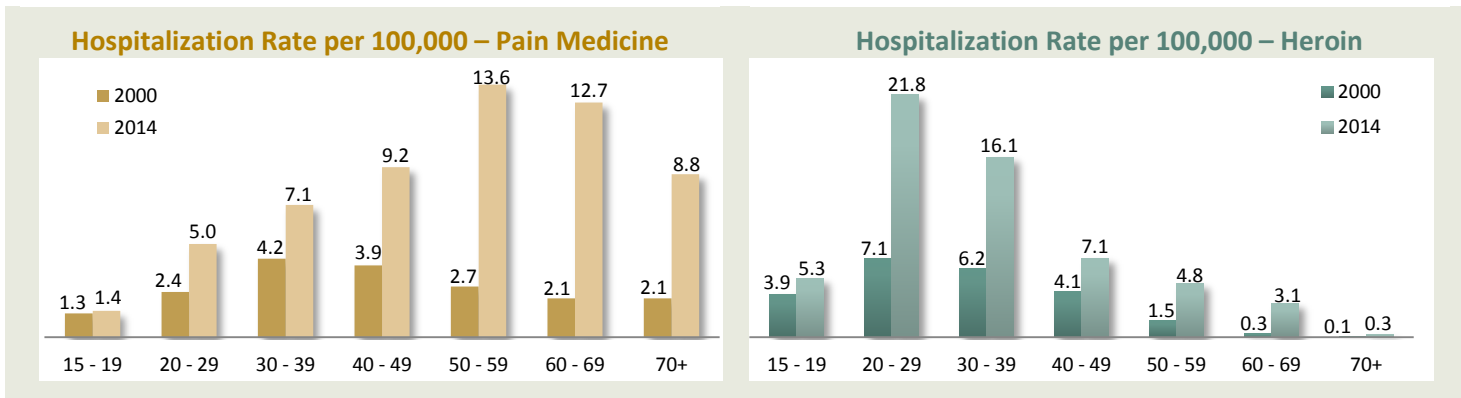
For residents of urban counties, the number of hospitalizations for pain medication increased 208% between 2000 and 2014 (from 224 to 690). For heroin overdose, the increase was 143% (from 312 to 757).



Urban counties include: Allegheny, Beaver, Berks, Bucks, Chester, Cumberland, Dauphin, Delaware, Erie, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Montgomery, Northampton, Philadelphia, Westmoreland, and York. All other counties are considered rural. (Source: Center for Rural PA)

Hospitalization Rate, by Age

From a population-based perspective, hospitalization rates for overdose of pain medication and heroin increased for all age groups. Residents aged 50-59 had the highest hospitalization rate of overdose for pain medication at 13.6 per 100,000 residents, up from 2.7 in 2000. For heroin, residents aged 20-29 had the highest hospitalization rate at 21.8 per 100,000 residents, up from 7.1 in 2000.



Hospitalization Rate, by Race/Ethnicity Per 100,000 (2014 Data)

	Pain Medicine	Heroin
Black non-Hispanic	9.5	7.5
Hispanic	3.7	8.1
White non-Hispanic	9.3	9.0

About PHC4

Created by the Pennsylvania General Assembly in 1986, Pennsylvania 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. More than 840,000 public reports on patient treatment results are downloaded from the PHC4 website each year, and nearly 100 organizations and individuals annually utilize PHC4's special requests process to access and use data. PHC4 is governed by a 25-member board of directors, representing business, labor, consumers, health care providers, insurers and state government.

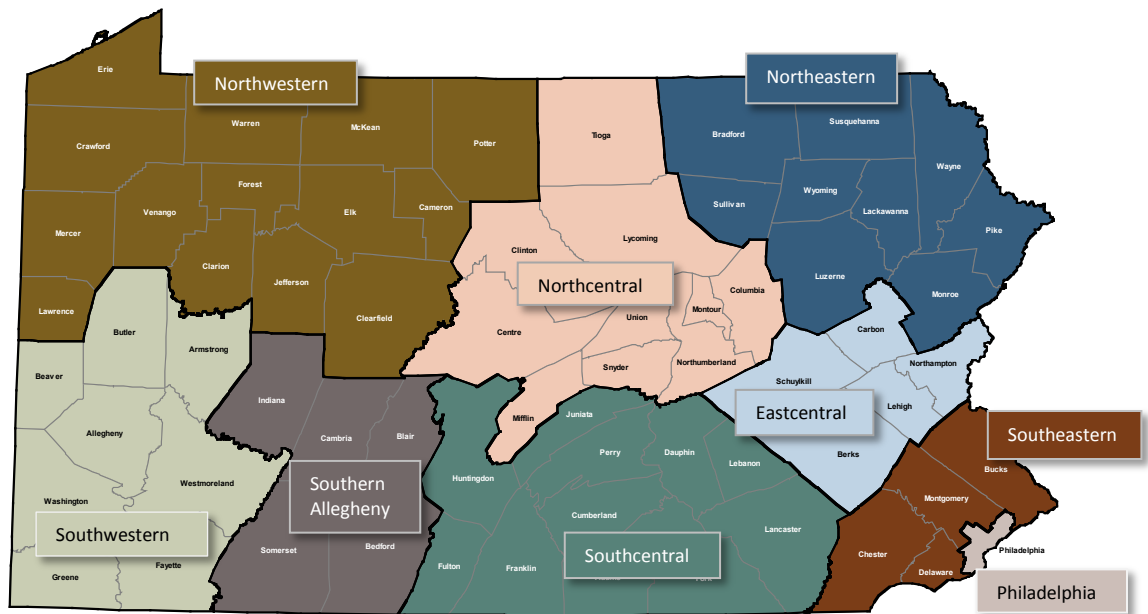
Joe Martin, Executive Director
225 Market Street, Suite 400, Harrisburg, PA 17101
717-232-6787 • www.phc4.org



In 2014, 1.5% of patients hospitalized for pain medication overdose and 7.5% of patients hospitalized for heroin overdose died during their hospital stay.

(Does not include overdose deaths that occurred outside the hospital setting.)

Hospitalization Rates for Pain Medication and Heroin Overdose by Pennsylvania Region (per 100,000 population; 2000 and 2014 Data)



PA Region	Pain Medicine			Heroin		
	2000	2014	% Increase	2000	2014	% Increase
Northwestern	2.8	8.1	187%	1.0	5.4	426%
Northcentral	2.3	9.6	322%	1.1	7.0	509%
Northeastern	3.7	10.5	184%	3.7	4.9	34%
Southwestern	2.4	7.3	208%	2.3	9.1	289%
Southern Allegheny	2.7	10.2	281%	1.7	5.0	192%
Southcentral	1.5	8.0	442%	1.3	5.4	305%
Eastcentral	2.2	8.4	274%	3.5	8.2	133%
Southeastern	3.7	8.1	119%	3.2	10.4	222%
Philadelphia	4.6	12.3	166%	12.1	16.5	36%
Statewide	2.9	8.8	204%	3.6	8.7	145%

Note: Region rates include residents 15 years of age and older and were calculated using PHC4 hospital discharge data and US Census Bureau data; 2014 rates were based on 2013 population numbers. Percent increases are calculated using rates before rounding.