

MATERNAL MORTALITY IN SOUTH CAROLINA 2011-2015

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Introduction

- Maternal mortality has been increasing in incidence across the United States in recent years¹.
- In 2016 a bill was passed to create a maternal mortality review process for pregnancy-related deaths in SC.

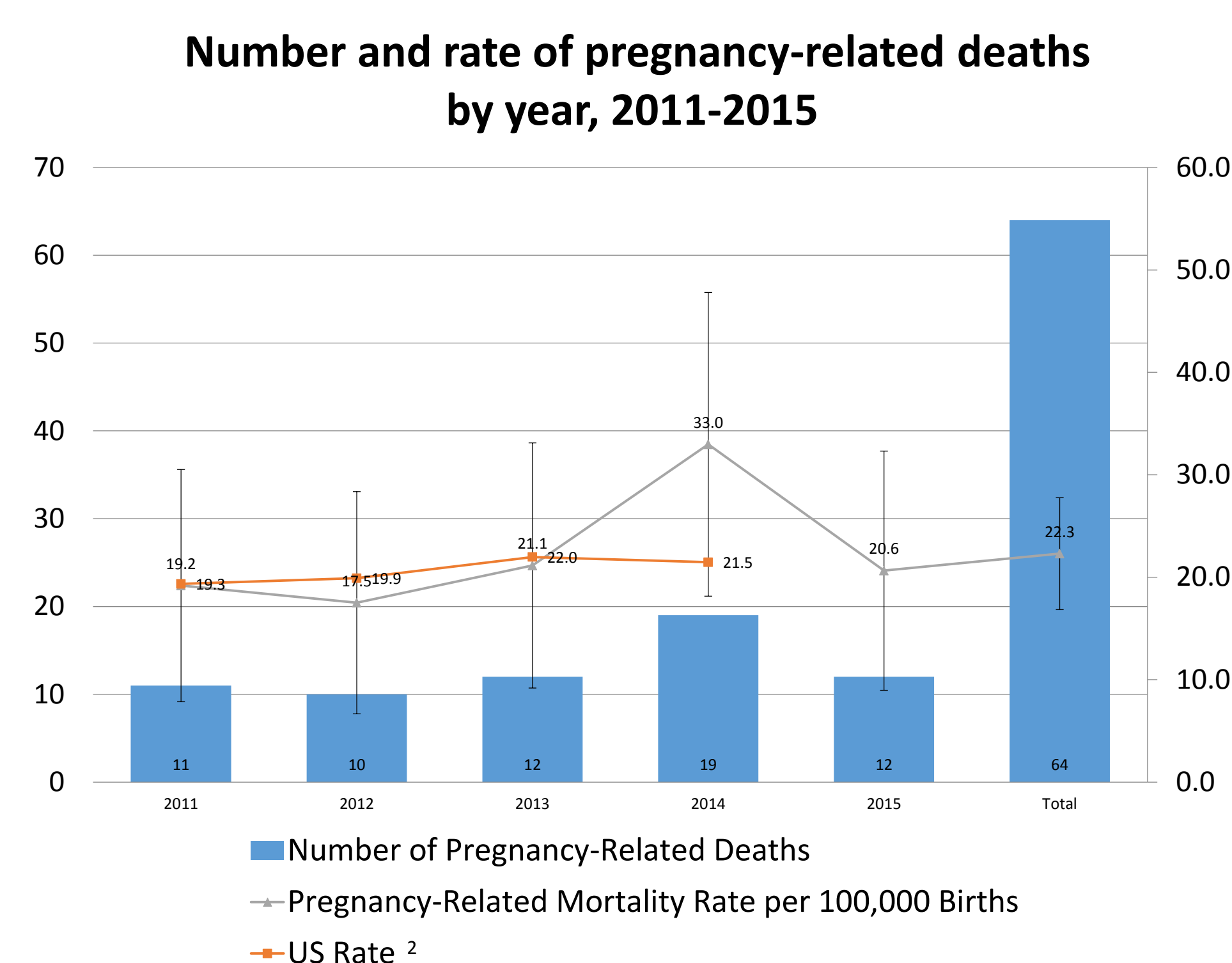
Objective

- The purpose of this analysis is to use SC vital records data to provide some basic incidence and demographic estimates related to maternal mortality until more detailed data are available from the maternal mortality review process.

