MYTH AND REALITY IN CURRENT EFFORTS TO ADDRESS MATERNAL MORTALITY IN THE U.S.

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www.birthbythenumbers.org

TAY GAVIN ERICKSON
LECTURE SERIES 2019
University of Massachusetts
Amherst, MA
December 5, 2019
I don’t have time to read the New York Times.

Herbert Simon
Nobel Prize in Economics
I don’t have time to read the New York Times.

Herbert Simon, 1971
Nobel Prize in Economics, 1978
Died in 2001
What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention, and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.

### Some Journals Related to Maternal & Infant Health

<table>
<thead>
<tr>
<th>Journal</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Reproduction Update</td>
<td>Journal of Reproductive Immunology</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>Maternal and Child Health Journal</td>
</tr>
<tr>
<td>Gynecologic Oncology</td>
<td>Acta Obstetrica et Gynecologica Scandinavica</td>
</tr>
<tr>
<td>Human Reproduction</td>
<td>Clinics in Perinatology</td>
</tr>
<tr>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Journal of Perinatology</td>
</tr>
<tr>
<td>Fertility and Sterility</td>
<td>Seminars in Perinatology</td>
</tr>
<tr>
<td>BJOB</td>
<td>Best Practice and Research in Clinical OBGYN</td>
</tr>
<tr>
<td>Perspectives on Sexual and Reproductive Health</td>
<td>Obstetrical and Gynecological Survey</td>
</tr>
<tr>
<td>Fetal Diagnosis and Therapy</td>
<td>Maturitas</td>
</tr>
<tr>
<td>Maternal and Child Nutrition</td>
<td>Journal of Minimally Invasive Gynecology</td>
</tr>
<tr>
<td>Ultrasound in Obstetrics and Gynecology</td>
<td>Women's Health Issues</td>
</tr>
<tr>
<td>Molecular Human Reproduction</td>
<td>Journal of Ovarian Research</td>
</tr>
<tr>
<td>Placenta</td>
<td>Journal of Lower Genital Tract Disease</td>
</tr>
<tr>
<td>Contraception</td>
<td>Journal of Pregnancy</td>
</tr>
<tr>
<td>International Journal of Gynecology and Obstetrics</td>
<td>Seminars in Reproductive Medicine</td>
</tr>
<tr>
<td>Archives of Disease in Childhood: Fetal and Neonatal Edition</td>
<td>Reproductive Sciences</td>
</tr>
<tr>
<td>Reproduction</td>
<td>Infectious Diseases in Obstetrics and Gynecology</td>
</tr>
<tr>
<td>Prenatal Diagnosis</td>
<td>International Urogynecology Journal and Pelvic Floor Dysfunction</td>
</tr>
<tr>
<td>BMC Pregnancy and Childbirth</td>
<td>International Breastfeeding Journal</td>
</tr>
<tr>
<td>Twin Research and Human Genetics</td>
<td>Early Human Development</td>
</tr>
<tr>
<td>American Journal of Reproductive Immunology</td>
<td>Current Opinion in Obstetrics and Gynecology</td>
</tr>
<tr>
<td>Reproductive Health</td>
<td>Midwifery</td>
</tr>
<tr>
<td>Journal of Sexual Medicine</td>
<td>Journal of Human Lactation</td>
</tr>
<tr>
<td>Menopause</td>
<td>American Journal of Perinatology</td>
</tr>
<tr>
<td>Archives of Women's Mental Health</td>
<td>Journal of Assisted Reproduction and Genetics</td>
</tr>
</tbody>
</table>

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Historical data show that maternal mortality rates were lowest for home deliveries undertaken by trained and supervised midwives with no exceptions.

Annual maternal mortality rates in the United States, England and Wales, and Sweden, 1890–1950


www.birthbythenumbers.org
<table>
<thead>
<tr>
<th>Cause of death</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1872–1876 ( (n = 23,051)^1 )</td>
<td></td>
</tr>
<tr>
<td>Puerperal fever</td>
<td>55.5</td>
</tr>
<tr>
<td>Hemorrhage(^2)</td>
<td>21.0</td>
</tr>
<tr>
<td>Puerperal convulsions</td>
<td>11.6</td>
</tr>
<tr>
<td>Miscarriage and abortion</td>
<td>4.0</td>
</tr>
<tr>
<td>Puerperal mania</td>
<td>2.5</td>
</tr>
<tr>
<td>Phlegmasia dolens(^3)</td>
<td>2.0</td>
</tr>
<tr>
<td>Retained placenta</td>
<td>1.5</td>
</tr>
<tr>
<td>Extrauterine foetation</td>
<td>0.2</td>
</tr>
<tr>
<td>Other</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Annual maternal mortality rates attributable to puerperal fever and to all other causes (logarithmic scale), in England and Wales, 1920-1945


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But what about me (i.e. Massachusetts)?
May 1, 1919

A YEAR’S STUDY OF THE MATERNITY WARD AT THE BOSTON CITY HOSPITAL.

BY BESS LYNDE RUSSELL, BOSTON,

Department of Medical-Social Work, Boston City Hospital

9 deaths
400 births =

MMR 2,250 per 100,000

Pre-Natal Care. In a group of 400 patients admitted to the maternity ward, 262, or 60%, had received no pre-natal care;

a. 189 patients, or 42%, of our admission group came for first confinement (presumably a group ignorant concerning the hygiene of pregnancy).
b. 101 patients, or 22%, admitted having had previous miscarriage.
c. 18 patients, or 4%, admitted having had more than one previous miscarriage.
d. 26 patients had babies, still born or died before discharge of mother from hospital.

