Reduction of Peripartum Disparities Bundle

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Overview

• Background
• Quality of Care Framework
• Disparities Bundle Development
• Bundle Themes
• Progress
Disparities in Maternal Mortality

- Minorities represent half of all US births
- Racial/ethnic minorities suffer higher maternal mortality rates
- Blacks 3 to 4 times more likely to die than whites – largest disparity among population perinatal health measures
- Native Americans, Asians, some Latinas also have elevated rates

United States Pregnancy-related Mortality by Race, Ethnicity, Nativity 2000-2006

Creanga, Obstet Gynecol 2012
Disparities More Pronounced in Some Cities

Pregnancy-related mortality in NYC 2006-2010

- Blacks 12 times more likely to die
  - Widening of gap since 2001-2005
  - Increased gap driven by 45% decreased mortality among whites

- Asian/Pacific Islanders 4x as likely to die
- Latinas 3x as likely to die

NYC DOHMH; 2006-2010
Severe Maternal Morbidity

- For every maternal death, over 100 women experience severe obstetric morbidity
- Affects 60,000 women annually in US
- Rates are rising: nearly doubled over last decade
- Racial/ethnic disparities exist

Quality and Disparities in Severe Morbidity

Race/ethnicity
- Maternal/family SES (education & poverty)
- Maternal health status, complications
- Antenatal care, other health & social services
- Knowledge, beliefs & values, perception of risk
- Social and environmental context

Hospital Factors: structural characteristics, organizational factors, clinical processes

Quality of delivery and hospital care

Potential Maternal Morbidity

Maternal Morbidity & Mortality
Quality and Disparities in Severe Morbidity

Race/ethnicity

Maternal/family SES (education & poverty)

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Potential Maternal Morbidity

Maternal Morbidity & Mortality
Hospital Quality

• Nearly one-half of severe events / maternal deaths preventable through patient, provider, and system factors

• Studies suggest hospital quality important contributing factor

• Growing evidence that use of safety protocols, checklists improve outcomes

Quality of Care and Disparities

• Site of care -- mechanism for disparities
• Minorities receive care from concentrated set of hospitals
• Minority-serving hospitals associated with:
  – Higher AMI mortality; lower use of guidelines
  – Lower performance on OB delivery indicators
  – Higher severe maternal morbidity rates for blacks and whites

Barnato, Med Care, 2005; Bach, NEJM, 2004; Creanga AJOG 2015, Howell AJOG 2016
Risk-adjusted Severe Maternal Morbidity Rates for Black and White Deliveries at Black-serving Hospitals

Severe Maternal Morbidity per 1000 deliveries

Low: 12.3 (White), 16.9 (Black)
Medium: 15.6 (White), 19.0 (Black)
High: 19.2 (White), 20.5 (Black)

Howell, AJOG 2016
Alliance for Innovation on Maternal Health: Focus on Disparities

• One of the first professional bodies to address disparities
• Unique perspective - addressing disparities under a patient safety umbrella
• Raises awareness among health systems, departments of health, hospitals, and clinicians who care for pregnant and postpartum women
Perinatal Disparities Working Group

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Guiding Principles

• Consider racial/ethnic disparities broadly – not limited to black versus white
• Acknowledge complex causes – genetics, social determinants, behaviors, quality
• Focus on quality of care, modifiable factor
• Consider continuum of care
• Important attributes of our bundle
  – Actionable - Feasible
  – Evidence-based - Impactful
Starting Point

• Tailoring existing bundles
• Create new clinical bundle that specifically targets high risks minority women (e.g. cardiac disease)
• Target communication / shared decision making
• Disparities dashboard
Bundle Development

• Review of literature
  – Disparities frameworks
  – Drivers of disparities and relative contributions
  – Effective interventions to reduce disparities
  – Examples from other areas of medicine
  – Shared-decision making
  – Patient provider communication
  – Implicit bias
Contributors to health and health care disparities

Health system factors
- Health services organization, financing, delivery
- Health care organizational culture, QI

Patient-level factors
- Beliefs and preferences
- Race/ethnicity, culture
- Education and resources
- Biology

Clinical encounter
- Provider communication
- Cultural competence

Provider factors
- Knowledge and attitudes
- Competing demands
- Implicit/explicit biases

Adapted from Kilbourne et al, AJPH 2006
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Structural factors
- Poverty/wealth
- Unemployment
- Stability of housing
- Food security
- Racism

Adapted from Kilbourne et al, AJPH 2006
Disparities Bundle Framework

- Cultural competent communication
- Literacy
- Language
- Fragmentation
- Bias
- Co-morbidity
- Inter-institutional differences

- Education
- Poverty
- Institutional racism
- Environment
Disparities Bundle Themes

• Shared decision-making
• Implicit bias
• Continuity of care
• Patient education
• Care fragmentation
• Disparity dashboard
• Inter-hospital differences
Using Existing Bundle Framework

• Readiness

• *Every health system*

• Establish systems to accurately record self-identified race, ethnicity, and primary language
Using Existing Bundle Framework

• Recognition
• Every patient, family, and staff member
• Establish discharge navigation and coordination systems to ensure that women have appropriate follow-up care and understand when it is necessary to return to the clinic or hospital
Using Existing Bundle Framework

• Response
• *Every clinical encounter*
• Encourage mechanism for reporting of care that is not equitable and patient-centered and respond accordingly
Using Existing Bundle Framework

- Reporting & Systems Learning
- *Every clinical unit*
- Develop disparities dashboard that monitors process and outcome metrics and stratify these metrics by race and ethnicity
Next Steps

- Finalize bundle
- Collect resources
- Present bundle to the Council
THANK YOU
What We Did

- Used national data from 2010 and 2011
- Identified severe maternal morbidity (SMM)
- Ranked hospitals by proportion of black deliveries:
  - High (top 5%)
  - Medium (5-25%)
  - Low (remainder)
- Analyzed risks of SMM for blacks and whites by hospital black-serving status using logistic regression adjusting for patient comorbidities, hospital factors, and patient clustering
What We Found

• One quarter of all US hospitals provide care for 75% of all black deliveries

• Higher rates of severe maternal morbidity among blacks partially due to:
  – Elevated rates of comorbidities
  – Differences in site of care

• Black-serving hospitals have higher morbidity rates for both black and white women

Howell AJOG 2016