# Maternal Mortality in Utah

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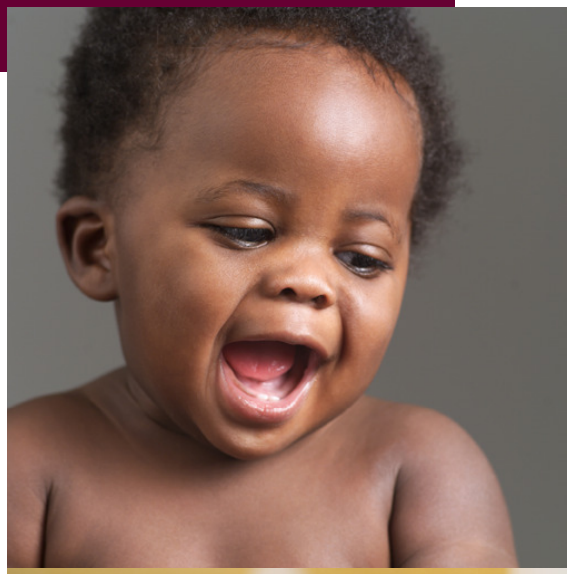

# Objectives

- Overview of Maternal Death Review process in Utah
- Review findings, descriptive statistics, qualitative data and committee recommendations
- New directions for improving maternal and infant pregnancy outcomes

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# Utah's Perinatal Mortality Review

- Process aimed at identifying and examining the factors that contribute to perinatal deaths through the systematic evaluation of individual cases.
- Review of maternal and infant deaths
- Began in 1995

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# Utah's Perinatal Mortality Review

- Administered by the Utah Department of Health's MCH Bureau
- Funded by Title V MCH Block grant
- Staffed by 1 FTE Certified Nurse Midwife and .25 FTE Clerical support
- Committee members donate time and expertise ("free" lunches)

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# Objectives of the Program

- To provide data on maternal and infant health to the perinatal mortality review committee
- To assist in identifying gaps in the health care system
- To provide a way for community experts to make recommendations that will improve the delivery of health care services for pregnant women and their infants

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# Perinatal Mortality Review Committee

- Members provide:
  - Analytical skills
  - Knowledge of public health issues
  - Community perspectives
  - Quality improvement expertise
  - Clinical expertise

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# Perinatal Mortality Review Committee

- Members include:
  - Perinatologists
  - Obstetricians
  - Pediatricians
  - Neonatologists
  - Certified Nurse Midwives
  - Quality Improvement professionals
  - Public Health professionals

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# Confidentiality

- State statute provides:
  - Legal mechanism to get needed data
  - Protect data and information collected for case reviews
  - Establishes rules to assure confidentiality and protect those involved in the process

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# Dissemination

- Committee recommendations are disseminated through:
  - Publications
  - Presentations
  - Program interventions
  - Member partnerships and collaborations

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# Definitions

- Maternal death: (WHO) death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or it management, but not from accidental or incidental causes

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# Definitions

- Pregnancy-associated death: (ACOG/CDC) death of a woman while pregnant or within 1 year of termination of pregnancy, irrespective of cause

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# Definitions

- Pregnancy-related death: (ACOG/CDC) death of a woman while pregnant or within 1 year of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by her pregnancy or its management, but not from accidental or incidental causes.

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# Case Ascertainment

- Matching birth or fetal death record within 365 days prior to woman's death
- Death certificate checkbox, "yes" to pregnancy within past year
- Screening of all pregnancy-associated cases by PMR Coordinator and perinatologist
- Identification of pregnancy-related deaths for thorough review

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# Data Collection

- Vital records data
- Medical record abstraction
- Autopsy reports
- Provider records
- Police records