1. Of 85% of the babies who died,
   62% were premature,
   19% were still born,
   4% had congenital syphilis.
e. Of 9 patients who died, over 50% died with maternity complicated by eclamptic or pulmonary symptoms.
Massachusetts Maternal Mortality Ratios (per 100K Births) 1956-84

Source: Sachs. NEJM. 1987.316:667-672

www.birthbythenumbers.org
Maternal Mortality Ratios (per 100K Births) 1956-84

Mass MMR

U.S.MMR

U.S Estimate Mass. MMR

Source: Sachs. NEJM. 1987.316:667-672

<table>
<thead>
<tr>
<th>Variable</th>
<th>Period</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal deaths</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>20</td>
<td>11</td>
<td>79 (100)</td>
</tr>
<tr>
<td>Preventable deaths</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>14</td>
<td>3</td>
<td>34 (43)</td>
</tr>
<tr>
<td>Responsibility assigned to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>0</td>
<td>14 (18)</td>
</tr>
<tr>
<td>Hospital</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Patient</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5 (6)</td>
</tr>
<tr>
<td>Physician and patient</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>5 (6)</td>
</tr>
<tr>
<td>Hospital and patient</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Unknown or undetermined</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>8 (10)</td>
</tr>
</tbody>
</table>

Source: Sachs. NEJM. 1987. 316:667-672
Maternal Mortality Ratios 1956-84

www.birthbythenumbers.org
Maternal Mortality Rate per 100,000 Live Births, 2003-07


www.birthbythenumbers.org
Contemporary Massachusetts Context

Mortality Patterns Between Five States With Highest Death Rates and Five States With Lowest Death Rates: United States, 2017

• 9th lowest age-adjusted death rate overall
• Lowest overall IMR (2015-2017)
  • 3rd for white IMR;
  • Lowest for NHB IMR;
  • 16th for Hispanic IMR
• 8th lowest in Home Births
• 29th in births attended by “other” midwives
• 9th in CNM Births
• 24th highest cesarean rates
CNM Attendance at Birth, U.S. and Massachusetts 1990-2018

www.birthbythenumbers.org
“Other” Midwives Attendance at Birth, U.S.
1990-2018

www.birthbythenumbers.org
“Other” Midwives Attendance at Birth, U.S. and Massachusetts 1990-2018

www.birthbythenumbers.org
Home Births in the U.S. and Massachusetts, 1990-2018
Home Births in the U.S. and Massachusetts, 1990-2018

U.S.
Massachusetts

www.birthbythenumbers.org
Infant Mortality (per 1,000 live births) in the U.S. and Massachusetts, 1995-2017

www.birthbythenumbers.org
Infant Mortality (per 1,000 live births) in the U.S. and Massachusetts, 1995-2017

- **U.S.**: 7.6 (1995) to 5.8 (2017)
- **Massachusetts**: 5.2 (1995) to 3.7 (2017)

Source: www.birthbythenumbers.org
What we’ll be discussing

1. Some background – how did we get here?
2. The crisis in measuring maternal mortality
3. Five key points concerning maternal mortality
   • The persistence of racial disparities
   • The U.S. in a comparative context
   • Maternal mortality is a public health problem more than a clinical one
   • The problem is much bigger than maternal deaths
   • Potential policy solutions

www.birthbythenumbers.org
First, some background
Clarifying Definitions:
Pregnancy Associated Mortality

Pregnancy Associated Mortality (1 year)

All Deaths women of reproductive age pregnancy to 1 year ppm

www.birthbythenumbers.org
Clarifying Definitions:
Pregnancy Related Mortality

Pregnancy Associated Mortality (1 year)

Pregnancy Related Mortality (1 year)

All Deaths women during pregnancy, birth and up to 1 year ppm & Related to the pregnancy

www.birthbythenumbers.org
Clarifying Definitions:

Maternal Mortality

- Pregnancy Associated Mortality (1 year)
- Maternal Mortality (42 days)
- Pregnancy Related Mortality (1 year)

All Deaths women during pregnancy, birth and up to 42 days ppm Related to the pregnancy

NOTE: WHO defines pregnancy related term

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Three Definitions (in the U.S.)

• **Pregnancy Associated Death** – The death of a woman while pregnant or within one year of termination of pregnancy, irrespective of cause. (WHO calls these “pregnancy related”). Starting point for analyses.

• **Maternal Mortality Ratio** – the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. Typically reported as a ratio per 100,000 births. Used in international comparisons.

• **Pregnancy Related Death** – the death of a woman during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy. Used by CDC for U.S. trends.
Timeline of Maternal Mortality Definitions

WHO Definition of Maternal Death

- Pregnancy
- Birth
- 42 days PPM
- 42 days PPM to 1 year

WHO Maternal Mortality
CDC Pregnancy Related
Pregnancy Associated

PPM – postpartum – period after the birth

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U.S. Maternal Mortality (per 100,000 live births), 1951-2007

1951-1982
89% decline (75.0 to 7.9)

Source: NCHS. Deaths: Final Data. Annual Reports.

www.birthbythenumbers.org
U.S. Maternal Mortality (per 100,000 live births), 1951-2007

1982-1998
Basically no change
7.9 to 7.1

Source: NCHS. Deaths: Final Data. Annual Reports.

www.birthbythenumbers.org
U.S. Maternal Mortality (per 100,000 live births), 1951-2007

1997-2007
78% increase (7.1 to 12.7)

Source: NCHS. Deaths: Final Data. Annual Reports.

The dual problem: substance & measurement

No official maternal mortality ratio for U.S. since 2007

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How did the U.S. get to the point where they stopped publishing a maternal mortality rate?