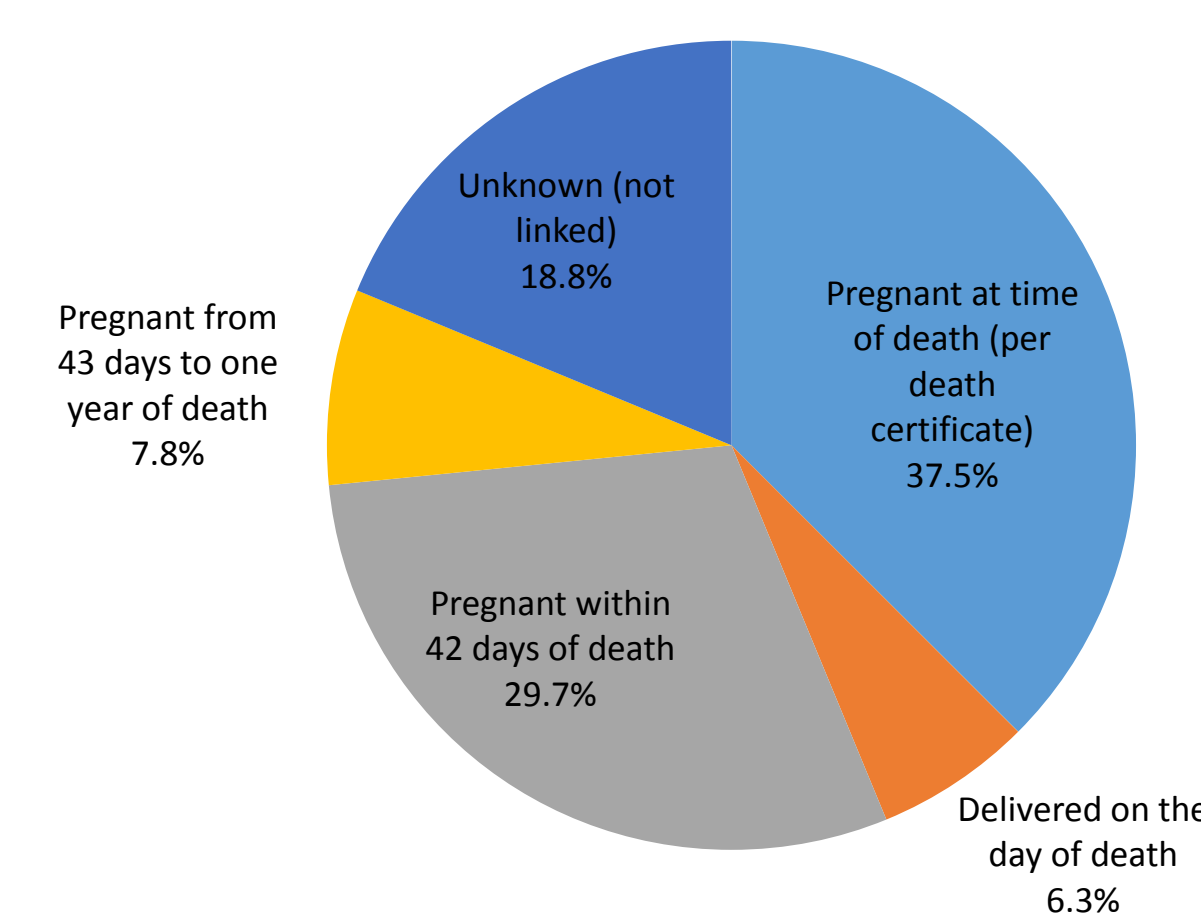
Methods

- South Carolina birth certificate and death certificate data were linked (where applicable) for potentially pregnancy-related deaths occurring from 2011-2015.
- The World Health Organization's definition of maternal deaths was used:
 - all deaths during pregnancy or within 42 days of delivery with an