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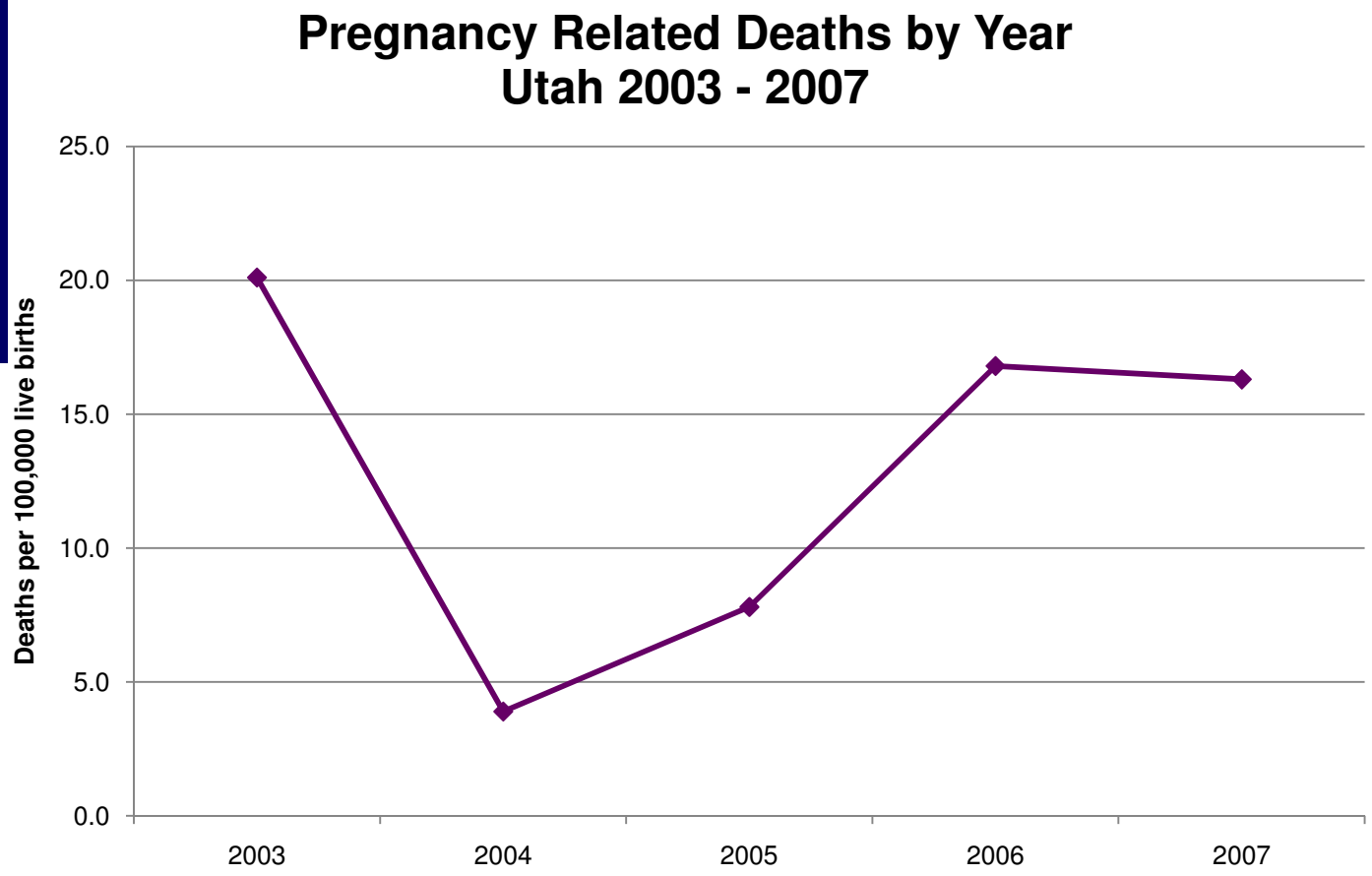
# Trend

