

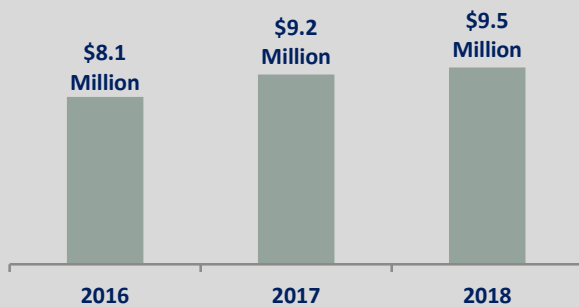


Overdose and Substance Use Disorder among Pennsylvania Residents Age 65 and Older: Hospital Admissions and Emergency Department Visits

This financial brief examines hospital admissions and emergency department visits for substance use (overdose and substance use disorder, including substance dependence or abuse) among Pennsylvania residents age 65 and older who were enrolled in the Medicare fee-for-service program. Data files used for this brief were obtained from the Centers for Medicare and Medicaid Services (CMS) and cover calendar years 2016, 2017 and 2018. "Costs" are measured as payments made by CMS.

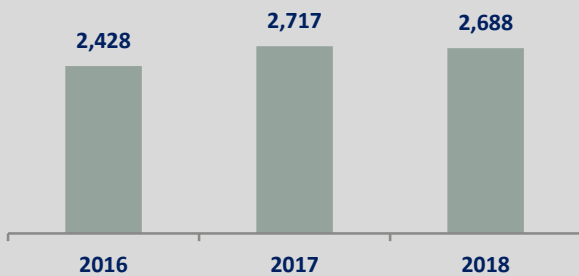
\$26.8 Million in Payments

Payments for Substance Use Admissions and ED Visits 2016-2018



7,833 Admissions and ED Visits

Number of Substance Use Admissions and ED Visits 2016-2018



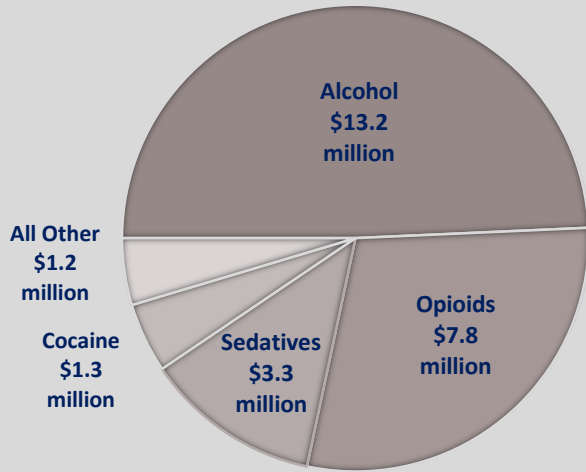
- Payments for hospital admissions and emergency department (ED) visits for substance use among Pennsylvania residents age 65 and older (who were enrolled in the Medicare Fee-for-Service program*) totaled \$26.8 million during the three-year period 2016-2018.
- The number of substance use admissions and ED visits for this population totaled 7,833 during this three-year period: 21% were overdose cases; 79% were substance dependence or abuse cases.
- On average, there were **seven** hospital admissions or ED visits *per day specifically for substance use* among this population during this three-year period; the average cost was **\$24,438** per day.

Additional Treatment Costs

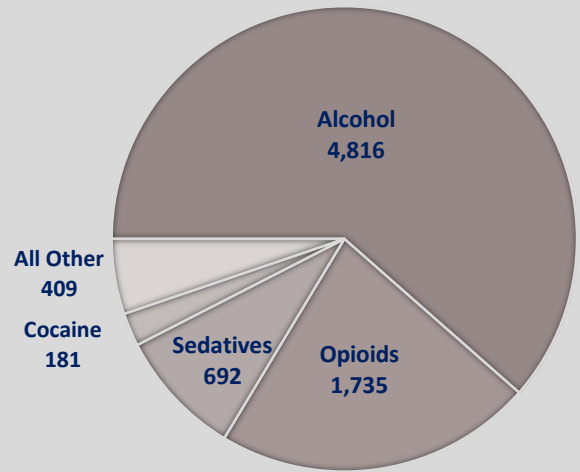
The Medicare fee-for-service enrollees (age 65 and older) admitted to the hospital or treated in the emergency department for substance use during 2016-2018 incurred additional outpatient and physician service claims for substance use (approximately 18,000 such claims) for an additional cost of \$2.3 million.

