

206435 Social deprivation and very preterm birth: A study of 4 French and English regions

Monday, November 9, 2009: 8:35 AM

[Jennifer Zeitlin, DSc](#), Epidemiological Research Unit on Perinatal Health and Women's and Children's Health; UPMC Univ Paris6, French Institute for Health and Medical Research (INSERM), Paris, France

Hugo Pilkington, PhD, Epidemiological Research Unit on Perinatal Health and Women's and Children's Health; UPMC Univ Paris6, French Institute for Health and Medical Research (INSERM), Paris, France

Elizabeth S. Draper, PhD, Dept of Health Sciences, University of Leicester, Leicester, United Kingdom

Evelyne Combier, MD, PhD, Center for Population Epidemiology - EA4184, Hopital du Bocage, Dijon University Hospital, Dijon, France

Emile Papiernik, MD, Department of Obstetrics and Gynecology, University of Paris 5 René Descartes, Paris, France

Background: Social factors affect the risk of preterm birth and may be more strongly associated with very preterm birth. We aimed to assess the effect of social deprivation on the risk of very preterm birth and the survival and short term morbidity of very preterm infants.

Methods: Infants from the MOSAIC population-based cohort of births between 22 and 31 weeks of gestation in 2003 from four English and French regions (N=3940) were geocoded to their neighborhood census tracts. Singleton and multiple very preterm infants were compared to infants enumerated in the census using neighborhood deprivation scores derived from census data. The impact of the deprivation score on mortality and short term morbidity after very preterm birth was also estimated controlling for maternal and neonatal characteristics.

Results: 35.4% of very preterm singleton infants lived in the 4th deprivation quartile (most deprived) versus 16.6 in the 1st quartile (OR=2.1 (1.8-2.5)) with odds ratios ranging from 1.5 (1.1-2.1) to 2.5 (1.9-3.2) in the 4 regions. In contrast, there was no difference between multiple very preterm infants and the comparison population of infants from the census. The social deprivation score was not associated with survival or morbidity at discharge after very preterm birth.

Conclusions: There was a strong association between neighborhood deprivation and the risk of very preterm birth in four European regions for singleton births, but none with short term prognosis after very preterm birth. Socio-spatial analyses underscore the fact that infants discharged home after very preterm birth live in less advantaged neighborhoods.

Learning Objectives:

Describe a method for using census data to assess socio-spatial inequalities in risk of very preterm birth when data on social status are not available in medical records

Keywords: Pregnancy Outcomes, Social Inequalities