



## Mothers, places and small for gestational age births: a cohort study.

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**Abstract:** Objective This study examines whether neighbourhood deprivation increases the risk of giving birth to a small for gestational age (SGA) infant, after accounting for individual-level maternal socioeconomic characteristics. Design An open cohort of women, aged 20-44 years, was followed from 1 January 1992 through 31 December 2004 for first singleton births. The women's residential addresses during the two consecutive years preceding the birth of their infants were geocoded and classified into three levels of neighbourhood deprivation. Gestational age was confirmed by ultrasound examinations. Multilevel logistic regression models were used in the statistical analysis. Setting Sweden. Results During the study period, women gave birth to 720 357 infants, of whom 20 487 (2.8%) were SGA. Age-adjusted incidence rates of SGA births increased with increasing level of neighbourhood deprivation. In the total population, 2.5% of births in the least deprived neighbourhoods and 3.5% of births in the most deprived neighbourhoods were SGA. A similar pattern of higher incidence with increasing level of neighbourhood-level deprivation was observed across all individual-level sociodemographic categories, including maternal age, marital status, family income, educational attainment, employment, mobility and urban/rural status. High neighbourhood-level deprivation remained significantly associated with SGA risk after adjusting for maternal sociodemographic characteristics (OR 1.28, 95% CI 1.22 to 1.34). Conclusions This study is the largest to date of the influence of neighbourhood on SGA birth, with SGA confirmed by ultrasound examination. Results suggest that the characteristics of a mother's neighbourhood affect the risk of delivering an SGA infant independently of maternal sociodemographic characteristics.

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