Researchers find wide variation in cesarean delivery rates among US hospitals

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Cesarean delivery is the most common surgery in the United States, performed on 1.67 million American women annually. Yet hospital cesarean rates vary widely according to new research from the University of Minnesota's School of Public Health.

The latest study, appearing today in Health Affairs, shows that cesarean delivery rates varied tenfold across U.S. hospitals, from 7.1 percent to 69.9 percent.

To arrive at their results, School of Public Health researchers examined hospital discharge data from a representative sample of 593 hospitals with at least 100 births in 2009.

Cesarean delivery is an important, potentially lifesaving, medical procedure and some variance in hospital rates would be expected based on differences in patient characteristics. In order to address this, researchers also examined cesarean rates among a subgroup of lower-risk patients: mothers whose pregnancies were not preterm, breech, or multiple gestation and who had no history of cesarean delivery.

Among this group of women with lower-risk pregnancies, in which more limited variation might be expected, hospital cesarean rates varied fifteenfold, from 2.4 percent to 36.5 percent.

"We were surprised to find greater variation in hospital cesarean rates

among lower-risk women. The variations we uncovered were striking in their magnitude, and were not explained by hospital size, geographic location, or teaching status," said lead author Katy B. Kozhimannil, Ph.D., assistant professor in the University of Minnesota School of Public Health. "The scale of this variation signals potential quality issues that should be quite alarming to women, clinicians, hospitals and policymakers."

Matter of Policy

Childbirth is the most common and most costly reason for hospitalization in the United States. Cesarean births are more expensive than vaginal deliveries, and cesarean rates have increased from 20.7% in 1996 to 32.8% in 2011. Nearly half of all U.S. births are financed by state Medicaid programs. In 2009 alone, public insurance programs paid out more than $3 billion for cesarean deliveries.

"Cesarean deliveries save lives, and every woman who needs one should have one," said Kozhimannil. "The scope of variation in the use of this procedure, especially among low-risk women, is concerning, as its use also carries known risks compared to vaginal delivery such as higher rates of infection and re-hospitalization, more painful recovery, breastfeeding challenges, and complications in future pregnancies."

The authors offer four major policy recommendations to reduce these variations:

First, women need to be offered the right care for their own pregnancies. Evidence from earlier studies shows women with healthy pregnancies benefit from care provided by midwives, support from trained doulas, and access to care in licensed birth centers. Women with low-risk pregnancies should have access to care options that may benefit them, with strong referral systems and specialized care for complications that

may arise.

More and better data on the quality of maternity care are needed to support the rapidly advancing clinical evidence base in obstetrics. Clinicians and hospitals cannot improve maternity care, and insurers cannot pay for such improvements, without clear and consistent measures of quality.

Tying Medicaid payment policies to quality improvement programs may influence hospital policies and practices and provide incentives and reward hospitals and clinicians for providing consistent, evidence-based care.

Finally, information about cesarean rates and maternity care should be more readily available to pregnant women, who have time, motivation, and interest to research their options. However, they lack access to unbiased, publicly-reported information about cesarean delivery rates and other aspects of maternity care.

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