

Pregnancy-Associated Deaths in Montgomery County 2008-2016

These data summarize the findings of pregnancy-associated deaths to Montgomery County residents during 2008-2016 that were identified by the Ohio Department of Health's (ODH) Pregnancy-Associated Mortality Review (PAMR) and are intended to supplement the statewide report [A Report on Pregnancy-Associated Deaths in Ohio 2008-2016](#).

Table 1. Montgomery County and Ohio Pregnancy-Associated Deaths by Pregnancy-Relatedness, 2008-2016

Pregnancy-Relatedness	# Montgomery County Deaths	Montgomery County Mortality Ratio*	# OH Deaths	OH Mortality Ratio*
Pregnancy-Associated (Total)	48	78.7	610	48.2
Pregnancy-Related	12	19.7	186	14.7
Pregnancy-Associated, but Not Related (due to a cause unrelated to pregnancy)	28	45.9	368	29.1
Pregnancy-Associated, but Unable to Determine Pregnancy-Relatedness	8	**	56	4.4

*Deaths per 100,000 live births **Ratios are suppressed when the numerator is less than 10

Resident live births source: ODH Bureau of Vital Statistics, Ohio Resident Live Birth File

Table 2. Montgomery County Pregnancy-Associated Deaths, by Demographics, 2008-2016

Demographic Characteristic	# of Deaths
Race/Ethnicity	
White, non-Hispanic	27
Black, non-Hispanic	17
Hispanic	1
Other	3
Age Group	
Younger than 20 years	1
20-24 years	11
25-29 years	13
30-34 years	12
35-44 years	11
Source of Pay	
Medicaid	33
Private Insurance	13
Other	2
Education Level	
8th grade or less	1
9th-12th grade; no diploma	4
High school grad. or GED completed	24
Some college; no degree	10
Associate Degree	6
Bachelor's Degree	2
Master's Degree	1
Total	48

ODH identified 48 deaths to female residents of Montgomery County who died from 2008 through 2016 whose deaths were temporally related to pregnancy (Table 1). These deaths occurred while a woman was pregnant or within one year following the end of pregnancy and were all considered pregnancy-associated. Thus, during this period, the pregnancy-associated mortality ratio for Montgomery County was 78.7 per 100,000 live births, compared with 48.2 in all of Ohio during this same time period. PAMR determined 12 of the 48 deaths to be pregnancy-related, and 28 to be pregnancy-associated but not related; for the remaining 8 deaths, PAMR was unable to make a determination on pregnancy-relatedness. Thus, during this period, the pregnancy-related mortality ratio for Montgomery County was 19.7 per 100,000 live births, compared with 14.7 in all of Ohio during this same time period.

Table 2 displays the demographic characteristics of the women who died. Most women were white, had Medicaid insurance, and had a high school diploma or equivalent education.

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Table 3. Montgomery County Pregnancy-Associated Deaths by Underlying Cause of Death and Timing of Death in Relation to Pregnancy, 2008-2016*

Characteristic	# of Deaths
Timing of Death	
Pregnant at the time of death	14
Pregnant within 42 days of death	5
Pregnant 43 to 365 days of death	29
Total	48
Underlying Cause of Death*	# of Deaths
Unintentional Injury	9
Cardiovascular and Coronary Conditions	5
Cardiomyopathy	3
Homicide	3
Embolisms	2
Infections	2
Mental Health Conditions	2
Pre-eclampsia and Eclampsia	2
Pulmonary Conditions	2
Unknown COD	2
Autoimmune Diseases	1
Cerebrovascular Accidents	1
Malignancies	1
Seizure Disorders	1
Total	36

**Causes of death are displayed only for deaths that occurred during 2008-2014. Among the three reviewed Montgomery county, 2015-2016 pregnancy-associated deaths, the causes of death were mental health conditions (1), unintentional injury (1), and unknown COD (1).*

Among the 48 women who died, 14 women were pregnant at the time of death, 5 had been pregnant within 42 days of death, and 29 had been pregnant within 43 to 365 days of death. (Table 3). The underlying causes of death for deaths that occurred from 2008-2014 are displayed in Table 3. Deaths that occurred during 2015-2016, were not all fully reviewed because of the high volume of deaths to be reviewed in a single year.

The committee identified 166 unique contributing factors among the 39 reviewed, pregnancy-associated deaths. The types of factors identified and the level at which they operated (i.e., patient/family, provider, or system) are displayed in Table 4.

Table 4. Contributing Factors Among 39 Reviewed Montgomery County Pregnancy-Associated Deaths, 2008-2016

Factor Level	Factor Class	# of Occurrences
Patient/Family	Access/Financial	3
	Adherence	15
	Childhood Abuse/Trauma	1
	Chronic Disease	27
	Cultural/Religious	1
	Delay	14
	Knowledge	14
	Mental Health Conditions	10
	Other	1
	Social Support/Isolation	2
	Substance Use Disorder- Alcohol, Illicit/Prescription Drugs	12
	Tobacco Use	5
	Unstable Housing	1
	Violence	3
Provider	Assessment	5
	Clinical Skill/Quality of Care	3
	Communication	3
	Continuity of Care/Care Coordination	3
	Delay	7
	Other	3
	Referral	6
System	Access/Financial	4
	Clinical Skill/Quality of Care	3
	Communication	5
	Continuity of Care/Care Coordination	9
	Other	1
	Outreach	2
	Personnel	3