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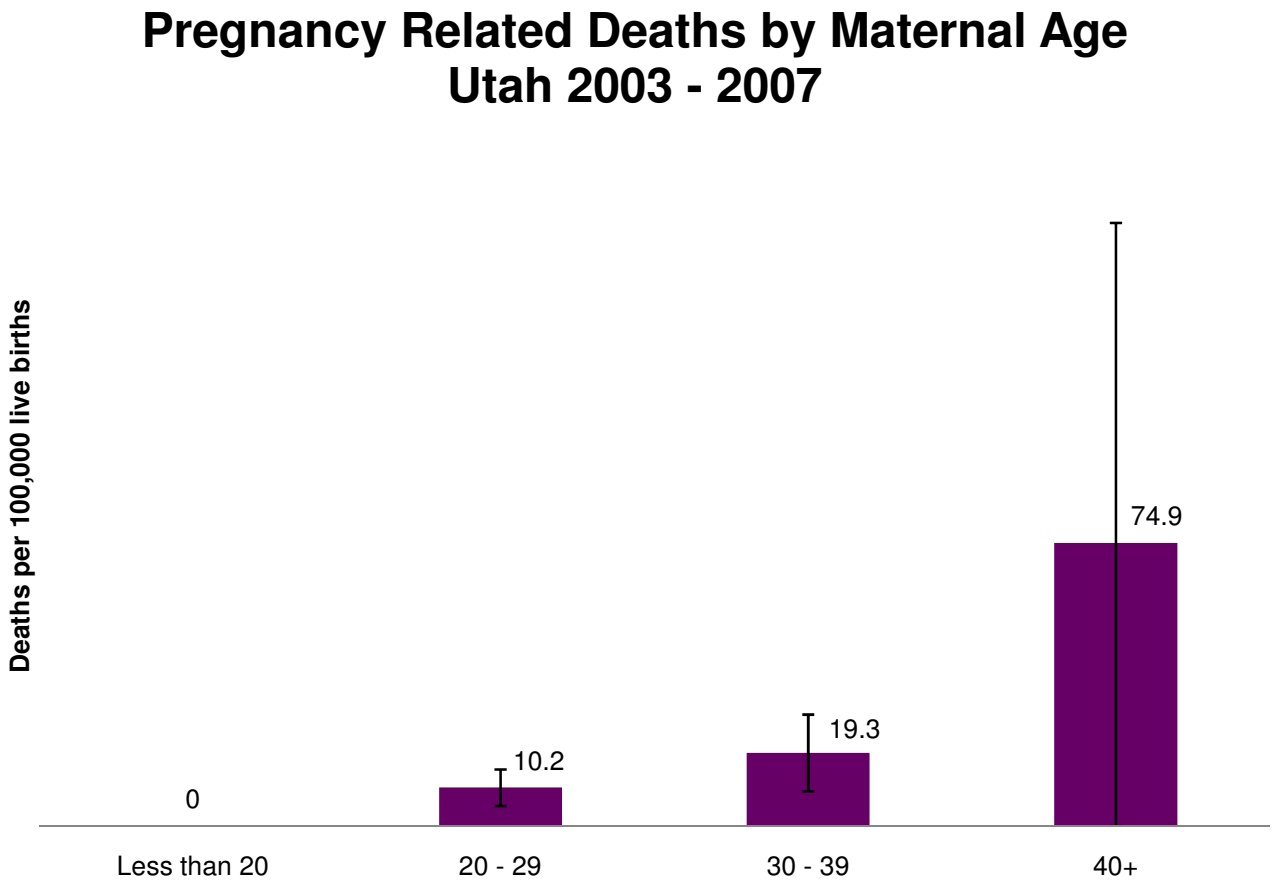