ICD-10 cause of death code including: O00 – O95, A34, O98, or O99
- It is important to note that this definition differs from the one that is being used by the South Carolina Maternal Mortality and Morbidity Review Committee.

Results



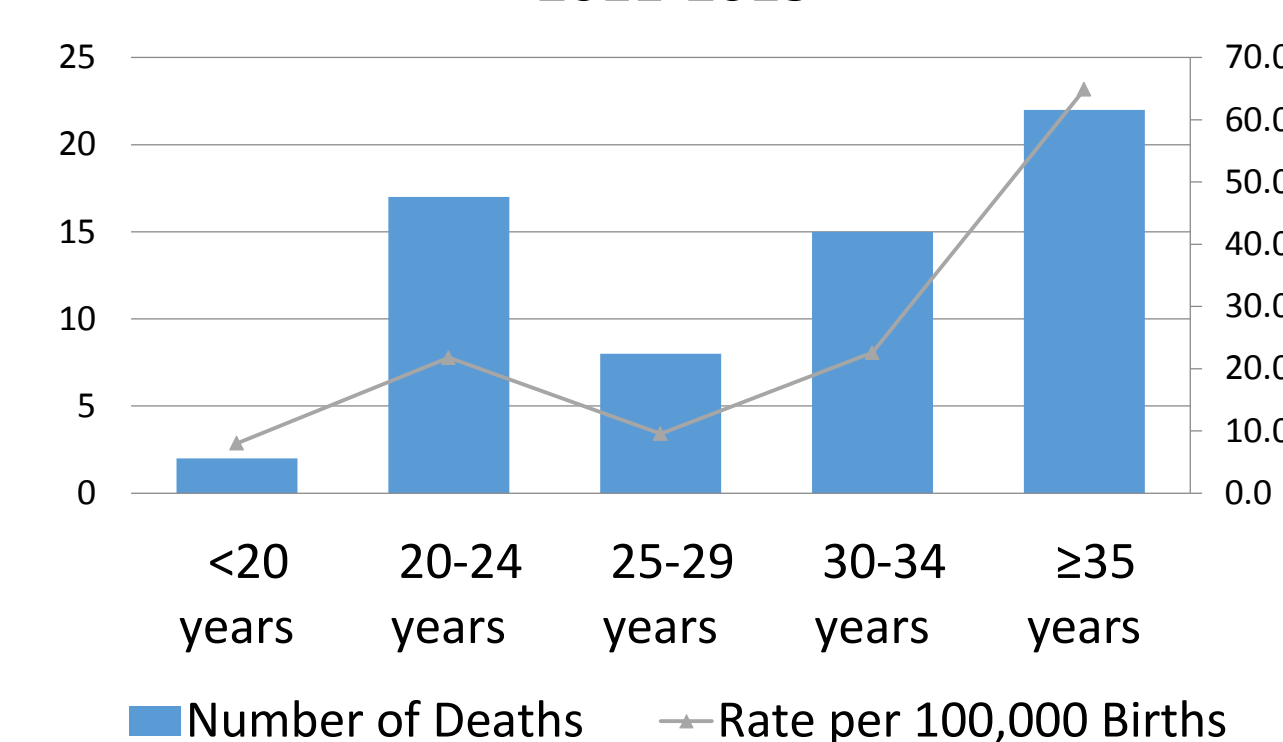
Number of pregnancy-related deaths by time relative to pregnancy, 2011-2015



