



Potentially Preventable Hospitalizations in Pennsylvania

Potentially preventable hospitalizations[†] are inpatient stays for select conditions that might have been avoided with effective primary or preventive care—thereby avoiding the need for a more expensive hospital admission. This brief examines potentially preventable hospitalizations for Pennsylvania residents aged 18 and older discharged from Pennsylvania acute care hospitals in FY 2017 (July 1, 2016 through June 30, 2017).

1 in 8 Hospitalizations

Approximately 1 in 8 hospitalizations (12.7%) were considered potentially preventable in FY 2017. Overall, there were 171,211 potentially preventable hospital admissions during that time period.

\$1.2 billion

Potentially preventable admissions amounted to an estimated \$1.2 billion in hospital payments in FY 2017.

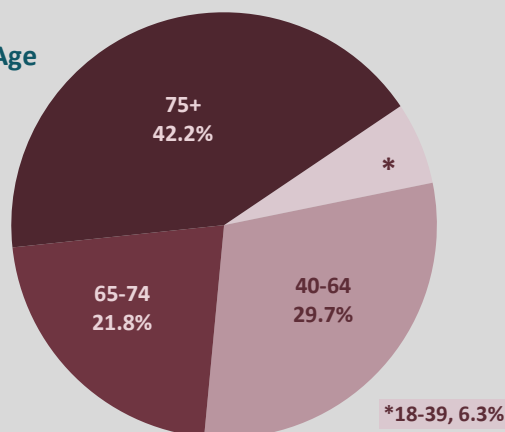
Payments were estimated by applying the average Medicare fee-for-service payment (2015 data) to all cases.

↓ 24%

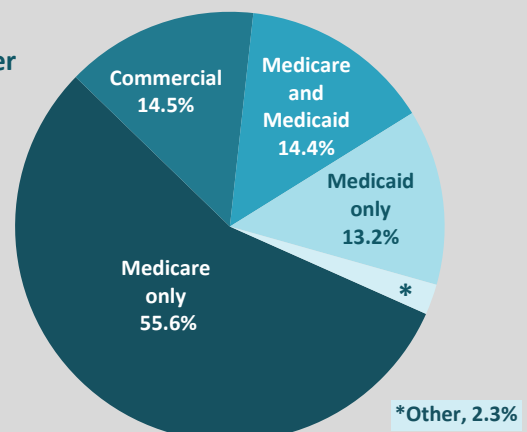
Rates of potentially preventable hospitalizations have decreased. There were 169.6 potentially preventable hospitalizations per 10,000 Pennsylvania residents in FY 2017—a decrease of 24% since FY 2008 when the rate was 221.7 per 10,000.

Potentially Preventable Hospitalizations – FY 2017

By Age



By Payer



[†] Potentially preventable hospitalizations were identified by a set of Prevention Quality Indicators developed by the Agency for Healthcare Research and Quality (AHRQ). It is important to emphasize the phrase “potentially preventable” when examining these hospitalizations. Hospital stays that might be avoidable for younger patients might be less so for older patients in a weakened state. Yet identifying areas within Pennsylvania with higher rates of potentially preventable hospitalizations highlights opportunities where early detection, timely care and patient education might lead to improved outcomes and decreased costs.

* This brief was revised to reflect corrected population data files from AHRQ. Population counts for Pennsylvania counties were affected, resulting in changes to the population-based rates including county rates.

Potentially Preventable Hospitalizations by Condition – FY 2017

Condition	Number of Cases	Percent of Cases	Total Number of Hospital Days	Total Payment (in millions)
Heart Failure	49,888	29.1%	254,722	\$373.3
COPD ¹ or Asthma (adults age 40 and older)	37,619	22.0%	160,168	\$233.1
Pneumonia	20,073	11.7%	86,426	\$137.1
Dehydration	17,796	10.4%	69,669	\$103.8
Urinary Tract Infection	16,162	9.4%	60,441	\$83.7
Diabetes – Long-term Complications	9,178	5.4%	53,848	\$90.8
Hypertension	5,493	3.2%	17,209	\$28.0
Diabetes – Short-term Complications	5,219	3.0%	17,176	\$34.2
Diabetes – Uncontrolled	5,078	3.0%	17,130	\$28.3
Lower Extremity Amputation ²	3,099	1.8%	34,288	\$69.0
Asthma (adults age 18 to 39)	1,606	0.9%	4,174	\$9.0
Total	171,211	100.0%	775,251	\$1.2 billion