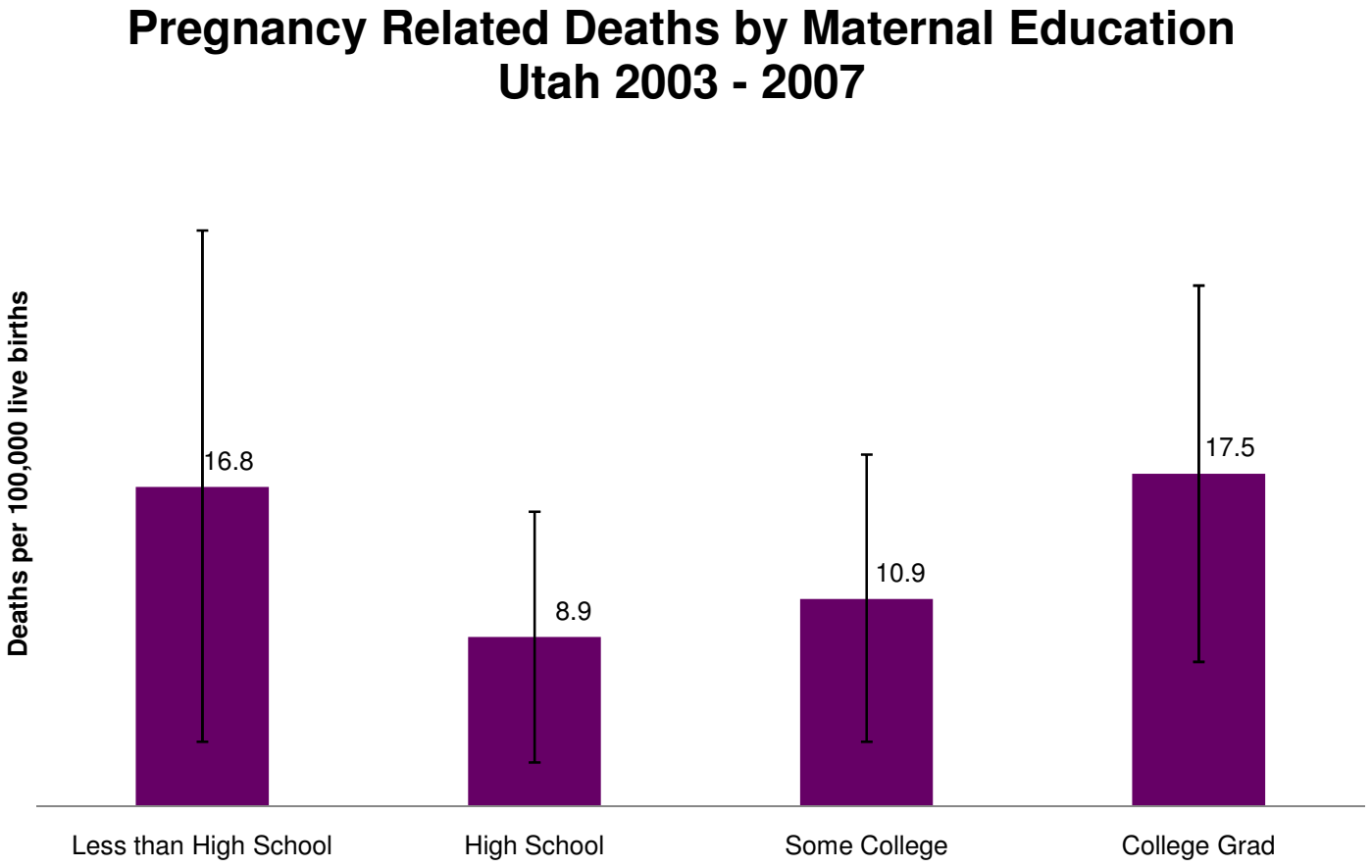
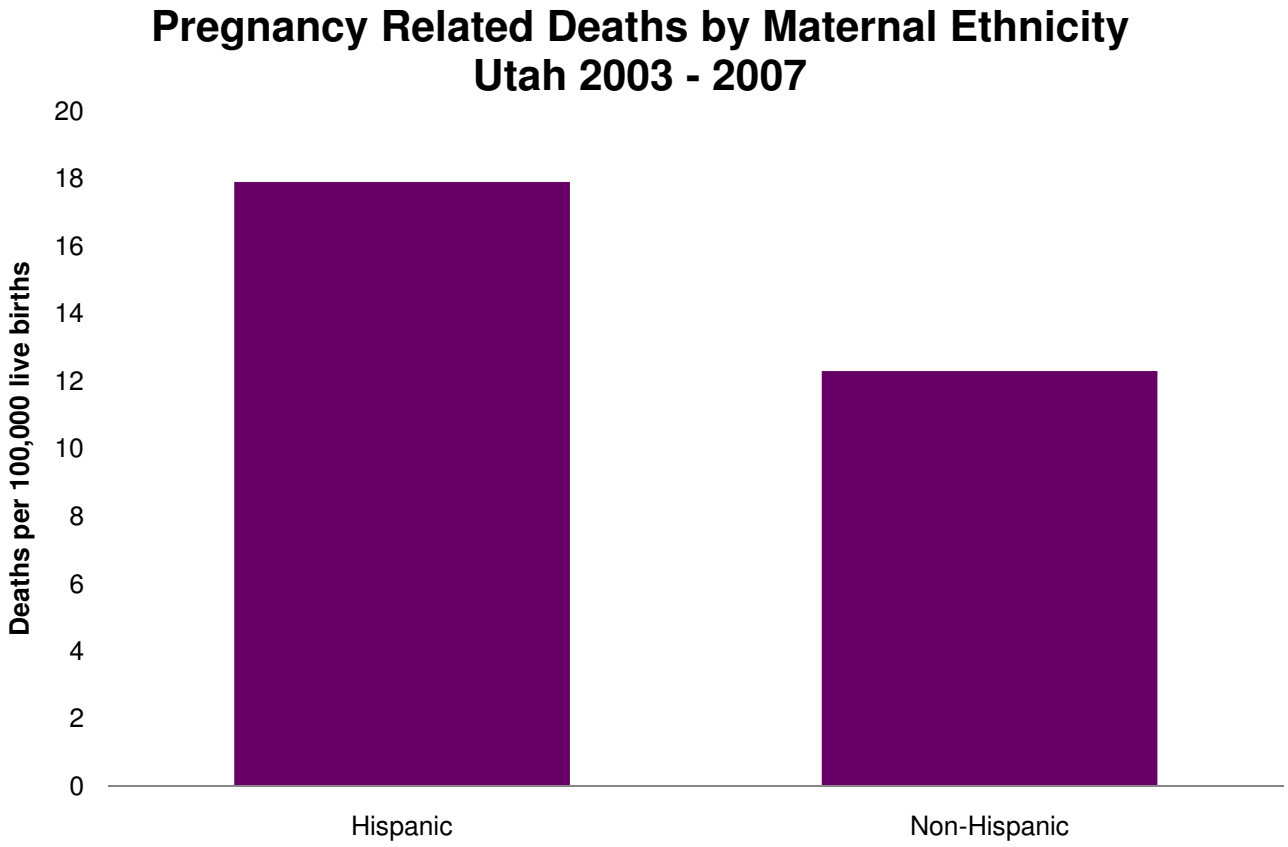
# Demographics: Age



