

Maternal Morbidity in the United States

Older maternal age and poor health increase poor outcomes.

Severe complications during and after childbirth increased dramatically in the United States between 1998 and 2009, according to researchers at the Centers for Disease Control and Prevention, who analyzed the rate of complications, including stroke, heart attacks, and kidney failure.

The researchers examined the medical records of 738,124 women who gave birth between 1998 and 2009. For every 10,000 births in 2008–2009, there were 129 diagnoses related to severe delivery complications and 29 hospitalizations for severe postpartum problems. This reflected increases over the decade of 75% during deliveries and 114% in the postpartum period.

Serious complications occurring during delivery included acute renal failure, shock, myocardial infarction, respiratory distress syndrome, and need for blood transfusion. The number of cardiac operations performed also increased, which is likely linked to the increased prevalence of heart disease in today's pregnant women.

About 5,600 women died during delivery or postpartum hospitalization; more than half had respiratory distress syndrome and a third had acute renal failure. According to this study, severe maternal morbidity is 100 times more common than maternal death.

Changing health trends among younger people, such as increases in rates of obesity, diabetes, and high blood pressure, contribute to poorer birthing outcomes. Also, births among older women are increasingly common. "Women are coming into pregnancy older and

more obese than ever in modern history," says William Callaghan, lead study author. Such underlying health conditions drive up the risks of severe morbidity during or after childbirth.

"Nurses are the primary bedside caregivers for women during labor, delivery, and postpartum care," says Callaghan. Their early recognition of problems mobilizes care teams to respond to complications from hypertension, embolisms, and other causes.

"Nurses spot deteriorating conditions and activate teams to save patients," agrees Kathleen Rice Simpson, perinatal clinical nurse specialist at St. John's Mercy Medical Center in St. Louis. And the key to catching problems early, she says, is adequate nurse staffing. "If you don't have enough nurses on staff, you may not save patients," says Simpson.

The poorer health of today's mothers worries Simpson, as does the dramatic rise in the rate of cesarean births. Cesarean sections account for a third of all births in the United States, but the procedure can scar the uterus, leading to hemorrhage, uterine rupture, and other serious problems in subsequent pregnancies.



Rachel Eagly, of Lansing, Michigan, was 25 when she suffered a stroke a week after giving birth to her son, Aidan. Now 31, Eagly still has limited problems retrieving the right words when she speaks. Photo courtesy of Rachel Eagly.

As Simpson points out, a third of pregnant women today are obese, with comorbidities like diabetes and hypertension superimposed on pregnancy. Nurses can help to modify risk factors for maternal morbidity. Although some complications are unavoidable, the best outcomes are attained, says Callaghan, "when a woman is as healthy as possible going into pregnancy." Lifestyle and medical interventions that reduce risks, he says, "need to be discussed openly and often to maximize health prior to pregnancy." —*Carol Potera*

Callaghan WM, et al. *Obstet Gynecol* 2012; 120(5):1029-36.

NewsCAP

Fasting for lipid screening may be outdated. A large Canadian study of lipid subclass levels in men and women showed little variation between levels after fasting and levels without fasting. Variations in total and high-density lipoprotein cholesterol levels were less than 2%; in low-density lipoprotein cholesterol levels, less than 10%; and in triglycerides, less than 20%. Based on their findings, the authors conclude that fasting to determine routine lipid levels is likely not necessary. Although they outlined several study limitations, including the use of secondary laboratory data and a lack of patient outcome data, their results support similar findings from several smaller studies. The report was published in the December 10/24, 2012, issue of the *Archives of Internal Medicine*.