¹ COPD (Chronic Obstructive Pulmonary Disease)

² Among patients with diabetes

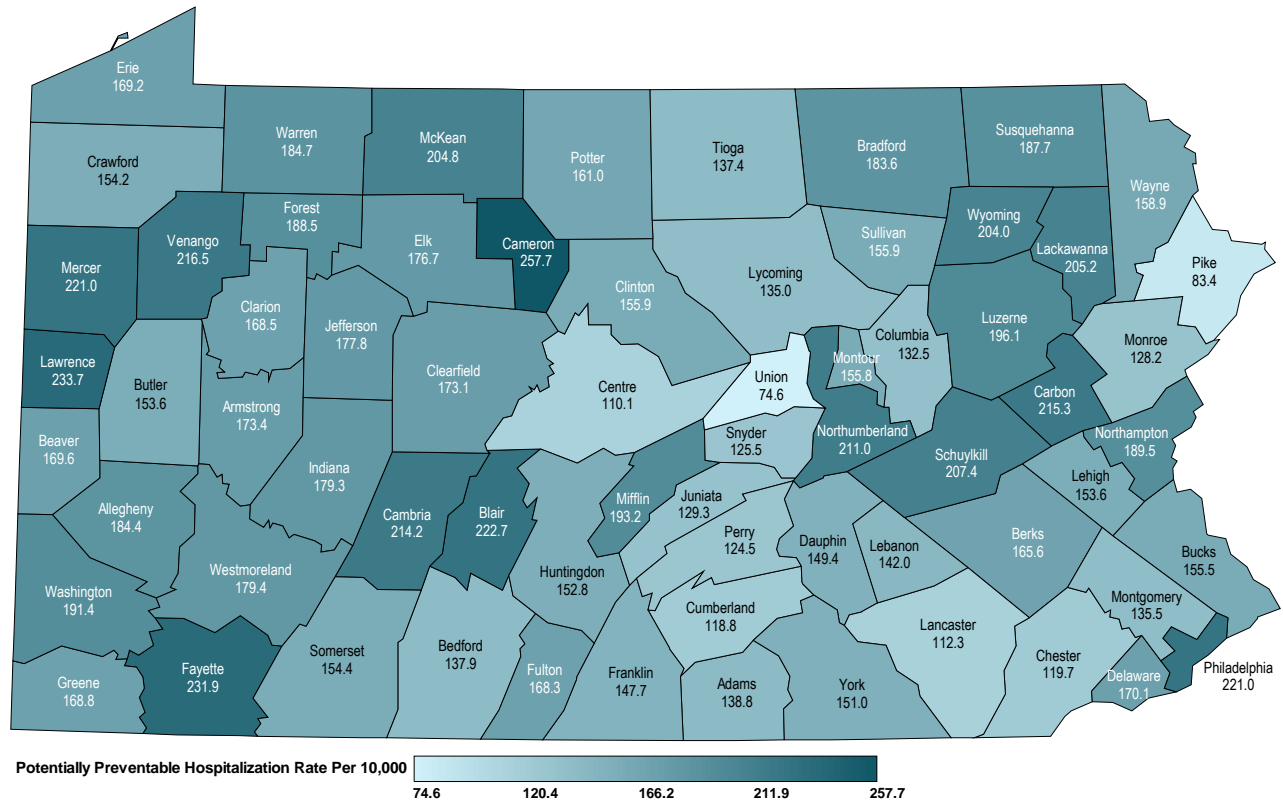
About PHC4

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. 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.