# Demographics: Education



# Demographics: Ethnicity

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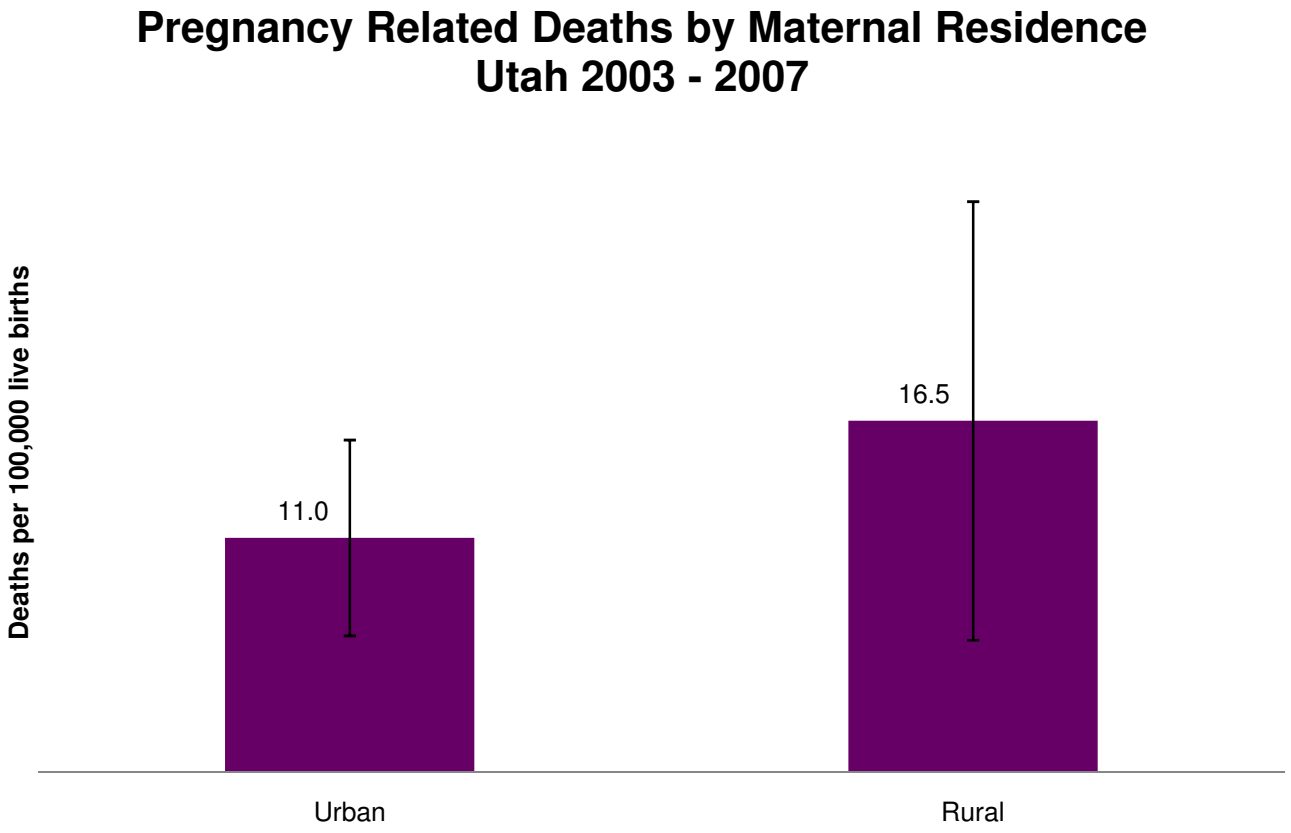
# Demographics: County of residence

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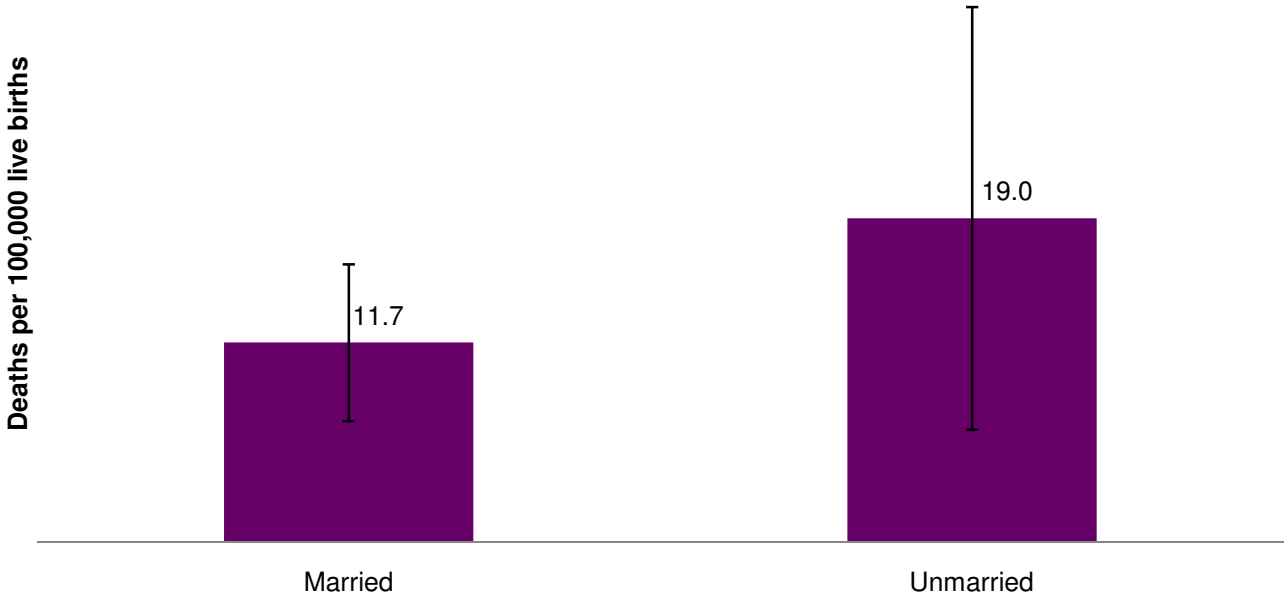
# Demographics: Marital Status