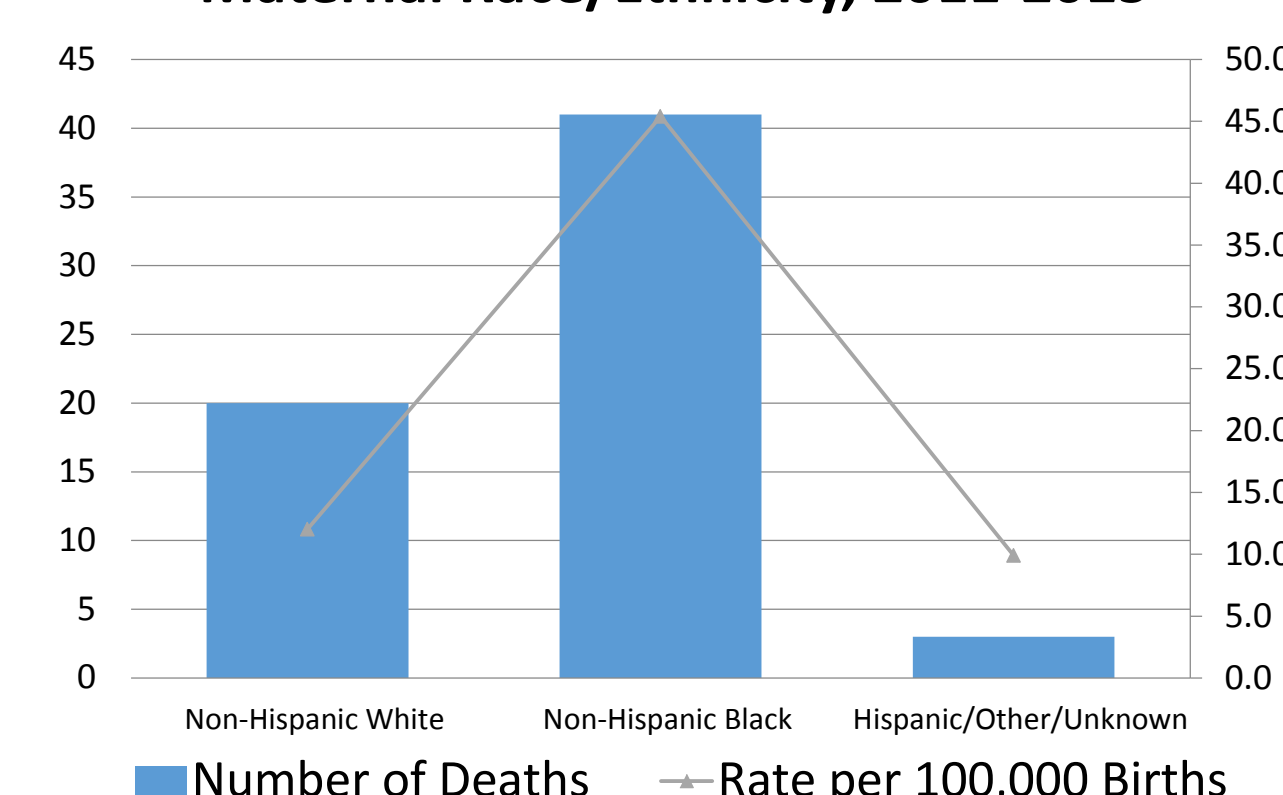
Number and percent of pregnancy related deaths by cause of death, 2011-2015

Cause of Death	Number of Pregnancy-Related Deaths	Percent
Ectopic pregnancy	4	6.3
Cardiovascular disease	12	18.8
Hypertensive disorders	10	15.6
Diseases of the cerebrovascular system	3	4.7
Medical Conditions complicating pregnancy	21	32.8
Complications of labor and delivery	8	12.5
Unspecified/unknown	6	9.4
TOTAL	64	