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Number of Potentially Preventable Hospitalizations per 10,000 County Residents, FY 2017



Statewide Population-based Rates – FY 2017

Statewide, there were 169.6 potentially preventable admissions per 10,000 Pennsylvania residents in FY 2017. Higher rates for some counties might be dependent on larger numbers of residents with high-risk characteristics (e.g., factors related to age, race/ethnicity and income). County rates were not adjusted for these population differences so that important effects of these patient characteristics were not masked by such adjustment.

In general, population-based data showed higher rates of potentially preventable hospitalizations among older residents, black residents and lower income residents:

- For residents aged 75 and older, the rate was 732.7 per 10,000.
- For black (non-Hispanic) residents, the rate was 280.3 per 10,000. The rates for white (non-Hispanic) and Hispanic residents were 166.3 and 84.3, respectively.
- For lower income residents of all races, the rate was 258.1 per 10,000.
- The rate was 179.2 for females and 159.5 for males.

Rate Calculations. The statewide rate and rates by county, age, race/ethnicity and gender include residents 18 and older and were calculated using PHC4 hospital admission data and US Census Bureau population estimates. Rates by income were based on Census median household income estimates. Lower income residents were defined as those living in areas where the median household income was less than \$30,000 per year.

Statewide and Regional Rates by Condition – FY 2017

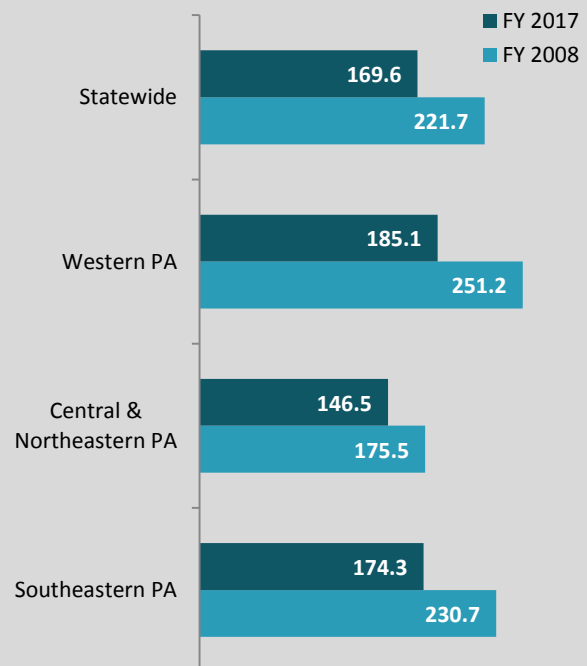
Condition	Rate per 10,000 Residents			
	Statewide	Western PA	Central and Northeastern PA	Southeastern PA
COPD ¹ or Asthma (<i>adults age 40 and older</i>)	58.0	65.9	44.9	61.1
Heart Failure	49.4	52.9	43.5	51.0
Pneumonia	19.9	24.9	19.0	16.8
Dehydration	17.6	18.4	15.6	18.5
Urinary Tract Infection	16.0	17.9	14.6	15.6
Diabetes – Long-term Complications	9.1	8.8	7.4	10.5
Hypertension	5.4	4.3	4.4	7.0
Diabetes – Short-term Complications	5.2	5.0	4.8	5.6
Diabetes – Uncontrolled	5.0	4.9	4.1	5.8
Asthma (<i>adults age 18 to 39</i>)	4.5	3.4	2.9	6.1
Lower Extremity Amputation ²	3.1	3.0	2.8	3.3

¹ COPD (Chronic Obstructive Pulmonary Disease)

² Among patients with diabetes

Changes in Statewide and Regional Rates – FY 2008 to FY 2017

- Statewide, the rate of potentially preventable hospitalizations dropped 24% between FY 2008 and FY 2017, from 221.7 to 169.6 per 10,000 residents.
- Western PA had the highest rate of potentially preventable admissions at 185.1 per 10,000 residents—a 26% decrease since FY 2008 when the rate was 251.2.
- Central and Northeastern PA had the lowest rate at 146.5 per 10,000 residents—a 17% decrease since FY 2008 when the rate was 175.5.
- Southeastern PA had a 24% decrease in the rate of potentially preventable admissions between FY 2008 and FY 2017, from 230.7 to 174.3 per 10,000 residents.



