Children's Hospital of Philadelphia
PolicyLab

Differential Effects of Delivery Hospital on Mortality and Morbidity in Minority Premature and Low Birth Weight Neonates

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OBJECTIVE: To describe variation in mortality and morbidity effects of high-level, high-volume delivery hospital between racial/ethnic groups and insurance groups. STUDY DESIGN: Retrospective cohort including infants born at 24-32 weeks gestation or birth weights ≤2500 g in California, Missouri, and Pennsylvania between 1995 and 2009 (n = 636,764). Multivariable logistic random-effects models determined differential effects of birth hospital level/volume on mortality and morbidity through an interaction term between delivery hospital level/volume and either maternal race or insurance status. RESULT: Compared to non-Hispanic white neonates, odds of complications of prematurity were 14-25% lower for minority infants in all gestational age and birth weight cohorts delivering at high-level, high-volume centers (odds ratio (ORs) 0.75-0.86, $p < 0.001$-0.005). Effect size was greatest for Hispanic infants. No difference was noted by insurance status. CONCLUSIONS: Neonates of minority racial/ethnic status derive greater morbidity benefits than non-Hispanic white neonates from delivery at hospitals with high-level, high-volume neonatal intensive care units.

Journal:

Journal of Perinatology
Authors:

Yannekis G, Passarella M, Lorch S

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