*The Medicare Fee-for-Service (FFS) program makes up approximately 58% of Medicare enrollees.

Payments by Substance Type (3 years 2016-2018)
(\$26.8 million)



Number by Substance Type (3 years 2016-2018)
(7,833 hospital admissions/ED Visits)

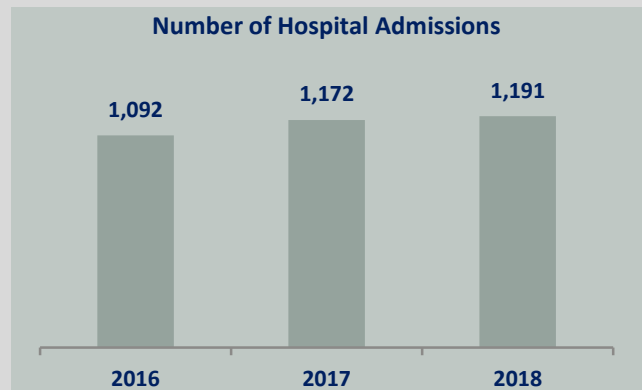
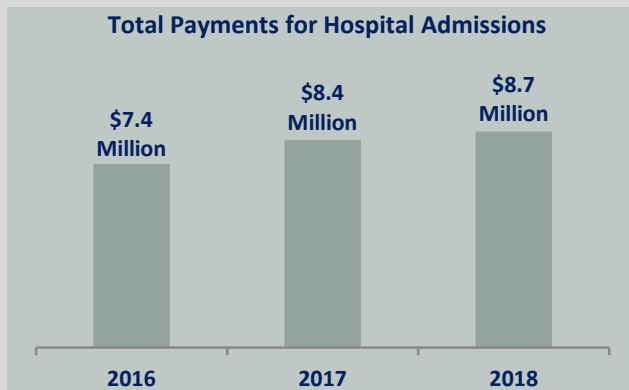


- At \$13.2 million, alcohol comprised 49% of the total payments for substance use admissions and ED visits. At \$7.8 million, opioids were associated with 29% of the total payments and sedatives with 12%.
- At 4,816, alcohol made up 61% of the cases. Opioids had the second highest percentage at 22% (1,735 cases). Sedatives and cocaine made up 9% and 2%, respectively (692 cases and 181 cases).

**Number and Average Payments by Substance Type:
All Cases, Hospital Admissions and Emergency Department Visits**

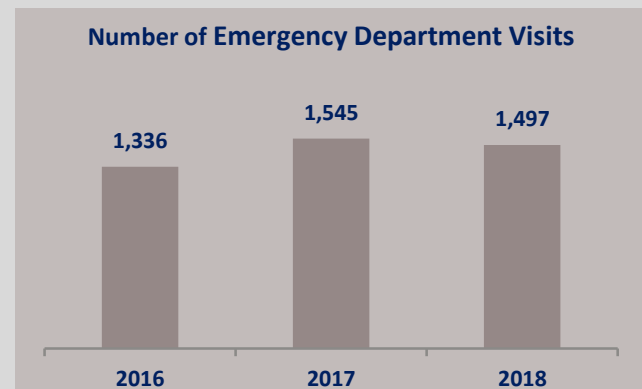
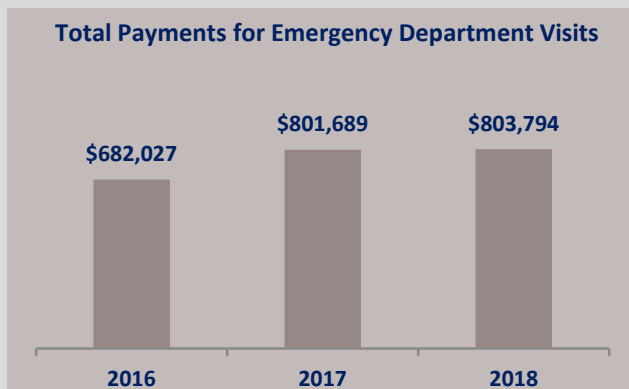
Substance	All Cases		Hospital Admissions		Emergency Department Visits	
	Number	Average Payment	Number	Average Payment	Number	Average Payment
Alcohol	4,816	\$2,741	1,852	\$6,289	2,964	\$525
Opioids	1,735	\$4,484	933	\$7,901	802	\$509
Sedatives	692	\$4,721	431	\$7,213	261	\$608
Cocaine	181	\$7,153	108	\$11,616	73	\$551
Other	409	\$3,031	131	\$8,503	278	\$452

Hospital Admissions



- Payments for hospital admissions for substance use among Pennsylvania Medicare fee for service (FFS) enrollees age 65 and older amounted to \$24.5 million for the three-year period 2016-2018.
- The number of admissions totaled 3,455. Approximately 30% of the hospital admissions were for overdose; 70% were for substance dependence or abuse. Between 2016 and 2018, total payments increased 18% (from \$7.4 to \$8.7 million); the number of cases increased 9% (from 1,092 to 1,191).

