## Preterm Birth Tied to Lower Reproduction Rate as Adult

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en and women who were born preterm have lower reproduction rates than those born at term, and their reproductive success declines in tandem with their gestational age at birth, according to a population-based study of Norwegians.

Women born preterm also are at increased risk of delivering their own infants preterm, Dr. Geeta K. Swamy of Duke University Medical Center, Durham, N.C., and her associates said in the March 26 issue of JAMA.

The investigators used a "comprehensive, detailed, and highly accurate" medical registry of the long-term reproductive success of 1,167,506 people born in Norway from 1967 to 1976. Approximately 5% of cases were preterm and, as expected, in-

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fant and childhood mortality were higher in this group. For both men and women, reproduction appeared considerably lower for those born preterm, and appeared to directly increase until about 35 weeks of gestation. Among

women born at 22-27 weeks' gestation, 25% subsequently reproduced, compared with 68% of women who had been born at term. Of men born at 22-27 weeks, 14% reproduced, compared with 50% of those born at term.

Women born preterm had a similar "dose-dependent" risk of delivering their own infants preterm. For women born at 22-27 weeks' gestation, the preterm birth rate was 14%; those born at 28-32 weeks had a preterm birth rate slightly higher than 9%, and those born at 33-36 weeks had a rate slightly lower than 9%. Women born at term had a 6% rate of delivering preterm.

Similar patterns were seen for fetal still-births and for infant mortality, the investigators said (JAMA 2008;299:1429-36).

Dr. Swamy and her associates speculated that "while biological factors may be at the root of the problem, interrelated social and economic stressors likely also diminish reproductive ability."

Lingering medical or cognitive problems among survivors of preterm birth may account for difficulties finding a mate. Educational achievement was lower among adults born preterm, but could have resulted directly from preterm birth or more indirectly from being born into "a high-risk social setting with poor parental education and a high rate of unmarried parents," the researchers said.

In an editorial comment accompanying this report, Dr. Melissa M. Adams and Dr. Wanda D. Barfield of the Centers for Dis-

ease Control and Prevention, Atlanta, said the findings "should be interpreted with caution" because "the majority of preterm infants have good health and good reproduction." On the other hand, reproductive trends in Norway represent "a best-case scenario" given that country's homogeneous population and universal access to health care (JAMA 2008;299:1477-8).