*Efforts to avoid poor case ascertainment led to over-ascertainment*
<table>
<thead>
<tr>
<th>Cause of death (based on ICD–10, 2004)</th>
<th>All origins¹</th>
<th>Hispanic</th>
<th>Non-Hispanic²</th>
<th>Non-Hispanic white³</th>
<th>Non-Hispanic black³</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal causes</td>
<td>548</td>
<td>95</td>
<td>453</td>
<td>242</td>
<td>178</td>
<td>12.7</td>
</tr>
<tr>
<td>Pregnancy with abortive outcome</td>
<td>31</td>
<td>5</td>
<td>26</td>
<td>8</td>
<td>17</td>
<td>0.7</td>
</tr>
<tr>
<td>Ectopic pregnancy</td>
<td>14</td>
<td>1</td>
<td>13</td>
<td>2</td>
<td>11</td>
<td>*</td>
</tr>
<tr>
<td>Spontaneous abortion</td>
<td>9</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>*</td>
</tr>
<tr>
<td>Medical abortion</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>*</td>
</tr>
<tr>
<td>Other abortion</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>*</td>
</tr>
<tr>
<td>Other and unspecified pregnancy with abortive outcome</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>*</td>
</tr>
<tr>
<td>Other direct obstetric causes</td>
<td>362</td>
<td>67</td>
<td>295</td>
<td>153</td>
<td>117</td>
<td>8.4</td>
</tr>
<tr>
<td>Eclampsia and pre-eclampsia</td>
<td>64</td>
<td>13</td>
<td>51</td>
<td>29</td>
<td>19</td>
<td>1.5</td>
</tr>
<tr>
<td>Hemorrhage of pregnancy and childbirth and placenta previa</td>
<td>41</td>
<td>12</td>
<td>29</td>
<td>18</td>
<td>9</td>
<td>*</td>
</tr>
<tr>
<td>Complications predominately related to the puerperium</td>
<td>43</td>
<td>15</td>
<td>78</td>
<td>35</td>
<td>31</td>
<td>2.2</td>
</tr>
<tr>
<td>Obstetrical tetanus</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>*</td>
</tr>
<tr>
<td>Obstetric embolism</td>
<td>33</td>
<td>6</td>
<td>27</td>
<td>12</td>
<td>8</td>
<td>0.8</td>
</tr>
<tr>
<td>Other complications predominately related to the puerperium</td>
<td>60</td>
<td>9</td>
<td>51</td>
<td>23</td>
<td>23</td>
<td>1.4</td>
</tr>
<tr>
<td>All other direct obstetric causes</td>
<td>164</td>
<td>27</td>
<td>137</td>
<td>71</td>
<td>58</td>
<td>3.8</td>
</tr>
<tr>
<td>Obstetric death of unspecified cause</td>
<td>20</td>
<td>4</td>
<td>16</td>
<td>7</td>
<td>7</td>
<td>0.5</td>
</tr>
<tr>
<td>Indirect obstetric causes</td>
<td>155</td>
<td>19</td>
<td>116</td>
<td>74</td>
<td>37</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Maternal causes more than 42 days after delivery or termination of pregnancy | 221 | 39 | 181 | 92 | 70 | 5.1 |

Death from any obstetric cause occurring more than 42 days but less than 1 year after delivery | 215 | 38 | 176 | 92 | 68 | 5.0 |

Death from sequelae of direct obstetric causes | 6 | 1 | 5 | 1 | 4 | 0.7 |

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1. Data for Hispanic persons are not tabulated separately by race; data for non-Hispanic persons are tabulated by race.
2. Persons of Hispanic origin may be of any race.
3. Rates are per 100,000 live births in specified groups.


#### PART II (Other significant conditions)
- Enter all diseases or conditions contributing to death that were not reported in the chain of events in Part I and that did not result in the underlying cause of death. See attached examples.
- If two or more possible sequences resulted in death, or if two conditions seem to have added together, report in Part I the one that, in your opinion, most directly caused death. Report in Part II the other conditions or diseases.

#### CHANGES TO CAUSE OF DEATH
Should additional medical information or autopsy findings become available that would change the cause of death originally reported, the original death certificate should be amended by the certifying physician by immediately reporting the revised cause of death to the State Vital Records Office.

#### ITEMS 33-34 - AUTOPSY
- 33 - Enter "Yes" if either a partial or full autopsy was performed. Otherwise enter "No."
- 34 - Enter "Yes" if autopsy findings were available to complete the cause of death; otherwise enter "No." Leave item blank if no autopsy was performed.

#### ITEM 35 - DID TOBACCO USE CONTRIBUTE TO DEATH?
Check "yes" if, in your opinion, the use of tobacco contributed to death. Tobacco use may contribute to deaths due to a wide variety of diseases; for example, tobacco use contributes to many deaths due to emphysema or lung cancer and some heart disease and cancers of the head and neck. Check "no" if, in your clinical judgment, tobacco use did not contribute to this particular death.

#### ITEM 36 - IF FEMALE, WAS DECEDENT PREGNANT AT TIME OF DEATH OR WITHIN PAST YEAR?
This information is important in determining pregnancy-related mortality.

#### ITEM 37 - MANNER OF DEATH
- Always check Manner of Death, which is important: 1) in determining accurate causes of death; 2) in processing insurance claims; and 3) in statistical studies of injuries and death.
- Indicate "Pending Investigation" if the manner of death cannot be determined whether due to an accident, suicide, or homicide within the statutory time limit for filing the death certificate. This should be changed later to one of the other terms.
- Indicate "Could not be Determined" ONLY when it is impossible to determine the manner of death.
To improve case identification:


Checkbox format:

IF FEMALE:

- Not pregnant within past year
- Pregnant at time of death
- Not pregnant, but pregnant within 42 days of death
- Not pregnant, but pregnant 43 days to 1 year before death
- Unknown if pregnant within the past year

Meant to solve 2 problems:

1. Most states had no such question; and
2. Different questions used in different states

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The Check Box
Determining Pregnancy Status to Improve Maternal Mortality Surveillance

Andrea P. MacKay, MSPH, Roger Rochat, MD, Jack C. Smith, MS, Cynthia J. Berg, MD, MPH

Objective: More than half of pregnancy-related deaths are not identified through routine surveillance methods. The purpose of this study was to evaluate the effectiveness of the pregnancy check box on death certificates in ascertaining pregnancy-related deaths.

