Researchers uncover alarming trend in U.S. maternal death statistics

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New research from the Maryland Population Research Center (MPRC) at the University of Maryland uncovers some disturbing developments in maternal deaths in the United States, particularly concerning older mothers. When comparing data collected between 2008-2009 with data from 2013-2014 in 27 states and the District of Columbia, researchers found a 90 percent increase in the maternal death rate for women aged 40 and over. The researchers caution, however, that they suspect this spike is skewed by errors in data collected on standard U.S. death certificates.

"This increase in maternal deaths among women aged 40 and older is implausibly high and rapid, and we believe it has much to do with problems related to how information is collected at the time of death and with an over-reporting of maternal deaths," said Marian MacDorman, a research professor at the MPRC and the study's lead investigator.

However, even if much of this increase is the result of over-reporting, the researchers' core findings

represent several reasons for concern:

- The maternal death rate continues to increase in the United States;
- The U.S. maternal death rate is much higher than in other industrialized countries; and
- The United States lacks a reliable way to collect information about why this is happening and about which segments of the population are most vulnerable

Researchers analyzed data collected in the District of Columbia and 27 states that include a pregnancy question on the U.S. standard death certificate filled out by physicians, medical examiners and coroners. While researchers did not find a significant increase in mortality rates for women under 40 who died during or soon after pregnancy, they did discover a jump (58 percent) in the number of maternal deaths with nonspecific causes.

"The large increases in maternal mortality rates for older woman and among nonspecific causes throw up a red flag about data quality problems," MacDorman said. "We need to address these issues immediately so that we are able to effectively target efforts to prevent maternal deaths and improve maternity care for the 4 million U.S. women giving birth each year."

The results of this study were published in *Obstetrics & Gynecology* and build upon earlier research by MacDorman and colleagues that revealed the U.S maternal death rate increased 27 percent overall between 2000 and 2014, while rates declined internationally. The research team recommends improving the pregnancy question data with periodic validation studies and data quality checks at both the state and national levels, as well as an increase in state maternal mortality review committees.

Maternal mortality has long been seen as a primary

indicator of the quality of health care both in the United States and internationally. In 1990, the United Nations named maternal mortality reduction as a Millennium Development Goal, leading to an unprecedented effort to reduce maternal mortality worldwide. Maternal mortality decreased by 44 percent worldwide from 1990 to 2015, including a 48 percent decline among developed regions. In contrast, the U.S. maternal mortality rate has not improved and appears to be increasing.

More information: Marian F. MacDorman et al. Trends in Maternal Mortality by Sociodemographic Characteristics and Cause of Death in 27 States and the District of Columbia, *Obstetrics & Gynecology* (2017). DOI: 10.1097/AOG.0000000000001968

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