Emergency Department (ED) Visits



- Payments for emergency department (ED) visits for substance use among Pennsylvania Medicare FFS enrollees age 65 and older amounted to \$2.3 million for the three-year period 2016-2018.
- The number of ED visits totaled 4,378. Approximately 14% of the ED visits were for overdose; 86% were for substance dependence or abuse. Payments increased 18% (from \$682,027 to \$803,794) between 2016 and 2018.
- The number of ED visits increased 16% from (1,336 to 1,545) between 2016 and 2017, and then decreased 3% (to 1,497) in 2018.

Demographic Differences

Rate of Hospital Admissions and Emergency Department Visits for Overdose or Substance Use Disorder Per 1,000 Pennsylvania Medicare Fee-For-Service Enrollees Age 65 and Older Three-Year Period, 2016-2018; Statewide Rate: 6.1 per 1,000

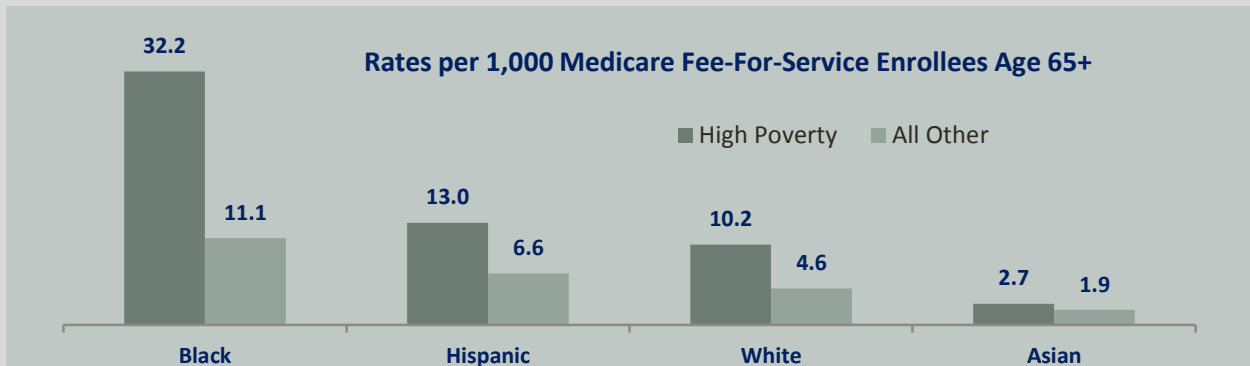
By Race/Ethnicity, Male/Female, Age

Race/Ethnicity:	Male/Female:	Age:
Black..... 21.7	Male 8.9	Age 65-69..... 9.1
Hispanic..... 9.4	Female 3.8	Age 70-74..... 6.5
White 5.1		Age 75-79..... 3.9
Asian 2.7		Age 80-84..... 3.2
		Age 85+ 2.1

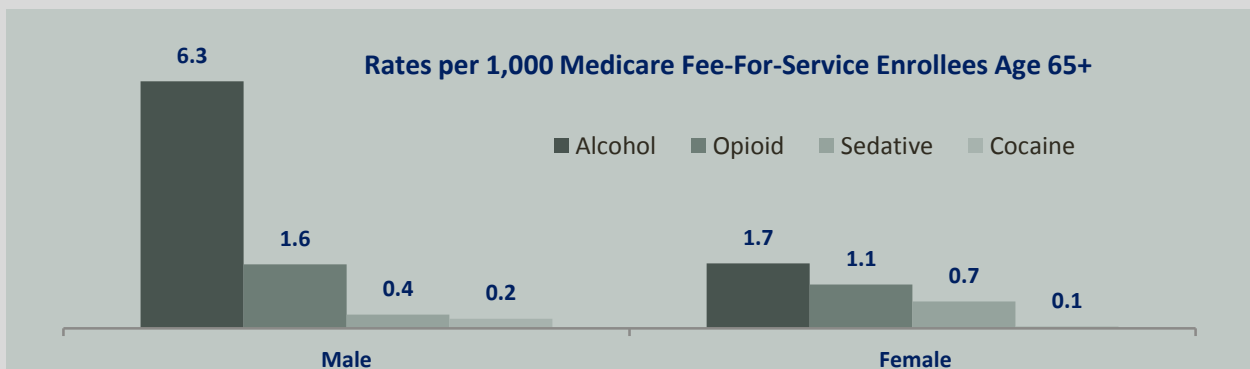
By Community Socioeconomic Characteristics: (Using 2017 US Census Bureau American Community Survey estimates)