**Pregnancy Related Deaths by Maternal Marital Status**
**Utah 2003 - 20007**

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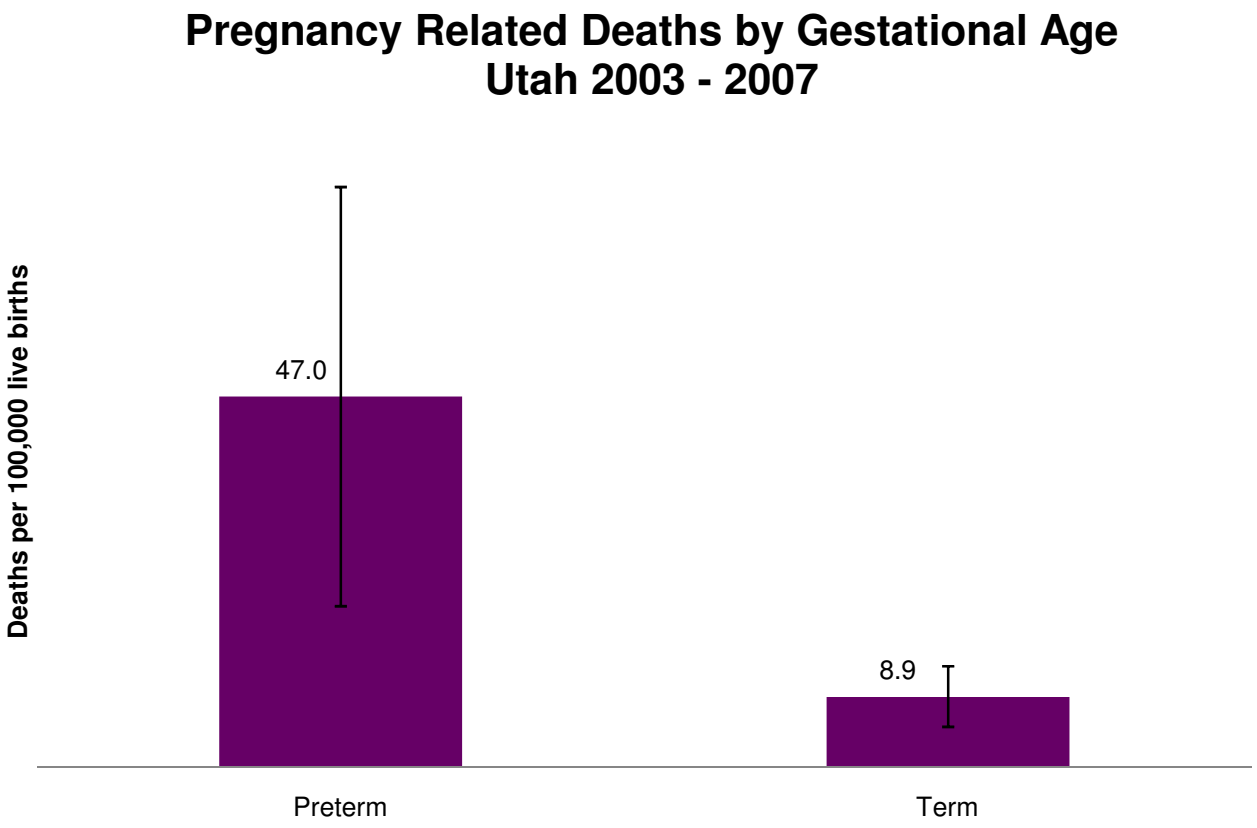
