

Nursing improvements could boost outcomes for underweight black newborns

23 September 2014, by Jeff Tolvin



Underweight newborns are fragile and not ready to fight infections, which more than double their mortality rate and exacerbate developmental issues, notes the study's co-author, Rutgers' Jeannette A. Rogowski.

The health outcomes and quality of care for underweight black infants could greatly improve with more nurses on staff at hospitals with higher concentrations of black patients, according to a new study co-led by a Rutgers researcher.

The study, published in the journal *Health Services Research*, found greater nurse understaffing and worse practice environments at disproportionately black hospitals contributed to [adverse outcomes](#) for very low birth weight infants, or those weighing less than 3.2 pounds at birth, born prematurely in those facilities.

The researchers studied two perinatal quality standards – [hospital-acquired infection](#) and discharge without having started [breast milk](#) – both of which can have lifetime health consequences for underweight infants. In hospitals that serve disproportionately more black infants, infections were 29% more frequent and discharge to home without breast milk was 47% more frequent.

The study, "Disparities in Perinatal Quality Outcomes for Very Low Birth Weight Infants in Neonatal Intensive Care," incorporated data on 8,252 underweight infants in 98 neonatal intensive care units (NICUs) throughout the country and the results of a survey of 5,773 NICU nurses.

"Babies born with very low birth weight are fragile and not ready to fight infections, which more than double the mortality rate and exacerbate developmental issues," said Jeannette A. Rogowski, co-author of the interdisciplinary study and professor in health economics in the Department of Health Systems and Policy in the School of Public Health at Rutgers University. "Lack of breast milk could lead to growth and health issues over the life course."

But Rogowski stressed that the findings are actionable and the economic implications for addressing them are significant.

"What we found is preventable," she said. "Hospitals should consider increasing nurse staffing and improving work environments. Many payment systems to hospitals now include incentives to improve the quality of patient care. Under Medicaid, hospitals will lose money if infants acquire hospital infections that increase their hospital stay."

The study highlights dramatic differences in the distribution of care for black infants, with seven out of 10 underweight black infants born in hospitals with a high concentration of [black patients](#). Nearly three-fourths of [underweight](#) black infants are born in a third of hospitals that care for critically ill newborns. Only 1 in 20 black infants are born in hospitals with better nursing characteristics.

NICU nursing features ultimately accounted for one-third to one-half of hospital-level [health](#) disparities.

Provided by Rutgers University

APA citation: Nursing improvements could boost outcomes for underweight black newborns (2014, September 23) retrieved 12 April 2021 from <https://medicalxpress.com/news/2014-09-nursing-boost-outcomes-underweight-black.html>

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