Maternal Mortality, Unintended Pregnancy, and Preconception Health

2017 NYSPA Perinatal Partnership Conference
Albany, NY

June 8, 2017
Presentation Overview

- Maternal Mortality
- Preconception care
- Update NYS’ Perinatal Regionalization System
The NYS Partnership for Maternal Health (PMH)

Multi-stakeholders came together to address the increasing rates of maternal mortality:

- New York State Department of Health
- American Congress of Obstetricians and Gynecologists District II,
- New York City Department of Health and Mental Hygiene
- Healthcare Association of NYS
- Greater NY Hospital Association
- New York Academy of Medicine

Goal:

- Promote equity in maternal health outcomes within at-risk populations in NYS to reduce:
  - ethnic and economic disparities
  - preventable maternal mortality and morbidity
Trends in Maternal Mortality as Reported in NYS Vital Records*

*Causes of death from death records A34, O00-O95, O98-O99.
Trends in Maternal Mortality as Reported in NYS Vital Records*

*Causes of death from death records A34, O00-O95, O98-O99.
Maternal Mortality in NYS, 2012-2013

Identified 216 women of reproductive age who died within a year of the end of a pregnancy

- 99 deaths linked to a live birth record
- 117 deaths linked to hospital records with an indication of pregnancy

Currently, over 94% of reviews completed

- 153 pregnancy-associated deaths
  - 59 pregnancy-related (49 maternal deaths: within 42 days of end of pregnancy)
  - 14 unknown if related
  - 80 not related
- 45 ‘false’ pregnancies
  - 29 had obstetric causes of death on death record
Pregnancy-related Maternal Mortality (n=59)
2012-2013 Preliminary Data

88% of pregnancy-related deaths had prenatally identified risk factors

<table>
<thead>
<tr>
<th>Prenatally identified risk factors*</th>
<th>88%</th>
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<tbody>
<tr>
<td>Hypertension</td>
<td>15% (n=9)</td>
</tr>
<tr>
<td>Anemia</td>
<td>12% (n=7)</td>
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<tr>
<td>Asthma</td>
<td>12% (n=7)</td>
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<tr>
<td>Psychiatric disorders</td>
<td>12% (n=7)</td>
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<tr>
<td>Cardiac problems</td>
<td>12% (n=7)</td>
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<tr>
<td>Uterine abnormality or incompetent cervix</td>
<td>10% (n=6)</td>
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<table>
<thead>
<tr>
<th>Pre-pregnancy weight status</th>
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<tbody>
<tr>
<td>Obesity, BMI&gt;=30</td>
<td>34% (n=20)</td>
</tr>
<tr>
<td>Overweight, BMI between 25 and 30</td>
<td>12% (n=7)</td>
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<tr>
<td>Smoking prior to pregnancy</td>
<td>12%</td>
</tr>
<tr>
<td>Alcohol use prior to pregnancy</td>
<td>12%</td>
</tr>
<tr>
<td>Drug use prior to pregnancy</td>
<td>14%</td>
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*Factors identified in less than 6 women not presented.
Maternal Mortality in New York State

Preliminary Data from 2012-2013 review of pregnancy-related deaths, n=59
Maternal Mortality Rate by Age

- MMR 2012-2013 Pregnancy-related, N=59
- Live Births 2012, N=244,441

Mother's age

Percent

<20  20-24  25-29  30-34  35-39  40+

Department of Health
Maternal Mortality by Race

- MMR 2012-2013, N=59
- Live Births 2012, N=244,441

Race

- Asian
- Black
- Other
- White
- Unknown

Percent
Process of Maternal Mortality Review in New York State

Add Committee Review of Cases to Current Method
- NYSDOH and ACOG working collaboratively to develop process

Complete Assessment of:
- Causes of death
- Factors leading to death
- Preventability
- Opportunities for intervention

Translate Trends and Issues into Action
- Collaborate to develop Issue Briefs, Grand Rounds
- Quality Improvement project
- Issue maternal mortality report
Maternal Mortality: Understanding Racial Disparities

Potential explanations:
- Higher rates of chronic conditions
- Greater socioeconomic risk factors
- Quality of care
- Higher rate of unintended pregnancy
- Impact of racial discrimination

Bottom Line: We need to address BOTH
- Overall health and well-being of women across the reproductive life course
- Quality of care provided to women (systems improvements)
Multi-prong Approach to Reduce Maternal Mortality

- Preconception Care
- Disparities (inequities)
- Unintended Pregnancy
Pregnancy Intendedness and Preconception Care

• **Approximately 45% of births in nationally are unintended** (mistimed, unplanned or unwanted at the time of conception)

• Unintended pregnancies minimize the ability to prepare for a healthy pregnancy and have proactive conversations with health care providers

• It is important to start a **universal focus on the importance of preconception care** to begin to reduce maternal mortality and morbidity

• Preconception care is important for all, but crucial for those with chronic conditions

• All health care providers serving women of reproductive age play an important role

• **Every time a women interacts with a health care provider is an opportunity** to discuss pregnancy intendedness and preconception health
Preconception Care

- Identifies risks to reduce or minimize potential impact on pregnancy
- Maximizes maternal health
- Intervenes to achieve optimal outcomes
- Promotes health and provides an opportunity for health education
The Need for Preconception Care

1980s: Focus was on early engagement in prenatal care

1980s: Increases in Medicaid eligibility and enrollment improved prenatal care utilization

Between 1985 and 2015: 1st trimester prenatal care initiation increased from 61.5% to 77%, though disparities persist

Today: Maternal mortality rates persist

Today: Improvements in prenatal care have not resulted in steady improvements in birth outcomes