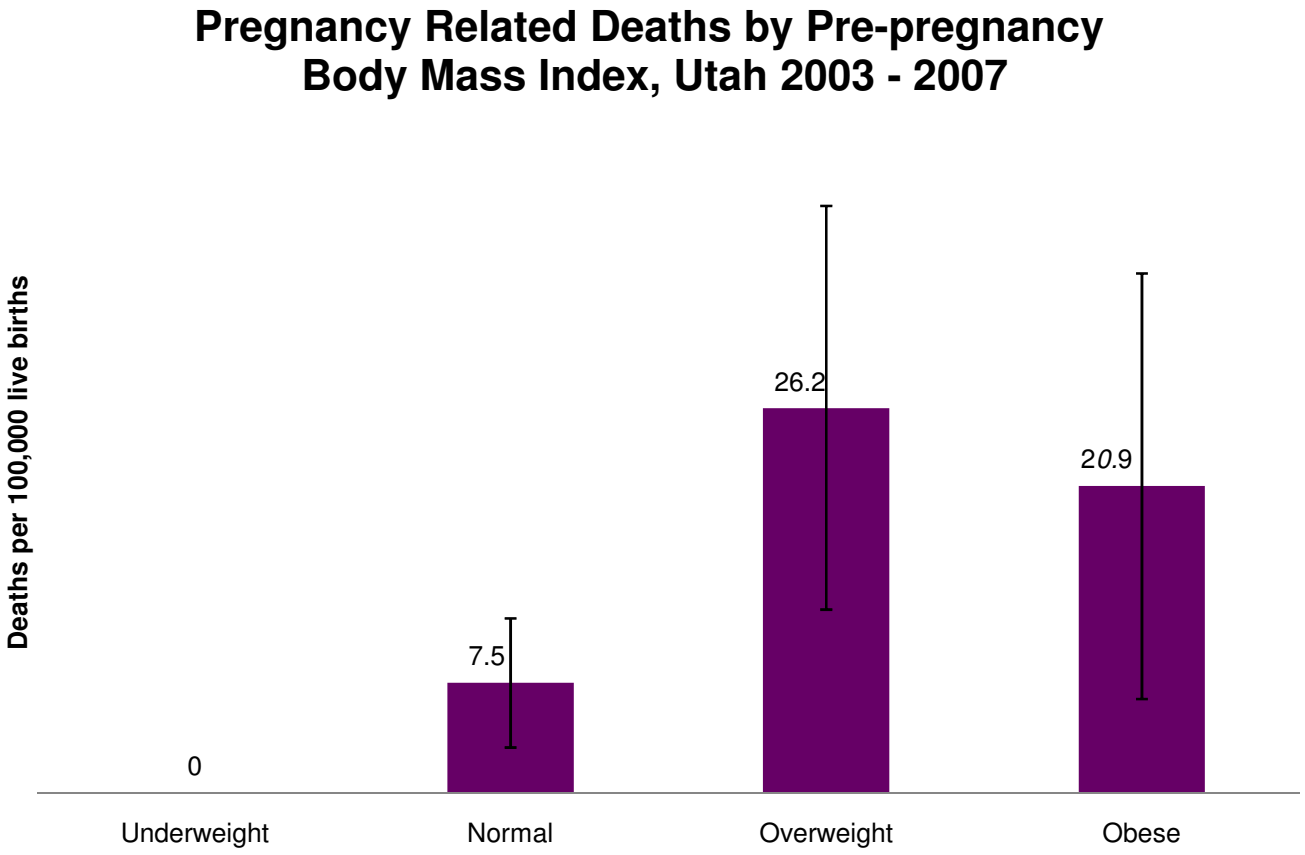
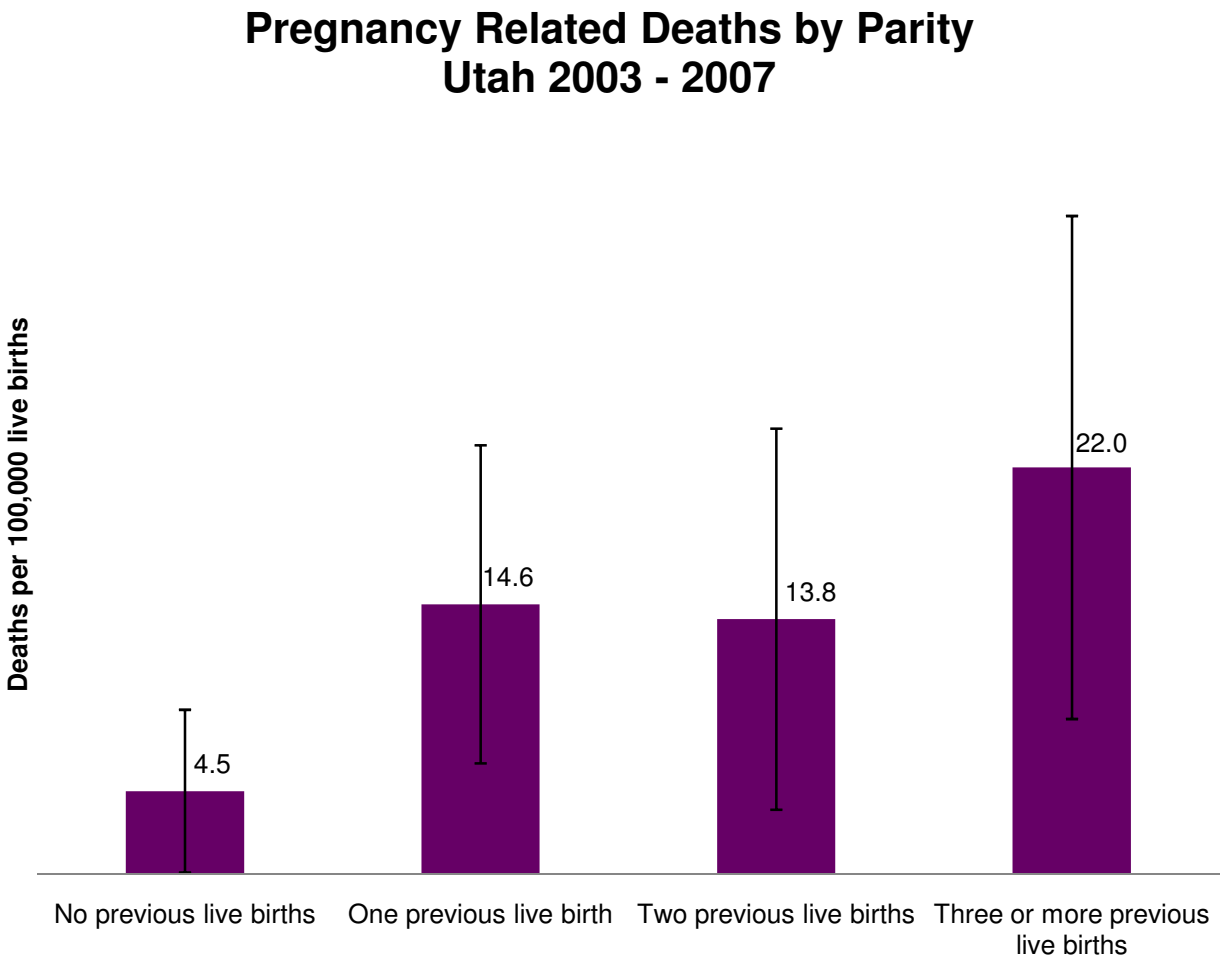
# Clinical Characteristics: Gestational Age