Methods: Data derived from the Centers for Disease Control and Prevention’s ongoing Pregnancy Mortality Surveillance System were used to identify states that included a check box on the death certificate in 1991 and 1992. Death certificates from those states were evaluated to determine the number and proportion of pregnancy-related deaths identified by a marked check box. Characteristics of death were also examined.

Results: Sixteen states and New York City included a check box or question specifically asking about pregnancy of the decedent. Of the 425 pregnancy-related deaths identified in the 17 reporting areas, 124 (29%) were determined to be pregnancy-related deaths only because of the pregnancy status information provided in the check box. The proportion of deaths identified only by a marked check box ranged from less than 5% for four states to 40% or more for seven states.

Conclusions: The availability of pregnancy status information on death certificates is a simple and effective aid in ascertaining a pregnancy-related death, when no other indicators of pregnancy appear on the death certificate. Routine use of the pregnancy check box for all states would lead to substantially increased classification of maternal deaths and more accurate classification of the causes of and risk factors for maternal deaths.


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16 States already had a checkbox as far back as 1991-1992, but with different wording
Table III. Separate questions related to pregnancy on state certificates in 2003

<table>
<thead>
<tr>
<th>State</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Was a pregnancy in the last 42 days? (Specify Yes, No, or Unknown)</td>
</tr>
<tr>
<td>California</td>
<td>If female, pregnant in last year? □ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>Florida</td>
<td>If female, was there a pregnancy in the past 3 months? □ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>If female aged 10–54:</td>
</tr>
<tr>
<td></td>
<td>□ not pregnant within past year □ pregnant at time of death □ not pregnant, but pregnant within</td>
</tr>
<tr>
<td>Idaho</td>
<td>42 days of death □ not pregnant, but pregnant 43 days to 1 year before death □ unknown if pregnant within the past year</td>
</tr>
<tr>
<td>Illinois</td>
<td>If female, was there a pregnancy in the past three months? □ Yes □ No</td>
</tr>
<tr>
<td>Indiana</td>
<td>Was decedent pregnant or 90 days postpartum? (Yes or no)</td>
</tr>
<tr>
<td>Iowa</td>
<td>If female, was there a pregnancy in the past 12 months? (Specify yes or no)</td>
</tr>
<tr>
<td>Kentucky</td>
<td>If female, was there a pregnancy in the past 12 months? □ Yes □ No</td>
</tr>
<tr>
<td>Louisiana</td>
<td>If female:</td>
</tr>
<tr>
<td></td>
<td>Was decedent pregnant in the past 12 months? □ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>Maryland</td>
<td>Separate fields on dates of death and delivery support capability to compute the other categories in the standard.</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Was female pregnant:</td>
</tr>
<tr>
<td></td>
<td>At death? □ Yes □ No □ No □ unknown</td>
</tr>
<tr>
<td>Mississippi</td>
<td>In last 12 months? □ Yes □ No □ No □ unknown</td>
</tr>
<tr>
<td>Missouri</td>
<td>Had decedent been pregnant within 90 days prior to death? □ Yes □ No</td>
</tr>
<tr>
<td>Montana</td>
<td>If deceased was female 10–49, was she pregnant in the last 90 days? □ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>Nebraska</td>
<td>If female:</td>
</tr>
<tr>
<td></td>
<td>□ not pregnant within past year □ not pregnant but pregnant with 42 days of death</td>
</tr>
<tr>
<td>New Jersey</td>
<td>□ not pregnant but pregnant 43 days to 1 year before death □ pregnant at time of death</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Was decedent pregnant within last 6 weeks? □ Yes □ No</td>
</tr>
<tr>
<td>New York City</td>
<td>Also have date of outcome, so could compute intervals if needed.</td>
</tr>
<tr>
<td></td>
<td>If female:</td>
</tr>
<tr>
<td></td>
<td>□ not pregnant within 1 year of death □ pregnant at time of death □ not pregnant at time of death □ not pregnant at time of death □ not pregnant at time of death □ not pregnant at time of death □ not pregnant at time of death</td>
</tr>
<tr>
<td>New York State</td>
<td>Also have date of delivery, so could compute intervals if needed.</td>
</tr>
<tr>
<td>North Dakota</td>
<td>Was deceased pregnant within 18 months of death? □ Yes □ No</td>
</tr>
<tr>
<td>Texas</td>
<td>Was decedent pregnant at time of death □ Yes □ No □ Unknown</td>
</tr>
<tr>
<td></td>
<td>within last 12 months □ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>Virginia</td>
<td>If female, was there a pregnancy in the past 3 months? □ Yes □ No □ Unknown</td>
</tr>
</tbody>
</table>

Delays in Adoption of the U.S. Standard Pregnancy Question among States

<table>
<thead>
<tr>
<th>Year</th>
<th>New Adopters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2004</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>2005</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>2006</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>2007</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>2008</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>2009</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>2010</td>
<td>4</td>
<td>35</td>
</tr>
<tr>
<td>2011</td>
<td>2</td>
<td>37</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>2013</td>
<td>1</td>
<td>42</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
<td>47</td>
</tr>
<tr>
<td>2015</td>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td>2016</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>2017</td>
<td>1</td>
<td>51</td>
</tr>
</tbody>
</table>

Specific State

- **California** | 2003
- **New Hampshire** | 4/2004
- **Connecticut** | 2005
- **Minnesota** | 3/2011
- **Wisconsin** | 9/2013
- **Massachusetts** | 9/2014

*Note: Some states adopted change in the middle of the calendar year.*

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Our Analysis

We did an analysis that examined data by state, modeled for whether or not they were using the new item, and came up with national estimates.