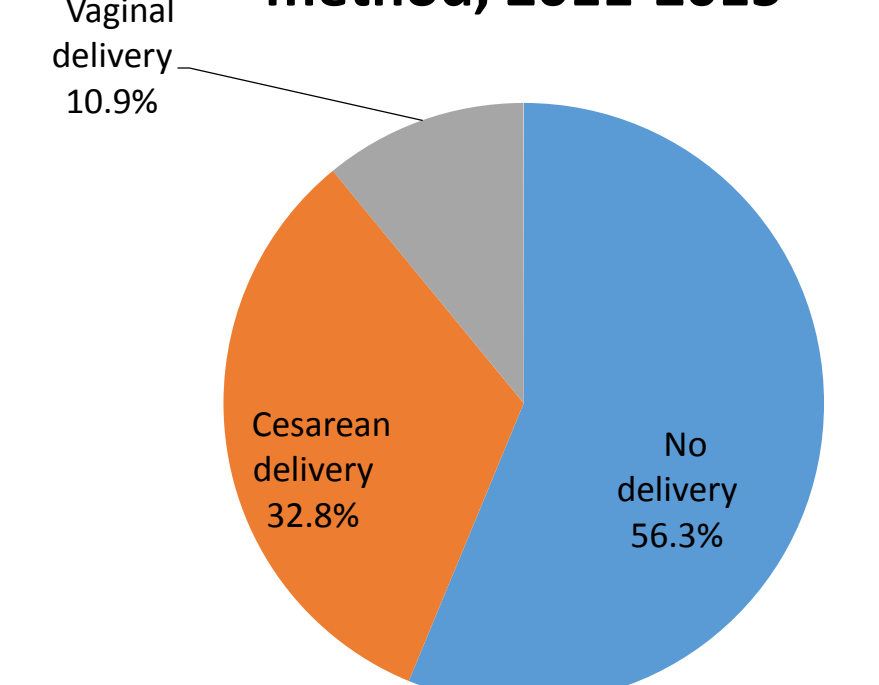
Pregnancy-Related Deaths by Maternal Age at Time of Death, 2011-2015



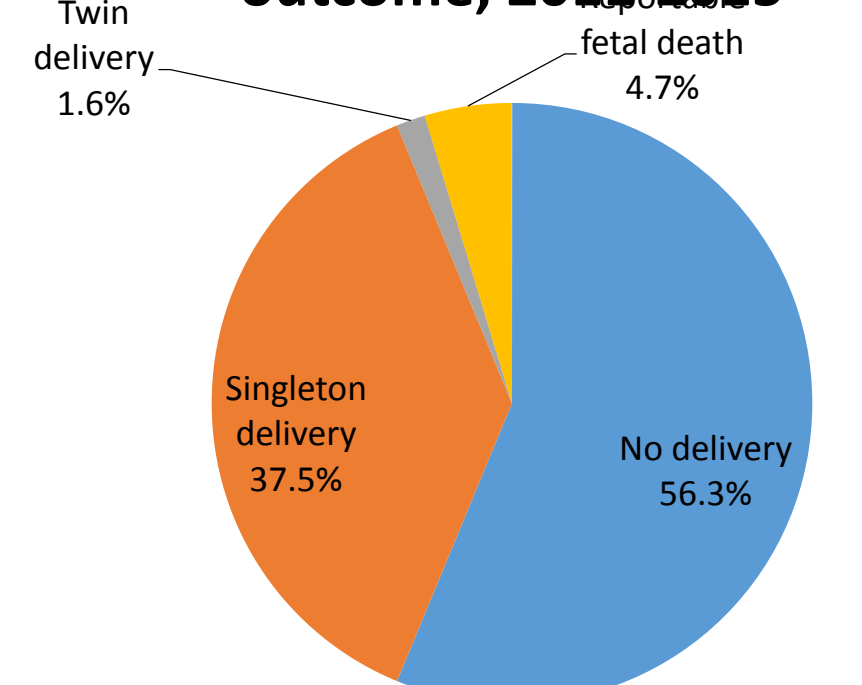
Pregnancy-Related Deaths by Maternal Race/Ethnicity, 2011-2015