Today: Rates of infant mortality have decreased since the 1980s, but progress has stalled and significant disparities remain
Unintended Pregnancy, 2010 National data

• **55% of pregnancies in NY were unintended.** National average 45%
• National average of Adolescent unintended pregnancies was 82% (28% for 35-39 years old and 48% for 40 years old and over)
• Unintended pregnancies higher: <high school education, income <100% of FPL, Black non-Hispanic, and never married/not cohabiting
• 5% of unintended pregnancies are attributed to 2/3 of women who use contraceptives consistently
• **95% of unintended pregnancies are attributable to 1/3 of women who do not use contraceptives or who use them inconsistently**
Live Births Resulting from Unintended Pregnancy

Bar chart showing the percent of live births resulting from unintended pregnancy in 2010, categorized by Medicaid, race, and Hispanic status.
Health Inequities Related to Preterm Delivery

Preterm Delivery by Race/Ethnicity: New York, 2012-2014 Average
Why Women’s Health Before Pregnancy Matters

Better Health Before Pregnancy Means Better Birth Outcomes

Many Pregnancies are Unplanned

Early Prenatal Care is Too Late
An Important Question: “Would you like to become pregnant this year?”

- Emphasize need for preconception care
  - Emphasize the need for preconception care of women with chronic conditions with all health care providers

- Identify conditions, risks, and behaviors
  - Identify and modify certain medical conditions, personal behaviors, psychosocial risks, and environmental exposures before conception through clinical interventions

- Every Woman, Every Time.
  - Discuss reproductive life plan
  - Prescribe contraception, if appropriate
  - Address risk factors and chronic conditions that could compromise maternal health
Preconception Care and Maternal Mortality: Quality Pre- and Interconception Care

- Increase healthy birth outcomes and early identification and treatment of health conditions among infants
- Reduce risk of maternal and infant mortality and pregnancy-related complications
Elements of Preconception Care

- Risk assessment
- Health promotion
- Medical and psychosocial interventions

Focus on elements which must be done before or shortly after conception to be effective.
Conditions Addressed by Preconception Care

- Those that need time to correct prior to conception
- Interventions not usually undertaken in pregnancy
- Interventions considered only because a pregnancy is planned
- Conditions that might change the choice or timing to conceive
- Conditions that would require early post-conception prenatal care
Before Pregnancy is the Optimal Time to Address:

- Family Planning
- Chronic Diseases
- Healthy Weight
- Smoking Cessation
- Treating Substance Use/Abuse
- Immunizations
Examples of Components of Preconception Care

**Family Planning**
- Reproductive Life Planning
- Birth Spacing
- Contraception

**Social History**
- Domestic abuse and violence
- Substance use
- Assessment of socioeconomic, educational, and cultural context
- Environmental and occupational exposures
- Social Support

**Nutritional History**
- Adequate mineral/vitamin intake (Folic acid, Calcium)
- Healthy weight

**Behavioral Health**
- Depression

**Medical History**
- Chronic diseases (Diabetes, Asthma, Hypertension, CVD, Autoimmune, Kidney, Thyroid)
- Genetic history (maternal and paternal)
- Medical, surgical, pulmonary and neurologic history

**Infectious Disease History**
- Immunity and immunization status
- Risk factors for STDs

**Medications**
- Prescription and Over-the-counter

**Reproductive History**
- Obstetric history (Preterm births, fetal loss)
- Gynecologic history (Uterine abnormalities)
Areas of Overlap in Routine Care and Preconception Considerations

- Nutritional status
- Infectious diseases and immunization status
- Substance use
- Chronic disease profile
- Medication use and needs
- Reproductive history
- Contraceptive needs and desires
When Should Preconception Care be Offered?

- As part of routine health maintenance care
- At a defined preconception visit
- For women with chronic illness
- At one visit vs. several visits
- Any time a woman interacts with a health care provider
Perinatal Regionalization

A comprehensive, coordinated geographically structured system of care organized around a series of Regional Perinatal Centers (RPCs), each supporting a group of affiliate hospitals by providing:

- Clinical Expertise
- Education
- Quality Improvement
To ensure women and their babies will have ready access to the services they need through:

| Ensure access to an expert health care team | Maximizing resources of the various facilities across the state – centralizes technology | Ongoing quality improvement to better ensure quality services across all levels of perinatal care |
Levels of Care in Perinatal System

- Birthing Centers
- Level I: basic care for women and newborns & no NICU services
- Level II: care for moderately complicated women and newborns
- Level III: care to high risk women and newborns
- Regional Perinatal Center: critical role
June 8, 2017

Role of the Regional Perinatal Center

- Care for a concentration of high-risk patients
- Reduce duplication of services within their region
- Maintain expertise to *consistently* provide the best quality care to the highest risk patients

Ensure quality of care provided throughout affiliative region through:

- 24-hour consultation
- transport coordination
- outreach and education
- onsite quality of care visits
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Re-designation Process

- Review and update perinatal hospital standards with increased emphasis on maternal health
- Convene expert workgroup to assist with review and to finalize standards
- Produce recommendations for revisions: 10 NYCRR Section 405.21 Perinatal Services and Part 721 Perinatal Regionalization
Re-designation Process

Webinar for hospitals on revised criteria and process

Electronic survey of all birthing hospitals related to new standards

Clinical review of surveys for compliance

Multidisciplinary teams will conduct onsite reviews of:

- All RPCs and Level III perinatal hospitals
- All hospitals requesting higher level designation
- 20% of Level II and I perinatal hospitals
- Birthing Centers- Hospital and Licensed Midwife administered

Final Report to DOH with recommendations and approval
Questions & Discussion