Not enough cases to do single state analyses, but could look at some of the larger states.
Original Research

Recent Increases in the U.S. Maternal Mortality Rate

Disentangling Trends From Measurement Issues

Marian F. MacDorman, PhD, Eugene Declercq, PhD, Howard Cabral, PhD, and Christine Morton, PhD

RESULTS: The estimated maternal mortality rate (per 100,000 live births) for 48 states and Washington, DC (excluding California and Texas, analyzed separately) increased by 26.6%, from 18.8 in 2000 to 23.8 in 2014. California showed a declining trend, whereas Texas had a sudden increase in 2011–2012. Analysis of the measurement change suggests that U.S. rates in the early 2000s were higher than previously reported.

Grouping the States

- **Group 1** – 24 states & D.C. that did not have an unrevised pregnancy question and adopted the U.S. standard question by January 2013

- **Group 2** – 14 states that had an unrevised pregnancy question with a timeframe longer than the U.S. standard

- **Group 3** – 7 states that had not revised by late 2013 with either no pregnancy question or a nonstandard pregnancy question on their unrevised death certificate.

- **Group 4** – 3 states that had an unrevised pregnancy question consistent with the U.S. standard.

*California and Texas are unique – each in their own ways*
Group 1 states (had no question & added Standard)

Rate per 100,000 live births

 Correction Factor: 1.93

Was this a more accurate representation of state ratios or an overestimation?

Note: Includes 24 states that did not have a pregnancy question on their unrevised death certificate and which adopted the U.S. standard question upon revision: Arkansas, Arizona, Connecticut, Delaware, Georgia, Idaho, Kansas, Maine, Michigan, Montana, New Hampshire, Nevada, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Washington, and Wyoming.
Note: Group 3 includes 8 states who did not have a pregnancy question on their unrevised death certificate (Alaska, Colorado, Hawaii, North Carolina, Massachusetts, West Virginia, and Wisconsin) or who had a pregnancy question with a longer timeframe (Virginia) and had not revised as of late 2013. (Wisconsin revised in late 2013 and their data were excluded from the 2013 data point.) Group 4 includes 3 states (Alabama, Maryland and New Mexico) who had an unrevised pregnancy question consistent with the U.S. standard.

www.birthbythenumbers.org
Adjusted MMRs, Texas, 2000-2014

Texas revised to the U.S. standard pregnancy question in 2006. The unrevised question asked about pregnancies within the past 12 months. Analysis group 2 correction factor was used to adjust unrevised data.
Is there a Problem Over Ascertainment??

• Research into the cause of death category finds much of the increase is coming from *less specific ICD-10 codes.*

• Other specified pregnancy-related conditions (O26.8)
• Other obstetric complications (O21–O22, O24–O41.0, O41.8–O43.1, O43.8–O43.9, O47–O66, O68–O70, O71.2, O71.5–O71.6, O71.8, O71.9, O73–O75.2, O75.4–O75.9, O87–O90, O92)
• Other specified diseases and conditions (O99.8)
• Obstetric death of unspecified cause (O95)

www.birthbythenumbers.org
Assessing the impact of ill-defined causes on maternal deaths and mortality rates by cause of death, 27 states and DC, 2008-2009 to 2013-2014

<table>
<thead>
<tr>
<th>Underlying cause of death (ICD-10 category)</th>
<th>2008-9</th>
<th>2013-14</th>
<th>Percent change 2008-9 to 2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total maternal (A34, O00-O05, O98-O99)</strong></td>
<td>780</td>
<td>20.6</td>
<td>907</td>
</tr>
<tr>
<td>Ill-defined causes (O26.8, O95, O99.8)</td>
<td>266</td>
<td>7.0</td>
<td>371</td>
</tr>
<tr>
<td>Total maternal minus ill-defined causes (Remainder)</td>
<td>514</td>
<td>13.5</td>
<td>536</td>
</tr>
<tr>
<td><strong>Total direct obstetric (A34, O00-O92)</strong></td>
<td>527</td>
<td>13.9</td>
<td>595</td>
</tr>
<tr>
<td>Other specified pregnancy-related conditions (O26.8)</td>
<td>130</td>
<td>3.4</td>
<td>212</td>
</tr>
<tr>
<td>Total direct obstetric minus O26.8 (Remainder)</td>
<td>397</td>
<td>10.5</td>
<td>383</td>
</tr>
<tr>
<td><strong>Total indirect causes (O98-O99)</strong></td>
<td>202</td>
<td>5.3</td>
<td>294</td>
</tr>
<tr>
<td>Other specified diseases and conditions (O99.8)</td>
<td>85</td>
<td>2.2</td>
<td>141</td>
</tr>
<tr>
<td>Total indirect causes minus O99.8 (Remainder)</td>
<td>117</td>
<td>3.1</td>
<td>153</td>
</tr>
</tbody>
</table>
Over-ascertainment: Results of a 4 state study (Georgia, Louisiana, Michigan, and Ohio)

Pregnancy Checkbox Accuracy

In 28% of cases with pregnancy checkbox checked, not certain woman was pregnant

Impact of the Checkbox – Better and Worse Ascertainment

• While the checkbox contributed to errors, the Four Committee data show that the checkbox also improved identification of pregnancy-related deaths. Without the pregnancy checkbox, approximately:

  • 50% of pregnancy-related deaths that occurred during pregnancy
  • 11% of pregnancy-related deaths that occurred within 42 days of the end of pregnancy, and
  • 8% of pregnancy-related deaths that occurred within 43 days to 1 year of the end of pregnancy would have been missed.

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So has there been any way to monitor maternal death since 2007?

CDC and Pregnancy Related Mortality

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Three Sources of U.S. Maternal Death Data

• **National Vital Statistics System (NVSS).** This is the source of the official maternal mortality ratio for the United States and is based on “...information from death certificates filed in the 50 states and the District of Columbia that are subsequently compiled into national data..... Physicians, medical examiners, and coroners are responsible for completing the medical portion of the death certificate.” These state data are compiled by NCHS into a national data system.

