Collaborative Effort

ADDRESSING MATERNAL MORTALITY RATES

Truth be told, said Robert Bonebrake, M.D., the rise in maternal mortality rates in the United States could be attributed, in part, to contentment.

"To be honest, there was a sense of 'we're the United States; we're the best'—a sense of complacency."

Dr. Bonebrake, who specializes in maternal-fetal medicine at Methodist Women's Hospital, serves as co-medical director of a collaborative aimed at stopping that trend which, he said, started about 30 years ago.

The Nebraska Perinatal Quality Improvement Collaborative, which includes all the birthing hospitals in Nebraska, is providing step-by-step, evidence-based protocols geared toward helping health care providers recognize and address conditions that can put mothers at risk of death or injury. The first of the 11 protocols focuses on hypertension in pregnancy. Others address blood clots, hemorrhage and deep vein thrombosis.

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The need for action to stymie increasing maternal mortality rates came after what Dr. Bonebrake called "one of the biggest public health success stories." In the 1700s and 1800s, he said, maternal mortality rates were approximately 1,000 deaths in 100,000 live births. Thanks to

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— ROBERT BONEBRAKE, M.D.

germ therapy antibiotics in the mid-1800s and the onset of maternal care in the 1950s, the rate dropped to 6 in every 100,000 live births.

No longer. One tally ranks Nebraska in the upper one-half of states, at No. 19, with 16.8 maternal deaths per 100,000 live births—numbers that are slightly better than the U.S. average. Nationally, according to the Centers for Disease Control and Prevention, the United States has the highest maternal mortality rate among the world's top 50 developed nations—and the country's rate is one of three—along with Afghanistan and Sudan—that is rising.

"What's happened in the past 30 years?" Dr. Bonebrake asked. "If I knew that answer…Most people think there are many different factors and not a single prong."

He then lists three possible explanations for the increase: social determinants of health, increased risk factors and access to care.

Dr. Bonebrake also cites confusion about definitions relating to maternal mortality and inconsistency when collecting and reporting health statistics as contributing to the increase mortality rates.

Some definitions: According to the Centers for Disease Control and Prevention, a pregnancy-related death is defined as the "death of a woman while pregnant or within 1 year of the end of a pregnancy—regardless of the outcome, 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." A live birth refers to "the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, which, after such expulsion or extraction, breathes, or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps."

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The 11 protocols were developed by the Alliance for Innovation on Maternal Health, or AIM. The maternal safety bundles, developed by AIM and encouraged by the Nebraska Perinatal Quality Improvement Collaborative, represent best practices for maternity care and are endorsed by national multidisciplinary organizations. The bundles, in addition to focusing on obstetrical hemorrhage, severe hypertension/preeclampsia, and the prevention of venous thromboembolism, focus on such topics as:

- Reduction of Low Risk Primary Cesarean Births/Support for Intended Vaginal Birth
- Reduction of Peripartum Racial Disparities
- Postpartum care access and standards

Dr. Bonebrake noted the bundles may take a health institution two to three years to fully implement. "To implement one bundle is an enormous undertaking and entails an entire hospital—from physicians, patients, ancillary staff and administration."

A revamped Nebraska Maternal Mortality Review Committee will review progress and recommend next steps. Patience is key, he said.

"We may not be able to immediately quantify results—other than to quantify that the state is vested in this and hospitals are vested."

The **Bonebrake** File

Hometown
St. Joseph, Missouri

Undergraduate Degree
Creighton University in mathematics

Medical Degree
Creighton University Medical Center

Residency
CUMC in obstetrics and gynecology

Fellowship
University of California Irvine in maternal-fetal medicine

Specialty
Maternal-fetal medicine

Institution
Methodist Women's Hospital

Hobbies
Spending time with family and friends

Family
Wife, Katie Bonebrake; daughters, Emma Sudyka and Abby Bonebrake; and sons, Ben, Sam, Tommy and Jack Bonebrake

Why He Joined MOMS
"To have the potential for helping sustain the profession of medicine because it is going to be sustained through collegiality and collaboration between physicians."