

PA Health Care Cost Containment Council



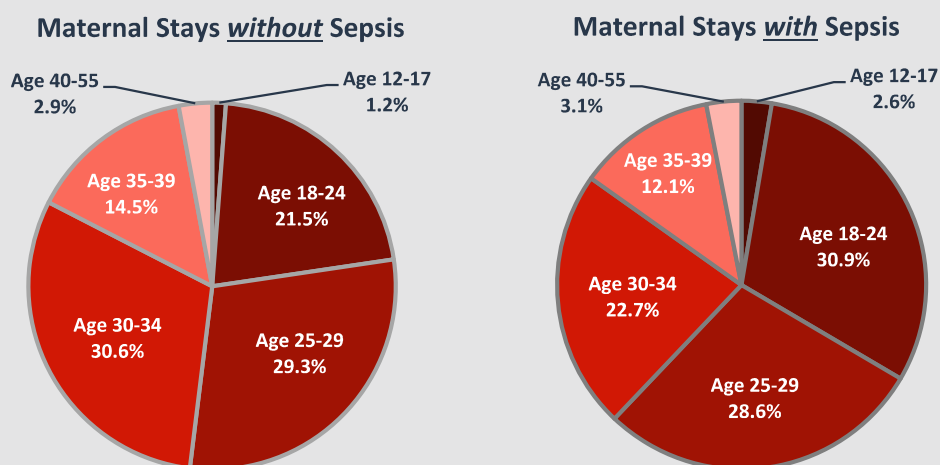
Maternal Hospitalizations and Sepsis

This research brief focuses on patients hospitalized for a delivery or other pregnancy-related condition who also had a diagnosis of sepsis. Sepsis is a life-threatening condition characterized by a system-wide inflammatory response to infection that can worsen to acute organ dysfunction.

Included are Pennsylvania female residents and non-residents ages 12-55 who were hospitalized for a maternal stay and discharged from a Pennsylvania acute care hospital from October 2015 through September 2020. For the maternal stays with a diagnosis of sepsis, the sepsis could have developed prior to the hospitalization or during the hospital stay. The results in this report were not adjusted for age or other patient characteristics to avoid masking important sociodemographic differences.

- There were 698,576 maternal hospitalizations in total during this five-year timeframe; sepsis was present in 4,794 (0.69%) of these stays. This represents approximately 1 out of every 146 maternal hospitalizations, or 6.9 per 1,000.
- The average length of the maternal hospital stay was longer for cases *with* sepsis (5.1 days) compared to those *without* sepsis (2.7 days), a statistically significant difference.
- The in-hospital mortality rate was higher for maternal stays *with* sepsis (0.30%) compared to those *without* sepsis (0.01%). This difference was also statistically significant.

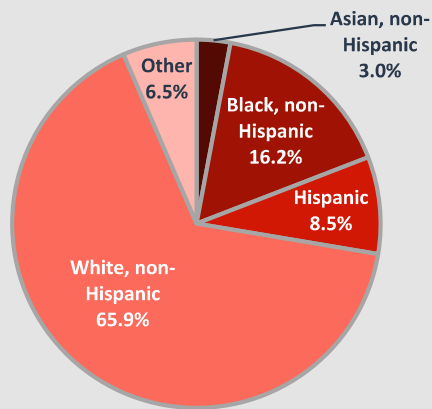
By Age Category



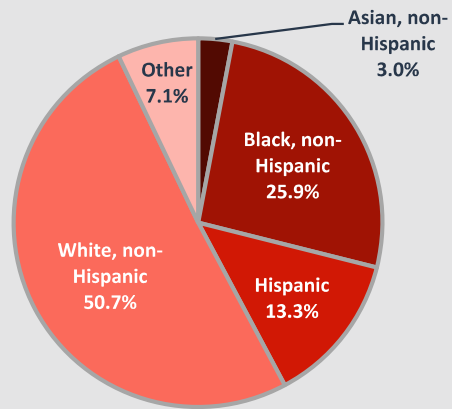
- In comparing maternal patients *without* sepsis to those *with* sepsis, sepsis was *more* likely among patients ages 12-17 and 18-24 and *less* likely among patients ages 30-34 and 35-39.
- While patients 12-17 years comprised 1.2% of maternal stays *without* sepsis, they comprised 2.6% of maternal stays *with* sepsis. Patients 18-24 years comprised 21.5% of maternal stays *without* sepsis, but they comprised 30.9% of maternal stays *with* sepsis.
- While patients 30-34 years comprised 30.6% of maternal stays *without* sepsis, they comprised 22.7% of maternal stays *with* sepsis. Patients 35-39 years comprised 14.5% of maternal stays *without* sepsis, but they comprised 12.1% of maternal stays *with* sepsis.