Potentially Preventable Hospitalizations by County, FY 2008 and FY 2017

	FY 2008		FY 2017	
	Total Number of Hospitalizations	Rate per 10,000 Residents	Total Number of Hospitalizations	Rate per 10,000 Residents
Statewide	216,148	221.7	171,211	169.6
Adams	817	104.2	1,128	138.8
Allegheny	25,331	261.2	18,262	184.4
Armstrong	1,264	232.2	934	173.4
Beaver	3,467	252.9	2,286	169.6
Bedford	641	163.7	536	137.9
Berks	5,095	166.2	5,306	165.6
Blair	2,128	214.9	2,204	222.7
Bradford	1,022	216.4	875	183.6
Bucks	8,329	173.0	7,734	155.5
Butler	2,813	198.3	2,282	153.6
Cambria	2,627	227.7	2,323	214.2
Cameron	123	291.8	100	257.7
Carbon	1,308	259.3	1,108	215.3
Centre	1,482	126.9	1,452	110.1
Chester	5,825	157.3	4,748	119.7
Clarion	830	264.7	522	168.5
Clearfield	1,535	231.9	1,141	173.1
Clinton	737	254.3	479	155.9
Columbia	1,316	256.6	706	132.5
Crawford	1,444	211.5	1,044	154.2
Cumberland	2,544	140.2	2,337	118.8
Dauphin	3,182	159.6	3,182	149.4
Delaware	10,884	256.8	7,426	170.1
Elk	705	275.8	436	176.7
Erie	3,466	161.4	3,641	169.2
Fayette	3,901	341.3	2,491	231.9
Forest	161	276.9	131	188.5
Franklin	2,014	182.1	1,769	147.7
Fulton	268	231.4	196	168.3
Greene	874	278.6	505	168.8
Huntingdon	625	171.4	563	152.8
Indiana	1,883	271.8	1,237	179.3

	FY 2008		FY 2017	
	Total Number of Hospitalizations	Rate per 10,000 Residents	Total Number of Hospitalizations	Rate per 10,000 Residents
Jefferson	1,070	302.5	619	177.8
Juniata	426	239.9	251	129.3
Lackawanna	4,285	259.7	3,452	205.2
Lancaster	5,286	139.9	4,607	112.3
Lawrence	2,561	359.8	1,630	233.7
Lebanon	1,590	159.3	1,520	142.0
Lehigh	4,629	177.7	4,314	153.6
Luzerne	5,955	239.9	4,986	196.1
Lycoming	1,446	157.7	1,231	135.0
McKean	1,001	294.0	687	204.8
Mercer	2,234	245.2	1,997	221.0
Mifflin	967	272.9	700	193.2
Monroe	2,362	188.5	1,691	128.2
Montgomery	11,119	185.0	8,736	135.5
Montour	291	209.9	229	155.8
Northampton	5,271	229.0	4,550	189.5
Northumberland	1,921	263.7	1,571	211.0
Perry	487	140.1	449	124.5
Philadelphia	36,896	315.4	26,873	221.0
Pike	383	82.3	378	83.4
Potter	320	243.4	216	161.0
Schuylkill	3,189	269.5	2,406	207.4
Snyder	342	115.5	393	125.5
Somerset	1,218	195.4	952	154.4
Sullivan	103	204.4	84	155.9
Susquehanna	702	219.8	623	187.7
Tioga	591	183.4	454	137.4
Union	334	95.7	275	74.6
Venango	1,138	265.8	915	216.5
Warren	632	195.5	597	184.7
Washington	4,673	286.0	3,194	191.4
Wayne	916	224.8	671	158.9
Westmoreland	7,929	273.0	5,204	179.4
Wyoming	649	300.9	450	204.0
York	4,591	140.3	5,222	151.0