

## **Studies link maternity leave with fewer C-sections and increased breastfeeding**

By Sarah Yang, Media Relations | 05 January 2009

BERKELEY — Two new studies led by researchers at the University of California, Berkeley, suggest that taking maternity leave before and after the birth of a baby is a good investment in terms of health benefits for both mothers and newborns.

One study found that women who started their leave in the last month of pregnancy were less likely to have cesarean deliveries, while another found that new mothers were more likely to establish breastfeeding the longer they delayed their return to work.

Both papers were part of the Juggling Work and Life During Pregnancy study, funded by the Maternal and Child Health Bureau of the U.S. Health Resources and Services Administration and led by Sylvia Guendelman, professor of maternal and child health at UC Berkeley's School of Public Health. The research takes a rare look into whether taking maternity leave can affect health outcomes in the United States.

"In the public health field, we'd like to decrease the rate of C-sections (cesarean deliveries) and increase the rate of breastfeeding," said Guendelman. "C-sections are really a costly procedure, leading to extended hospital stays and increased risks of complications from surgery, as well as longer recovery times for the mother. For babies, it is known that breastfeeding protects them from infection and may decrease the risk of SIDS (Sudden Infant Death Syndrome), allergies and obesity. What we're trying to say here is that taking maternity leave may make good health sense, as well as good economic sense."

The study on the use of antenatal leave - time off before delivery with the expectation of returning to the employer after giving birth - and the rate of C-sections is the first examination of birth outcomes in U.S. working women, the researchers said. It will appear in the January/February print edition of the journal *Women's Health Issues*.

The researchers analyzed data from 447 women who worked full-time in the Southern California counties of Imperial, Orange and San Diego, comparing those who took leave after the 35th week of pregnancy with those who worked throughout the pregnancy to delivery. Only women who gave birth to single babies with no congenital abnormalities were included in the analysis. They adjusted for factors such as gestational age, infant's sex, maternal race and ethnicity, occupation, body mass index and height.

Using a combination of post-delivery telephone interviews and prenatal and birth records, the researchers found that women who took leave before they gave birth were almost four times less likely to have a primary C-section as women who worked through to delivery.

The study authors pointed out that the United States falls behind most industrialized countries in its support for job-protected paid maternity leave. The federal Family and Medical Leave Act provides for only unpaid leave of up to 12 weeks surrounding the birth or adoption of a child.

The bulk of studies on leave-taking and health outcomes from other countries suggest that taking leave prior to birth can be beneficial. The authors point to a macroanalysis of 17 countries in Europe that linked failure to take such leave with low birthweight and infant mortality. Rates of pre-term delivery were lower among female factory workers in France if the women took antenatal leave, and a study conducted in several industrialized countries found that paid leave, but not unpaid leave, significantly decreased low birthweight rates.

According to the U.S. Census, among working women who had their first birth between 2001 and 2003, only 28 percent took leave from their jobs before giving birth while an additional 22 percent quit their jobs. Twenty-six percent of women took no leave before birth.

"We don't have a culture in the United States of taking rest before the birth of a child because there is an assumption that the real work comes after the baby is born," said Guendelman. "People forget that mothers need restoration before delivery. In other cultures, including Latino and Asian societies, women are really expected to rest in preparation for this major life event."

The authors added that financial need may also deter women from taking leave in the last month of pregnancy. Only five states - California, Hawaii, New Jersey, New York, Rhode Island - and the territory of Puerto Rico offer some form of paid pregnancy leave, and none offer full replacement of the woman's salary.

The study on maternity leave and breastfeeding is in the January issue of the journal *Pediatrics*. Using data from 770 full-time working mothers in Southern California, researchers assessed whether maternity leave predicted breastfeeding establishment, defined in this study as breastfeeding for at least 30 days after delivery. Phone interviews were conducted 4.5 months, on average, after delivery.

In this study, women who had returned to work by the time of the interview took on average 10.3 weeks of maternity leave. Overall, 82 percent of mothers established breastfeeding within the first month after their babies were born. Among women who established breastfeeding, 65 percent were still breastfeeding at the time of the interview.

Researchers found that women who took less than six weeks of maternity leave had a four-fold greater risk of failure to establish breastfeeding compared with women who were still on maternity leave at the time of the interview. Women who took six to 12 weeks of maternity leave had a two-fold greater risk of failing to establish breastfeeding.

Having a managerial position or a job with autonomy and a flexible work schedule was linked with longer breastfeeding duration in the study. After 30 days, managers had a 40 percent lower chance of stopping breastfeeding, while those with an inflexible work schedule had a 50 percent higher chance of stopping.

Overall, the study found that returning to work within 12 weeks of delivery had a greater impact on breastfeeding establishment for women in non-managerial positions, with inflexible jobs or who reported high psychosocial distress, including serious arguments with a spouse or partner and unusual money problems.

"The findings suggest that if a woman postpones her return to work, she'll increase her chances of breastfeeding success, especially if she's got a job where she's on the clock and has less discretion with her time," said

Guendelman. "Also, women who are in jobs where they have more authority may feel more empowered with how they use their time."

The American Academy of Pediatrics (AAP) recommends that babies be breastfed for at least the first year of life, and exclusively so for the first four to six months.

According to the AAP, increased breastfeeding has the potential for decreasing annual health costs in the U.S. by \$3.6 billion and decreasing parental employee absenteeism, the environmental burden for disposal of formula cans and bottles, and energy demands for production and transport of formula.

The study authors noted that just having maternity leave benefits offered by an employer was not helpful in breastfeeding establishment unless the leave was actually used, indicating the importance of encouraging the use of maternity leave and making it economically feasible to take it.

"These new studies suggest that making it feasible for more working mothers to take maternity leave both before and after birth is a smart investment," said Guendelman.

*Other co-authors of the paper in Women's Health Issues are Michelle Pearl and Steve Graham, senior research scientists at the Sequoia Foundation, a California-based non-profit organization focused on public health research; Alan Hubbard, UC Berkeley assistant professor of biostatistics; Dr. Nap Hosang, lecturer at UC Berkeley's Maternal and Child Health program and a practicing obstetrician; and Martin Kharrazi, research scientist supervisor in the California Department of Public Health Genetic Disease Screening Program.*

*In addition to Guendelman, Pearl, Graham and Kharrazi, the Pediatrics paper was co-authored by Jessica Lang Kosa, research associate, and Julia Goodman, former graduate student, both at UC Berkeley's School of Public Health.*

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