By Race/Ethnicity

Maternal Stays *without* Sepsis



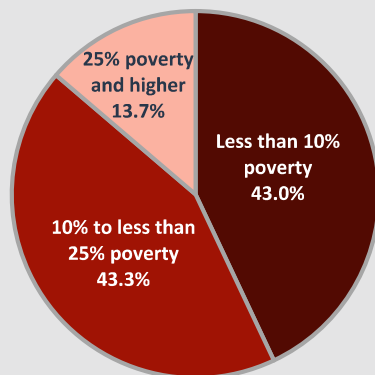
Maternal Stays *with* Sepsis



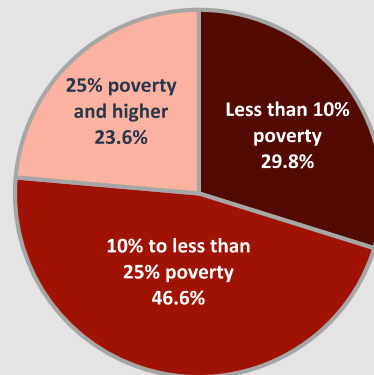
- In comparing maternal patients *without* sepsis to those *with* sepsis, sepsis was *more* likely in Black, non-Hispanic and Hispanic patients and *less* likely among White, non-Hispanic patients.
- While Black, non-Hispanic patients comprised 16.2% of maternal stays *without* sepsis, they comprised 25.9% of maternal stays *with* sepsis. Hispanic patients comprised 8.5% of maternal stays *without* sepsis, but they comprised 13.3% of maternal stays *with* sepsis.
- White, non-Hispanic patients comprised 65.9% of maternal stays *without* sepsis, but they comprised 50.7% of maternal stays *with* sepsis.

By Poverty Rate *

Maternal Stays *without* Sepsis



Maternal Stays *with* Sepsis



- In comparing maternal patients *without* sepsis to those *with* sepsis, sepsis was *more* likely in patients from high poverty areas.
- Patients living in the highest poverty areas (where 25 percent or more of the population lives in poverty) comprised 13.7% of maternal stays *without* sepsis, but they comprised 23.6% of maternal stays *with* sepsis. Patients living in areas where 10 percent to less than 25 percent of the population lives in poverty comprised 43.3% of maternal stays *without* sepsis but 46.6% of maternal stays *with* sepsis.
- Patients living in the lowest poverty areas (where less than 10 percent of the population lives in poverty) comprised 43.0% of maternal stays *without* sepsis but 29.8% of maternal stays *with* sepsis.

*Poverty rates reported in this brief were based on 2019 US Census Bureau estimates at the patient zip code level.

Maternal Hospital Stays with Sepsis by County, Oct 2015 – Sep 2020

Rates are based on Pennsylvania residents only (682,271 maternal stays or 97.7% of all maternal hospitalizations).

There were 4,620 sepsis cases among maternal stays for Pennsylvania residents for a rate of 6.8 per 1,000.

County	Maternal Stays <u>with</u> Sepsis	Rate per 1,000 Maternal Stays
All PA Residents	4,620	6.8
Adams	22	5.0
Allegheny	233	3.5
Armstrong	10	3.6
Beaver	21	2.6
Bedford	16	7.6
Berks	225	9.3
Blair	17	2.7
Bradford	16	5.6
Bucks	152	6.2
Butler	32	3.4
Cambria	39	5.8
Cameron	NR	NR
Carbon	17	5.9
Centre	27	4.9
Chester	108	4.4
Clarion	NR	NR
Clearfield	22	6.2
Clinton	16	9.6
Columbia	36	12.3
Crawford	34	7.9
Cumberland	55	4.3
Dauphin	69	4.0
Delaware	268	7.9
Elk	NR	NR
Erie	83	5.4
Fayette	23	3.8
Forest	NR	NR
Franklin	38	5.4
Fulton	NR	NR
Greene	NR	NR
Huntingdon	19	9.9
Indiana	28	7.6
Jefferson	27	11.8

County	Maternal Stays <u>with</u> Sepsis	Rate per 1,000 Maternal Stays
Juniata	NR	NR
Lackawanna	69	6.3
Lancaster	171	5.7
Lawrence	22	4.7
Lebanon	46	5.9
Lehigh	197	9.4
Luzerne	126	7.4
Lycoming	38	6.1
McKean	NR	NR
Mercer	20	3.8
Mifflin	12	5.7
Monroe	58	8.0
Montgomery	258	5.9
Montour	12	11.2
Northampton	141	9.1
Northumberland	47	10.2
Perry	20	8.2
Philadelphia	1,323	11.5
Pike	NR	NR
Potter	NR	NR
Schuylkill	34	5.1
Snyder	11	6.2
Somerset	10	3.1
Sullivan	NR	NR
Susquehanna	11	7.3
Tioga	NR	NR
Union	16	9.3
Venango	10	4.2
Warren	15	9.0
Washington	24	2.3
Wayne	NR	NR
Westmoreland	55	3.5
Wyoming	NR	NR
York	159	6.7

NR: Not reported due to low volume.