termed the Hispanic paradox. Recent research suggests that this phenomenon may be partly explained by the areas in which Hispanic people live. Hispanic mothers living in counties with a high proportion of Hispanic people (Hispanic density) have lower rates of infant mortality and smoking during pregnancy. In this paper, we investigate whether or not Hispanic density is associated with better birth outcomes for mothers of other ethnicities.

**Design** Multilevel analysis of the US Linked Birth and Infant Death Dataset 2000 and US census data at county level.

**Setting** USA.

**Participants** 2 274 247 White and 581 151 Black non-Hispanic mothers of singleton births.

**Main outcome measures** Infant mortality, low birthweight, preterm delivery and maternal smoking during pregnancy.

**Results** Living in counties with a higher percentage of Hispanic residents was associated with reduced risk of all outcomes for non-Hispanic White and Black mothers and infants in analyses adjusting for individual and area level socio-demographic characteristics. The reduction in odds was greatest for maternal smoking during pregnancy. White mothers living in counties where more than half the residents were Hispanic had their odds of smoking during pregnancy reduced by approximately 80% (OR 0.19 95% CI 0.11 to 0.33), relative to comparable mothers living at Hispanic densities of 0 to 1%. Similar reductions in risk of maternal smoking during pregnancy were found for Black mothers (OR 0.14 95% CI 0.14 to 0.51). Infant mortality was reduced by approximately a third for both Black and White mothers living in counties with a high proportion of Hispanic residents. In addition, higher Hispanic density was associated with modest but significant reductions in the risks of preterm delivery and low birthweight.

**Conclusions** Living in Hispanic communities appears to have health benefits for those of non-Hispanic origin.

**Background** Irish Travellers have a lower life expectancy than the general Population. Objective health-status indices are consistently poorer in Traveller and Gypsy populations than in other comparably deprived social groups. Self-rated Health (SRH) is established as a valid indicator of objective health status.

**Methods** As part of an all-Ireland census of 10 618 Traveller families both North and South (response rate 80% overall) employing a novel audio-visual computer interview methodology with peer researchers to overcome literacy barriers, a personal, structured interview was conducted with a random 20% sub-sample of adults (n=2065, 43.5% male). This analysis describes predictors of SRH in those adults, within health domains such as socio-demographic, environmental, lifestyle and psychosocial factors (including those related to culture/identity, and to social capital such as experiences of discrimination). Six models were constructed initially for each domain separately and then a final backwards stepwise logistic regression model was chosen that included 36 potential predictors from all domains of health, with self rated health as a outcome variable dichotomised into categories good (excellent, very good or good) vs fair or poor.

**Results** SRH was rated as excellent, good or very good by 82.6% of respondents and was age-related. Those who reported limiting disability/long-term illness were excluded. Each separate domain model showed variables predictive of SRH. On adjustment for age-group and sex in the social capital model for instance, experience of discrimination (OR 0.5, p=0.02), low levels of trust (OR 0.6, p=0.04) and worry about getting fair treatment (OR 0.6, p=0.007) were independently inversely associated with good SRH. In the final model, independent positive predictors of good SRH were having a flush toilet (OR 2.2, p=0.02), considering where you live to be
healthy (OR 1.9, p=0.02), going “on the road” at least twice in the last year (OR 2.5, p=0.03) and a brisk walk at least once in the last week (OR 2.4, p=0.000). Good SRH was inversely associated with increasing age-group (p=0.000), smoking (OR 0.6, p=0.03), activity-limiting ill health for ≥1 day in the last month (OR 0.4, p=0.001), chronic health condition diagnosed by the GP (OR 0.4, p=0.002), and having been screened for hypertension, high cholesterol or diabetes (OR 0.6, p=0.03).

**Conclusion** There is a clear relationship between established health determinants and SRH in the Traveller community, suggesting the importance of both material and psychosocial factors. The directionality of the relationship between cultural factors and lifestyle cannot be inferred in these models.

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**Pregnancy and/or smoking**

**058** JUST LOOK FOR AN ASHTRAY: PRAGMATIC FACTORS ASSOCIATED WITH SMOKING RELAPSE POSTPARTUM

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**Objective** Most women who stop smoking during their pregnancy will relapse within the first 6 months after birth, with health risks to the mother and family. There have been few UK-specific studies identifying factors associated with relapse. Such information would help healthcare providers identify those at most risk so that extra support and resources can be targeted. We examined whether a small set of factors that are potentially readily measured or observable in routine health care settings were associated with women at risk for relapse postpartum.

**Design and setting** Analysis of the first wave of the Millennium Cohort Study. Variables in the final model were selected using backwards logistic regression weighted to account for the complex survey design.

**Participants** 2353 natural mothers who reported quitting smoking during their pregnancy.

**Main outcome measure** Postpartum smoking relapse.

**Results** 55% of mothers who quit during pregnancy were smoking again at 9 months. Only 16.2% of smoking couples quit together. The strongest risk factors were related to postnatal smoking status and single parenthood. Compared to mothers with a non-smoking partner, the risk of relapse was higher for those with a partner who smoked at 9 months (OR 3.2, 95% CI 2.6 to 3.9), a partner who smoked antenatally (1.2, 1.4 to 2.1), and those who had no live-in partner postnatally (3.2, 2.2 to 4.8) or antenatally (2.3, 1.5 to 3.4). Other significant risk factors remaining in the models were the mother having no-one to share her feelings with, drinking 1–2 times a month or 1–2 times a week, having fewer educational qualifications and more children in the household. Factors that did not appear to be influential in the final models were age, ethnicity, change in marital status from birth to 9 months, depression history, financial status, timing of entry into ante-natal care, feelings about the pregnancy or breastfeeding.

**Conclusion** Pragmatic variables can be used to identify women at higher risk for relapse. The validity of these findings are potentially limited by the inability to measure antenatal intent to relapse, the smoking cessation and relapse prevention interventions actually received, and timing/sequence of relapse for partner-mother pairs in this data set. Both partner smoking habits and single marital status are strongly associated with relapse and can be readily identified both antenatally and postnatally by healthcare providers.

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**Maternal and paternal smoking during pregnancy and trajectories of growth and adiposity in the offspring**

**059**

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**Objective** To explore the associations of maternal smoking during pregnancy with offspring trajectories of height, weight and adiposity and to compare these with associations with paternal smoking to determine whether any associations are driven by intrauterine mechanisms.