# Clinical Characteristics: BMI



# Clinical Characteristics: Parity



# Causes of Death

| Cause of Death | Number of Deaths |
|---|---|
| Hemorrhage | 6 |
| Sepsis | 4 |
| Pulmonary Embolism | 4 |
| Amniotic Fluid Embolism | 4 |
| Cardiomyopathy | 4 |
| Endo/pericarditis | 2 |
| Intracranial hemorrhage | 2 |
| Drug overdose | 2 |
| Suicide (postpartum depression) | 1 |
| Medical causes | 3 |

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# Committee Recommendations

- Provider Education:
  - ER physicians on postpartum pre-eclampsia and need to consult OB
  - Generalists on maternal medical conditions complicating pregnancies
  - Risks of anesthesia in patients with recent history of methamphetamine use
  - Importance of screening pregnant women for depression and substance use

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# Committee Recommendations

- Communication issues
  - Improved communication between providers/facilities when care shared between generalists and specialists
  - Cultural hierarchy between physicians and nurses creating barriers to communication

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# Committee Recommendations

- Public Education:
  - Importance of adhering to physician prescribed/recommended medication use during pregnancy
  - Importance of being at optimal weight prior to pregnancy
  - Personal record of medical history conveyed to all care providers

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# Committee Recommendations

- Miscellaneous
  - Standing OB transfusion protocols at every healthcare facility
  - Perinatal consultation in high risk OB patients (age, chronic disease, pregnancy complications)
  - Referral to substance abuse and mental health treatment during prenatal period

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# New Directions

**Patient Safety**:

- 1999 IOM report To Err is Human
- 2001 IOM report Crossing the Quality Chasm
- Launched national attention upon improving the quality of the nation's healthcare

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# Utah Patient Safety Initiative: Background

- 2001 UDOH launched PSI
- State regulations require reporting of Sentinel Events and Adverse Drug Reactions
- Patient Safety Steering Committee and two “users groups”

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# Definitions

- **Sentinel event**: one that resulted in an unanticipated death or major permanent loss of function, not related to the natural course of the patient's illness or underlying condition or is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof.
- **Root Cause Analysis**: process for identifying the basic or causal factor(s) that underlie variation in performance, resulting in the occurrence or possible occurrence of a patient safety sentinel event.

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# Sentinel Events

- PMR Program collaborates with PSI through identification of “sentinel events”
- System level opportunities to prevent future morbidity and mortality

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# New Directions

## Statewide Perinatal Quality Initiative

- Exploring a collaborative effort between Hospitals, Department of Health, Provider Organizations
- Prevent catastrophic events
- Systems approach to improving perinatal outcomes

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# PQI AIMS

- Engage experts to prioritize measures
- Select set of clinical indicators (e.g. NQF)
- Establish Perinatal “Users Group”
- To enhance case review PMR process by adding QI process

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# New Directions

- Statewide Perinatal Quality Initiative (cont.)
  - ✓ Survey hospitals to determine current practice and interest
  - ✓ Prioritize quality indicators
  - ✓ Seek funding

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# Questions?

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