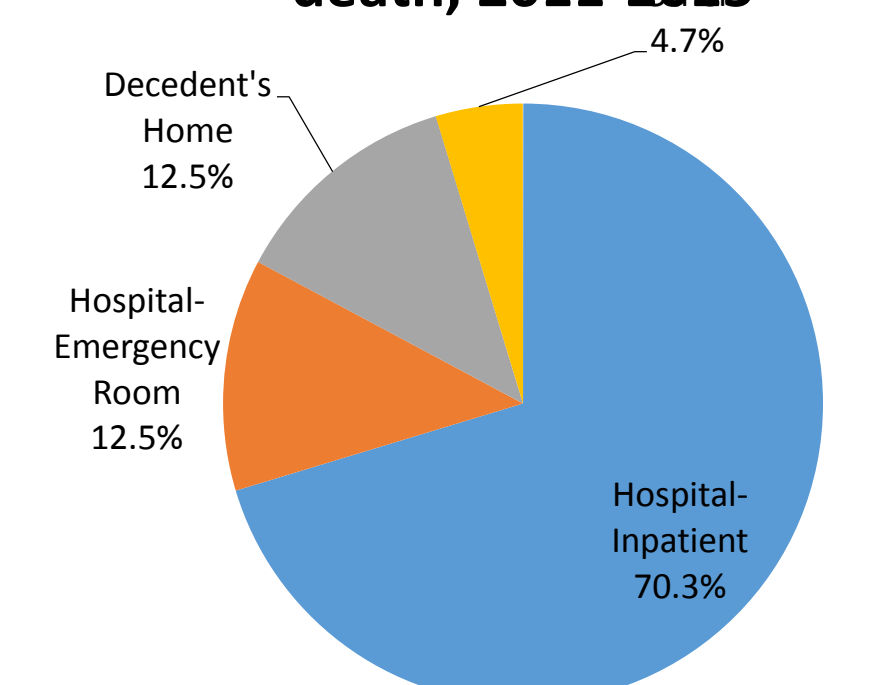
Percent of pregnancy related deaths by delivery method, 2011-2015



Percent of pregnancy related deaths by delivery outcome, 2011-2015



Percent of pregnancy related deaths by place of death, 2011-2015



Results continued

- There were a total of 64 maternal deaths meeting the World Health Organization's maternal mortality definition in South Carolina from 2011-2015.
- The rate of maternal mortality increased from 19.2 deaths per 100,000 live births in South Carolina in 2011 to 33.0 deaths per 100,000 live births in 2014 before dropping to 20.6 deaths per 100,000 live births in 2015.
- Of these 64 deaths, many (43.8%) occurred during pregnancy or on the day the infant was delivered.
- The rate was highest for women 35 years of age or older (64.9 deaths per 100,000 live births).
- Non-Hispanic Black women had a rate of maternal mortality that was 3.7 times greater than the rate among non-Hispanic White women (45.4 deaths per 100,000 live births compared to 12.0 deaths per 100,000 live births, respectively).
- While the majority of the women died in a hospital, 17.2% of the deaths occurred outside of a hospital.

Conclusion & future directions

- Maternal mortality continues to be a substantial public health concern in South Carolina as well as across the United States.
- Demographic disparities in maternal mortality exist in South Carolina, including a substantial racial disparity.
- The upcoming results of the South Carolina maternal mortality review process will be essential to improving our understanding of the causes of maternal deaths and the potential for preventing similar deaths from occurring in the future.

References

- MacDorman, M., Declercq, E., Carbral, H. & Morton, C. (2016). U.S. Maternal Mortality Trends. *Obstet Gynecol*, 128(3), 447-455.
- Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2014 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2014, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Sept 26, 2016 10:31:01 AM.