Investigating All Causes of Pregnancy-Associated Death in Wisconsin through Maternal Mortality Review

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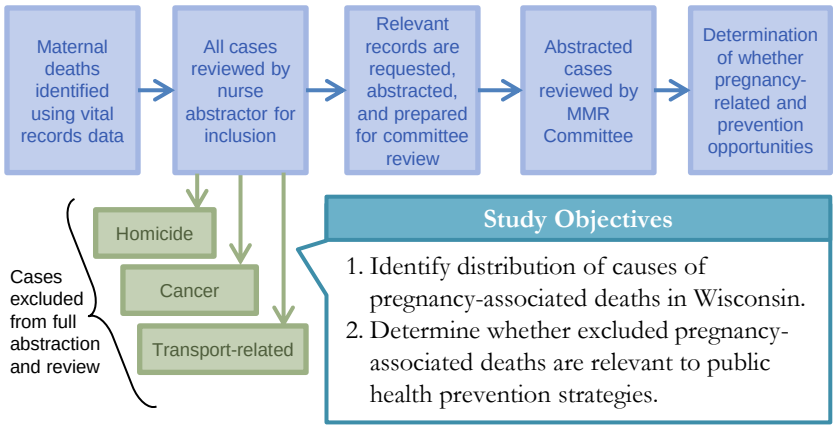
Background

The Wisconsin Maternal Mortality Review (MMR) Committee reviews medical records, coroner's reports, and vital records related to the deaths of pregnant and recently pregnant women in order to identify prevention opportunities. The Committee currently excludes homicide, transport-related, and cancer deaths from review and focuses on events likely due to pregnancy-related medical causes. In 2014, as part of an effort to better incorporate a public health approach into its reviews, the MMR program reassessed these exclusion criteria.

Overview of Current Maternal Mortality Review Process



Study Objectives

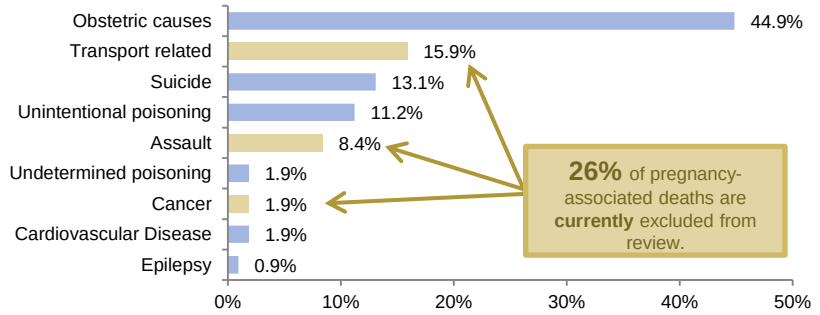
1. Identify distribution of causes of pregnancy-associated deaths in Wisconsin.
2. Determine whether excluded pregnancy-associated deaths are relevant to public health prevention strategies.

Step 1: Methods - Determine the Distribution of Pregnancy-Associated Deaths by Cause

- Pregnancy-associated deaths among Wisconsin residents were identified using mortality statistical files for 2008-2012.
- Deaths were considered pregnancy-associated if the death certificate pregnancy status variable indicated pregnant at the time of death, within 42 days of death, or within 43 days to one year of death.

Step 1: Results - Distribution of Pregnancy-Associated Deaths by Cause

About 50% of pregnancy-associated deaths in Wisconsin resulted from injuries, 45% from obstetric causes, and 5% from chronic diseases.



Distribution of pregnancy-associated deaths by cause (N=107), Wisconsin mortality statistical file, 2008-2012

Step 2: Explore Opportunities to Review Excluded Cases

Conduct Wisconsin MMR Homicide Pilot

1 Death certificates used to identify 4 cases for pilot

2 Death certificate, coroner, and law enforcement data abstracted

3 Cases reviewed by MMR sub-committee

Homicide Pilot: Key Findings
- **1** case: *not pregnancy related*
- **2** cases: *possibly pregnancy related*
- **1** case: *pregnancy related*
- Key themes: preconception mental health, intimate partner violence, and alcohol use

Research Other State MMR Findings

Cancer deaths[1]
- Key themes: coordinated care management, end-of-life planning, preconception care

Transport-related deaths[2]
- 88% preventable
- Key themes: seatbelt use, alcohol, and sedating medications

Recommended Action

Expand Maternal Mortality Review to investigate all causes of pregnancy-associated death, beginning with homicide and transport-related deaths.

Wisconsin Department of Health Services

P-01064 (6/2015)

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Citations
[1]Kavanaugh, Victoria. *Pregnancy - Associated Death Due to Cancer in Virginia, 1999 - 2007*. Virginia Department of Health, Office of the Chief Medical Examiner, Sept. 2014. Web. 13 Mar. 2015.
[2]*Motor Vehicle Collisions: The Leading Cause of Pregnancy-Associated Death in Virginia*. Virginia Department of Health, Office of the Chief Medical Examiner, April 2014. Web. 13 Mar. 2015.