

# Pregnancy-Associated Deaths in Summit County 2008-2016

These data summarize the findings of pregnancy-associated deaths to Summit 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. Summit County and Ohio Pregnancy-Associated Deaths by Pregnancy-Relatedness, 2008-2016**

Pregnancy-Relatedness	# Summit County Deaths	Summit County Mortality Ratio*	# OH Deaths	OH Mortality Ratio*
Pregnancy-Associated (Total)	29	52.4	610	48.2
Pregnancy-Related	8	**	186	14.7
Pregnancy-Associated, but Not Related (due to a cause unrelated to pregnancy)	20	36.1	368	29.1
Pregnancy-Associated, but Unable to Determine Pregnancy-Relatedness	1	**	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. Summit County Pregnancy-Associated Deaths, by Demographics, 2008-2016**

Demographic Characteristic	# of Deaths
<b>Race/Ethnicity</b>	
White, non-Hispanic	24
Black, non-Hispanic	5
<b>Age Group</b>	
Younger than 20 years	3
20-24 years	7
25-29 years	4
30-34 years	9
35-44 years	6
<b>Source of Pay</b>	
Medicaid	24
Private Insurance	5
<b>Education Level</b>	
9th-12th grade; no diploma	4
High school grad. or GED completed	13
Some college; no degree	9
Associate degree	2
Bachelor's Degree	1
<b>Total</b>	<b>29</b>

ODH identified 29 deaths to female residents of Summit 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 Summit County was 52.4 per 100,000 live births, compared with 48.2 in all of Ohio during this same time period. PAMR determined 8 of the 28 deaths to be pregnancy-related; 20 were pregnancy-associated but not related. For the remaining 1 death, PAMR was unable to make a determination on pregnancy-relatedness.

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

Characteristic	# of Deaths
<b>Timing of Death</b>	
Pregnant at the time of death	5
Pregnant within 42 days of death	6
Pregnant 43 to 365 days of death	18
<b>Total</b>	<b>29</b>
<b>Underlying Cause of Death*</b>	
Unintentional Injury	5
Infections	3
Cardiovascular and Coronary Conditions	2
Homicide	1
Liver and Gastrointestinal Conditions	1
<b>Total</b>	<b>12</b>

\*Causes of death are displayed only for deaths that occurred during 2008-2014. Among the six reviewed Summit county, 2015-2016 pregnancy-associated deaths, the causes of death were cardiomyopathy (1), embolisms (1), infections (1), mental health conditions (1), and unintentional injury (2).

Among the 29 women who died, 5 women were pregnant at the time of death, 6 had been pregnant within 42 days of death, and 18 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 67 unique contributing factors among the 18 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 18 Reviewed Summit County Pregnancy-Associated Deaths, 2008-2016**

Factor Level	Factor Class	# of Occurrences
Patient/Family	Adherence	3
	Chronic Disease	6
	Delay	4
	Environmental	2
	Knowledge	4
	Mental Health Conditions	5
	Other	1
	Outreach	1
	Substance Use Disorder- Alcohol, Illicit/Prescription Drugs	8
	Tobacco Use	2
	Unstable Housing	1
	Provider	Assessment
Communication		1
Continuity of Care/Care Coordination		2
Clinical Skill/Quality of Care		1
Delay		2
Knowledge		1
Outreach		1
System		Access/Financial
	Clinical Skill/Quality of Care	2
	Continuity of Care/Care Coordination	5
	Policies/Procedures	2