• **Pregnancy Mortality Surveillance System (PMSS).** This system was established by CDC. It is based on reports from 52 areas (50 states, Washington, D.C. and New York city) which submits to CDC “... deidentified copies of death certificates for females 12–55 years who died during or within 1 year of pregnancy from any cause; when available, linked birth or fetal death certificates are also sent. Additional sources include computerized searches of Lexis Nexis, reports by public health agencies, including state-based maternal mortality review committees, professional organizations, and individual health care providers.” The records are reviewed by specially trained clinicians to determine whether or not a death was pregnancy related.

• **Maternal Mortality Review Information Application (MMRIA).** State interdisciplinary committees do case reviews of maternal deaths. CDC building a data system to compile data from MMRCs. Project got a major boost in recent federal legislation.

www.birthbythenumbers.org
Pregnancy Mortality Surveillance System

When did CDC start conducting national surveillance of pregnancy-related deaths?

CDC initiated national surveillance of pregnancy-related deaths in 1986 because more clinical information was needed to fill data gaps about causes of maternal death.

How does CDC define pregnancy-related deaths?

For reporting purposes, a pregnancy-related death is defined as the death of a woman while pregnant or within 1 year of pregnancy termination—regardless of the duration or site of the pregnancy—from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

How are the data collected and coded?

Each year, CDC requests the 52 reporting areas (50 states, New York City, and Washington DC) to voluntarily send copies of death certificates for all women who died during pregnancy or within 1 year of pregnancy, and copies of the matching birth or fetal death certificates, if they have the ability to perform such record linkage. All of the information obtained is summarized, and medically trained epidemiologists determine the cause and time of death related to the pregnancy. Causes of death are coded by using a system established in 1986 by the American College of Obstetricians and Gynecologists and the Centers for Disease Control and Prevention Maternal Mortality Study Group.

How are the data used?

Data are analyzed by CDC scientists. Information about causes of pregnancy-related deaths and risk factors associated with these deaths is released periodically through peer-reviewed literature, CDC's Morbidity and Mortality Weekly Reports, and the CDC Web site. This information helps clinicians and public health professionals to better understand circumstances surrounding pregnancy-related deaths and to take appropriate action.
Data for CDCs Pregnancy Related Mortality System

Each year, CDC requests the 52 reporting areas (50 states, New York City, and Washington DC) to voluntarily send copies of death certificates for all women who died during pregnancy or within 1 year of pregnancy, and copies of the matching birth or fetal death certificates, if they have the ability to perform such record links. All of the information obtained is summarized, and medically trained epidemiologists determine the cause and time of death related to the pregnancy. Causes of death are coded by using a system established in 1986 by the American College of Obstetricians and Gynecologists and the Centers for Disease Control and Prevention Maternal Mortality Study Group.

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Our best existing measure


![Graph showing Pregnancy Related Mortality Ratio per 100,000 births from 1987 to 2016.]

Timing of Maternal Deaths

- **Before Delivery**
  - 42-365 Days PPM: 31.3%
  - 7-41 Days PPM: 21.4%
  - 1-6 Days PPM: 18.6%
  - Day of Delivery: 16.9%
  - 11.7% other

Timing of Maternal Deaths

If 11.7% of the pregnancy related deaths occur at 42+ days, then the maternal mortality ratio should be approximately 88.3% of the pregnancy related mortality rate.


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Based on assumption of 11.7% of deaths ppm


Racial Disparities (2015-16):
11.7   White women
36.0   Black women
10.2   Hispanic


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Summary of Background

- Attempts to improve case ascertainment resulted in improved identification of cases during pregnancy, but general over-ascertainment.
- Despite the measurement problems, clear evidence of a rising pregnancy-related mortality rate.
Five key points concerning maternal mortality

1. The persistence of racial disparities

2. The U.S. in a comparative context

3. Maternal mortality is a public health problem more than a clinical one

4. The problem is much bigger than maternal deaths

5. Potential policy solutions
1. The persistence of racial disparities
U.S. Maternal Mortality (per 100,000 live births), 1951-2016* by Race

* Rates from 2008-2016 blend two year averages and based on Petersen E. MMWR vol.68.No. 35 Sept. 6, 2019. 762-765 with pregnancy related rates adjusted for timing of deaths

www.birthbythenumbers.org
(1) The Persistence of Racial Disparities

U.S. Infant & Maternal Mortality

Black to White Ratios, 1915-2016

Source: NCHS. Maternal Mortality and Related Concepts. Vital & Health Statistics. Series 33; #3. & annual data reports. 1915-1960 data from NCHS. Vital Statistics Rates In The United States 1940-1960. NOTE: Shifts in measurement (e.g. not all states were part of registration system prior to 1933; infant race was based on race of the child until 1980 & then race of the mother post 1980) accounts for some of the variation over time. 2007-2016 based on 2 year estimates of the pregnancy related mortality rate: Petersen E. MMWR.9/6/19.

www.birthbythenumbers.org
Manifestation of Racial Disparities

Leading Underlying Causes of Pregnancy-Related Deaths, by Race-Ethnicity

<table>
<thead>
<tr>
<th>Cause</th>
<th>Non-Hispanic White</th>
<th>Non-Hispanic Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemorrhage</td>
<td>10.5</td>
<td>12.8</td>
</tr>
<tr>
<td>Cardiavasc.&amp;Coronary Conditions</td>
<td>14.4</td>
<td>15.5</td>
</tr>
<tr>
<td>Infection</td>
<td>8.1</td>
<td>13.4</td>
</tr>
<tr>
<td>Cardiomyopathy</td>
<td>10.3</td>
<td>14.0</td>
</tr>
<tr>
<td>Embolism</td>
<td>5.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Preeclampsia &amp; Eclampsia</td>
<td>5.2</td>
<td>11.6</td>
</tr>
<tr>
<td>Mental Health Cond.</td>
<td>1.2</td>
<td>11.3</td>
</tr>
</tbody>
</table>


www.birthbythenumbers.org
2. Now that we have a reliably estimated maternal mortality rate, how does the U.S. compare internationally?
Countries in green have fewer than 100,000 births.