Poverty:	Bachelor's Degree Education:	Unemployment:
High Poverty*..... 15.6	Low Rate of Bachelor's*.. 9.7	High Unemployment*... 16.1
All Other..... 4.8	All Others 5.6	All Others 5.0
<small>*Residents living in areas where 20% or more of the population lives in poverty.</small>	<small>*Residents living in areas where less than 15% of the population has a bachelor's degree education.</small>	<small>*Residents living in areas where the unemployment rate is 10% or more.</small>

Differences in Rates by Race/Ethnicity and Poverty:



Differences in Substance Type by Male/Female:



**Rate of Hospital Admissions and Emergency Department Visits for Overdose or Substance Use Disorder
Per 1,000 Pennsylvania Medicare Fee-For-Service Enrollees Age 65 and Older
Three-Year Period, 2016-2018**

	Number	Rate per 1,000 Enrollees	Total Payments
Statewide	7,833	6.1	\$26,784,251
Adams	60	4.5	\$111,649
Allegheny	884	11.1	\$2,328,719
Armstrong	23	4.5	\$96,245
Beaver	54	4.7	\$182,431
Bedford	23	4.6	\$20,303
Berks	249	5.5	\$797,713
Blair	61	5.1	\$197,808
Bradford	23	2.7	\$54,244
Bucks	437	6.0	\$1,640,620
Butler	63	4.8	\$234,338
Cambria	47	4.7	\$185,371
Cameron	NR	NR	NR
Carbon	47	4.8	\$174,382
Centre	36	3.5	\$117,983
Chester	279	4.7	\$1,080,986
Clarion	NR	NR	NR
Clearfield	41	4.6	\$112,035
Clinton	13	3.6	\$29,589
Columbia	37	4.9	\$126,363
Crawford	51	4.6	\$174,623
Cumberland	104	3.6	\$359,610
Dauphin	136	6.2	\$517,953
Delaware	494	7.7	\$2,264,101
Elk	29	5.8	\$47,362
Erie	94	3.8	\$274,630
Fayette	37	3.3	\$108,329
Forest	NR	NR	NR
Franklin	33	1.6	\$176,087
Fulton	NR	NR	NR
Greene	NR	NR	NR
Huntingdon	14	2.7	\$29,187
Indiana	23	3.9	\$66,766
Jefferson	15	2.9	\$45,209

	Number	Rate per 1,000 Enrollees	Total Payments
Juniata	NR	NR	NR
Lackawanna	140	5.0	\$335,876
Lancaster	217	3.8	\$639,838
Lawrence	30	3.9	\$78,834
Lebanon	34	2.1	\$108,683
Lehigh	199	4.8	\$756,393
Luzerne	231	5.2	\$612,296
Lycoming	57	4.0	\$148,602
McKean	NR	NR	NR
Mercer	49	4.3	\$111,647
Mifflin	31	6.5	\$75,124
Monroe	114	5.7	\$268,402
Montgomery	580	5.6	\$2,338,064
Montour	12	6.8	\$29,202
Northampton	193	4.9	\$589,779
Northumberland	39	3.5	\$112,430
Perry	12	2.7	\$40,494
Philadelphia	1853	17.3	\$6,852,250
Pike	26	3.7	\$83,113
Potter	NR	NR	NR
Schuylkill	36	1.8	\$107,151
Snyder	NR	NR	NR
Somerset	24	3.7	\$49,366
Sullivan	11	10.2	\$33,021
Susquehanna	15	2.4	\$47,410
Tioga	12	1.9	\$53,923
Union	13	2.8	\$43,477
Venango	36	6.1	\$130,067
Warren	15	2.5	\$59,411
Washington	66	4.1	\$174,750
Wayne	33	2.7	\$84,252
Westmoreland	113	4.4	\$346,343
Wyoming	17	4.1	\$62,969
York	165	3.4	\$712,459

NR: Not reported due to low volume.