Let’s do a more reasonable comparison


www.birthbythenumbers.org
Putting the Problem in Context

U.S. MMR* Compared to Countries with 300,000+ births, 2016-7

<table>
<thead>
<tr>
<th>Country</th>
<th>MMR Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>4</td>
</tr>
<tr>
<td>Japan</td>
<td>5</td>
</tr>
<tr>
<td>Australia</td>
<td>6</td>
</tr>
<tr>
<td>Germany</td>
<td>7</td>
</tr>
<tr>
<td>U.K.</td>
<td>7</td>
</tr>
<tr>
<td>France</td>
<td>8</td>
</tr>
<tr>
<td>Canada</td>
<td>10</td>
</tr>
<tr>
<td>Korea</td>
<td>11</td>
</tr>
<tr>
<td>U.S.</td>
<td>14.8#</td>
</tr>
</tbody>
</table>

* Maternal Mortality per 100,000 births; # Estimated from 2016 U.S. Pregnancy Related Mortality.

WHO estimates U.S. as having an MMR of 19.

Putting the Problem in Context

**U.S. MMR* Compared to Countries with 300,000+ births, 2016-7**

<table>
<thead>
<tr>
<th>Country</th>
<th>Maternal Mortality per 100,000 births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>4</td>
</tr>
<tr>
<td>Japan</td>
<td>5</td>
</tr>
<tr>
<td>Australia</td>
<td>6</td>
</tr>
<tr>
<td>Germany</td>
<td>7</td>
</tr>
<tr>
<td>U.K.</td>
<td>7</td>
</tr>
<tr>
<td>France</td>
<td>8</td>
</tr>
<tr>
<td>Canada</td>
<td>10</td>
</tr>
<tr>
<td>Korea</td>
<td>11</td>
</tr>
<tr>
<td>U.S. NHW</td>
<td>11.7</td>
</tr>
<tr>
<td>U.S.</td>
<td>14.8#</td>
</tr>
</tbody>
</table>

* Maternal Mortality per 100,000 births; # Estimated from 2016 U.S. Pregnancy Related Mortality.


**Racial Disparities (2015-16):**
- 11.7 White women
- 36.0 Black women
- 10.2 Hispanic

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Deaths per 100,000 live births

US vs Comparable Countries

Estimated U.S. Maternal Mortality Ratios (per 100K births), 2000-2016, U.S. & Comparable Countries *


* Countries with 300,000+ births (2015): Australia, Canada, France, Germany, Italy, Japan, S. Korea, Spain, United Kingdom

www.birthbythenumbers.org
3. Maternal mortality is a public health problem more than a clinical one.
Remember this chart?

Timing of Pregnancy Related Deaths

- Before Delivery: 31.3%
- Day of Delivery: 16.9%
- 7-41 Days PPM: 21.4%
- 1-6 Days PPM: 18.6%
- 42-365 Days PPM: 11.7%

Maternal deaths are a public health issue as much as a clinical care issue.


(3) Moving to a Public Health Approach


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Moving to a Public Health Approach

Leading Underlying Causes of Pregnancy-Related Deaths, by Timing of Death

4. The problem is much bigger than maternal deaths
Not just about maternal mortality

Maternal deaths represent the canary in the coal mine for women’s health

By Eugene Declercq and Nael Shalh
August 22, 2018

National Vital Statistics Reports
Volume 68, Number 9
June 24, 2019

Deaths: Final Data for 2017

STAT

www.birthbythenumbers.org
### Births in U.S. by Maternal Age, 2018

<table>
<thead>
<tr>
<th>Age</th>
<th># Births</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>181,607</td>
<td>4.8%</td>
</tr>
<tr>
<td>20-24</td>
<td>726,175</td>
<td>19.2%</td>
</tr>
<tr>
<td>25-29</td>
<td>1,099,491</td>
<td>29.0%</td>
</tr>
<tr>
<td>30-34</td>
<td>1,090,697</td>
<td>28.8%</td>
</tr>
<tr>
<td>35+</td>
<td>693,742</td>
<td>18.3%</td>
</tr>
<tr>
<td>Total</td>
<td>3,791,712</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
The Problem is Bigger than Maternal Mortality

*Overall Deaths rates (per 100K), Females 25-34, by Race/Ethnicity, 2000-2017*

Non-Hispanic Black

Non-Hispanic White

Hispanic

Non-Hispanic Asian Pacific Islander

www.birthbythenumbers.org
The Problem is Bigger than Maternal Mortality

Overall Deaths rates (per 100K), Females 25-34, by Race/Ethnicity, 2010-2017

- Non-Hispanic Black
- Non-Hispanic White
- Hispanic
- All
- Non-Hispanic Asian Pacific Islander

% Increase 2010-2017
- Non-Hispanic Black: 8%
- Non-Hispanic White: 35%
- Hispanic: 26%
- All: 27%
- Non-Hispanic Asian Pacific Islander: -1%

All Female Deaths 25-34
- 2010: 13,067
- 2017: 18,066

NOTE: Pregnancy related mortality rate increased by <1% 2010-2017

Source: NCHS.CDC Wonder Online Database

www.birthbythenumbers.org
Ratio of Black/White Female Death Rates, Women 25-34, 2000-2017

NHW Rate Increase 2000-2017: 58.8%
NHB Rate Decrease 2000-2017: -15.2%

www.birthbythenumbers.org
## Top 10 Causes of Death for Women 25-34 in 2017

<table>
<thead>
<tr>
<th>All causes</th>
<th>Total Deaths</th>
<th>% of total</th>
<th>Rate per 100K</th>
<th>% Change in rate 2010-2017</th>
<th>Proportion of 2010-17 Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>All causes</td>
<td>18,066</td>
<td>100.0</td>
<td>80.8</td>
<td><strong>26.3%</strong></td>
<td>---</td>
</tr>
<tr>
<td>Accidents (unintentional inj.)</td>
<td>6,668</td>
<td>36.9</td>
<td>29.8</td>
<td><strong>61.1%</strong></td>
<td>58.0%</td>
</tr>
<tr>
<td>Malignant neoplasms</td>
<td>1,926</td>
<td>10.7</td>
<td>8.6</td>
<td><strong>-4.4%</strong></td>
<td>1.8%</td>
</tr>
<tr>
<td>Intentional self-harm (suicide)</td>
<td>1,600</td>
<td>8.9</td>
<td>7.2</td>
<td><strong>35.8%</strong></td>
<td>10.2%</td>
</tr>
<tr>
<td>Diseases of heart</td>
<td>1,232</td>
<td>6.8</td>
<td>5.5</td>
<td>12.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Assault (homicide)</td>
<td>881</td>
<td>4.9</td>
<td>3.9</td>
<td>18.2%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Pregnancy, childbirth &amp; puerperium</td>
<td>512</td>
<td>2.8</td>
<td>2.3</td>
<td><strong>27.8%</strong></td>
<td>2.9%</td>
</tr>
<tr>
<td>Chronic liver disease and cirrhosis</td>
<td>367</td>
<td>2.0</td>
<td>1.6</td>
<td>23.1%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>352</td>
<td>1.9</td>
<td>1.6</td>
<td>23.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>254</td>
<td>1.4</td>
<td>1.1</td>
<td><strong>-8.3%</strong></td>
<td>0.0%</td>
</tr>
<tr>
<td>Septicemia</td>
<td>192</td>
<td>1.1</td>
<td>0.9</td>
<td>0.0%</td>
<td>0.2%</td>
</tr>
<tr>
<td>All other causes (residual)</td>
<td>4,082</td>
<td>22.6</td>
<td>18.3</td>
<td>11.6%</td>
<td>---</td>
</tr>
</tbody>
</table>

5. Potential policy solutions
H. R. 4995

To amend the Public Health Service Act to improve obstetric care and maternal health outcomes, and for other purposes.

A BILL

To amend the Public Health Service Act to improve obstetric care and maternal health outcomes, and for other purposes.

1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

2. SECTION 1. SHORT TITLE.

3. This Act may be cited as the “Maternal Health Quality Improvement Act of 2019”.

4. SEC. 2. TABLE OF CONTENTS.

5. The table of contents for this Act is as follows:

   Sec. 1. Short title.
   Sec. 2. Table of contents.

TITLE I—IMPROVING OBSTETRIC CARE IN RURAL AREAS

H. R. 4996

To amend title XIX of the Social Security Act to provide for a State option under the Medicaid program to provide for and extend continuous coverage for certain individuals, and for other purposes.

A BILL

To amend title XIX of the Social Security Act to provide for a State option under the Medicaid program to provide for and extend continuous coverage for certain individuals, and for other purposes.

1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

2. SECTION 1. SHORT TITLE.

3. This Act may be cited as the “Helping Medicaid Offer Maternity Services Act of 2019” or the “Helping MOMS Act of 2019”.

4. SEC. 2. TABLE OF CONTENTS.

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   Sec. 2. Table of contents.
HR 4995

TITLE I—IMPROVING OBSTETRIC CARE IN RURAL AREAS

SEC. 704. RURAL MATERNAL AND OBSTETRIC CARE TRAINING DEMONSTRATION.
SEC. 105. GAO REPORT.

TITLE II—OTHER IMPROVEMENTS TO MATERNAL CARE

SEC. 201. INNOVATION FOR MATERNAL HEALTH.
SEC. 763. TRAINING FOR HEALTH CARE PROVIDERS.
SEC. 204. PERINATAL QUALITY COLLABORATIVES.
SEC. 205. INTEGRATED SERVICES FOR PREGNANT AND POSTPARTUM WOMEN.

$3,000,000 yr 2020-2024
$5,000,000 yr 2020-2024
$10,000,000 yr 2020-2024
$5,000,000 yr 2020-2024
$65,000,000 yr 2020-2024
$15,000,000 yr 2020-2024

www.birthbythenumbers.org
Need is for public health approaches involving improving access for women to preconception, prenatal and postpartum care.

Three components

1. Expanded coverage for Medicaid to fund care – if 12% of the deaths are postpartum why not cover women out to a year?

2. Coverage doesn’t mean anything unless there’s someone to go see – vastly expand midwifery training opportunities in general and for women of color in particular. Likewise expand opportunities for certified doulas to help fill in gaps in the system.

3. Keep women in the system. Problem of loss from the system postpartum.

www.birthbythenumbers.org
WHAT WILL DRIVE THE POLICY PROCESS?

POLITICAL WILL & MEDIA COVERAGE

PROPUBLICA’S LOST MOTHERS SERIES

Nothing Protects Black Women From Dying in Pregnancy & Childbirth

Not education. Not income. Not even being an expert on racial disparities in health care.

www.birthbythenumbers.org
May 3, 2020

DC NATIONAL RALLY
A PRE-MOTHER’S DAY MOVEMENT TO MAKE SURE ALL MOMS GET THE CARE THEY NEED.

Saturday, May 2, 2020
On the National Mall, 2pm

1:00 - 3:30 PM
Our country’s most inspiring moms (and their families)... sounding off... on a rock concert stage... in the heart of the nation’s capital.

Learn more at www.MarchforMoms.org

#BeyondMothersDay

- Promote State & Federal Legislative Efforts to Improve Maternal Health
- Drive Media Attention on State of Maternal Health
- Seek City, State and National Proclamations
- Organize Visits in DC on Capitol Hill May 10th
- Rally on National DC Mall on May 11th
- Livestream the Rally on Facebook Live
- Curate and Promote Daily Themes Related to Maternal Health

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